



MONTENEGRO

MINISTRY OF SUSTAINABLE DEVELOPMENT
AND TOURISM

NATIONAL STRATEGY FOR SUSTAINABLE DEVELOPMENT OF MONTENEGRO

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Dear readers,

The National Strategy for Sustainable Development by 2030 (NSSD) represents a long-term development strategy of Montenegro which sets out solutions for sustainable management of four groups of national resources: human, social, natural and economic ones, which are set as priorities of the overall sustainable development of the Montenegrin society. In terms of objective and integrated consideration of sustainability of national development, Montenegro has been one of the first countries in the world to fully embrace and integrate into its system the United Nations' requirements set out in the 2030 Agenda for Sustainable Development of the United Nations.

We considered analytically the problems we have encountered so far, while taking into account best international experiences, thus designing a detailed plan to facilitate progress in the following priority areas set out in the NSSD by 2030: enhancement of human resources and strengthening social inclusion; support to the values, norms and patterns of behaviour that are relevant for sustainability of the society; preservation of the natural capital; introduction of green economy; management serving the purpose of sustainable development and financing serving the purpose of sustainable development. In doing so, we will ensure that the overall development of Montenegro is based on accountability and make knowledge and technological innovation drivers of the sustainable management of national resources.

In addition to making changes to the traditional patterns of behaviour and adoption and implementation of the development decisions, implementation of the NSSD by 2030 also requires improvement of the existing institutional set-up and of the system for sustainable development financing, as well as systemic organisation of monitoring of the progress made in implementation of the NSSD, which is done by applying sustainable development indicators. At the same time, implementation of the NSSD by 2030 is a part of the new economic governance which has



become binding not only on the EU Member States, but also on the states involved in accession process, such as Montenegro.

Objective consideration of the state of play first of all includes quantification of whether and to what extent we undermined sustainability of natural and social resources of Montenegro. Supported by prominent European and local experts, we introduced systemic indicators for sustainable development of the country such as: human development index, ecological footprint, Domestic Material Production (DMC), Resource Productivity (RP) and space consumption.

According to the results achieved in the period from 2006 to 2015, a noticeable increase in ecological footprint of Montenegro has been recorded (by +45%). It means that growth of economic activity was made possible by utilisation of natural resources and bio-capacities of Montenegro. Moreover, results also reveal that resource consumption in Montenegro is lower compared to many European countries: Finland, Sweden, Norway, Estonia, Latvia, Denmark, Bulgaria, Croatia, Hungary, and that European countries are better positioned in terms of how much they reduced resource consumption due to their increased application of knowledge and technological innovation. This is indeed an aspect we have to pay particular attention to in the time to come in

order to ensure continuation of economic growth, while sustainably using natural resources on the basis of the best approaches.

The NSSD defines the model for reducing Domestic Material Consumption by 20% by 2020 compared to the average value from the period 2005–2012, which is to be done by increasing productivity and ensuring more efficient use of raw materials, facilitating finalisation of the raw material processing and manufacturing process, engaging domestic labour force and services, primarily in sectors such as tourism, agriculture, food production, industry, wood processing. In that regard, we urge all stakeholders in the society to make their contribution to the achievement of this demanding goal.

It is worthwhile noting that the human capital and knowledge we have in Montenegro make it possible to plan such development path. According to the analyses performed by UNDP, Montenegro is ranked as a society with high human development. A + 3% growth of human development indicator was recorded in the period from 2006 to 2013, which exceeds considerably the trend of the countries of our region.

The NSSD sets out the goals involving reduction of space consumption and sustainable planning of land use which should also constitute one step further towards sustainable use of resources of the coastal zone, which none of the tourist countries in the Mediterranean has achieved so far. The goals set in this way are also integrated in the draft Special Purpose Spatial Plan for the Coastal Zone, with the expectation that such solutions will be accepted in the phase of adoption of this plan.

The NSSD by 2030 sets out realistic frameworks of economic growth. Medium-term growth projections show the average real growth rate of 4% per annum by 2020 and 4.5% by 2030. It is possible that it will be much higher, but we designed our plan to be objectively feasible in different circumstances so that it does not undermine sustainability of natural resources. This realistic

growth means that we will double GDP of Montenegro in fifteen year's time, whereas income per capita should reach approximately EUR 11,500 (GDP/PC) in 2030.

Such growth will contribute to the growth of employment in the age group 15 to 64 years, from 52.2% to 56% by 2025, bringing 20,000 new jobs and income per capita equalling EUR 10,000 by 2025, and to 57.5% by 2030, bringing 32,000 new jobs and income per capita equalling EUR 11,500 GDP/PC by 2030.

Employment in tourism sector will grow at a considerably faster pace than total employment, i.e. it will grow faster than employment in other sectors. Based on forecasts made by the World Tourism and Travel Council, the relative share of tourism and travel sector in total employment in Montenegro will increase from 10.3% (18,500 jobs) in 2015 to 13.8% by 2026 (26,000 jobs).

The parameters mentioned above will lead to a decline in unemployment rate from 17.6% in 2015 and enable approximation to the EU average, i.e. one-digit value.

To reach the goals set in this way, we will provide quality education and life-long learning for all. Through continuation of the vocational education reform, we focus activities on forming vocational education which will match labour market needs, as well as on establishment of the quality system in which qualifications are based on competences and successful application of the acquired knowledge and skills. We will place strong focus on the opportunities afforded by non-formal education, particularly for youth, through the programmes implemented by business sector and non-formal education programmes for youth in the country and abroad.

Priority is given to the achievement of economic and social security of youth by facilitating access to the labour market and job finding, as well as by making sure that youth become more active and motivated participants in the development of Montenegro. For that purpose, the NSSD sets

out pronatalist measures, including mechanisms such as tax and other reliefs for families with children, improvement of the quality of life in urban areas through availability of affordable flats for youth, facilitation of access to the labour market etc.

Responsibility towards future generations binds us to take human-oriented approach which enables sustainable and mutually linked utilisation of value of the four groups of national resources. For that reason, I remain convinced that consistent implementation of the NSSD will lead to the achievement of ten core elements of the vision of sustainable development of Montenegro and sustainability of national resources, thus safeguarding the right to development of each future generation. This includes right of an individual, right of a family and preservation of family values, as well as the rights of the broadest social groups within frameworks of governance at the state and local levels.

Successful implementation of the NSSD by 2030 requires active engagement of all stakeholders in the society, whom I urge to make full contribution in order for Montenegro to continue to move at an accelerated pace towards achievement of the development goals and to meet our expectations in the context of implementation of the national sustainable development policy.



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Introduction

1.1. General circumstances significant for sustainable development of Montenegro

Decision to have Montenegro developed as ecological state requires dedication, endurance, bold decisions and significant financial investments. Declaration of Ecological state Montenegro, adopted by Montenegrin Assembly on September 20, 1991, states that “by respecting our due to the nature which is the source of our health and inspiration of our freedom and culture, we turn ourselves to the protection of hers, in the name of our own survival and the future of our successors“. Following that decision, Constitution of Montenegro from 1992 contains definition of Montenegro as ecological state and the same was confirmed by the Constitution from 2007.

Facing consequences of unsustainable development tendencies incurred due to: inherited structural disbalance of socialist

planned economy from the period before the 1990s, abrupt drop in overall socio-economic values during the 1990s, tendency to procure accelerated economic growth, continuous accelerated prosperity and to compensate for missed opportunities by introducing economic reforms during transition period in 2000, require determined and efficient actions. These actions that aim at finding the way towards sustainable future and abandoning unsustainable values, norms and development patterns represent at the same time answers to leading global challenges on the way towards achieving sustainable development goals (SDGs) of the United Nations.

Namely, in the last 100 years, number of inhabitants in the world was quadruplicated, life expectancy has significantly increased, usage of fossil fuel is fourteen times higher, while the scope of production in global terms, is twenty- two times higher. Even though in last four decades the number of inhabitants living in extreme poverty has been reduced, differences between regions and countries have grown in respect to social and economic indicators. Linear model of economic growth “take, produce, spend and discard” based on assumption that all materials taken from nature are inexhaustible, turned out to be unsustainable. According to some projections, the world will soon reach its maximum in oil production that will be accompanied by annual reduction in quantities available for exploitation for 1-7%, whilst search for energetic resources will precipitously grow due to accelerated growth of the number of inhabitants and increased need for higher life standards.

The United Nations Millennium Ecosystem Assessment¹ confirms that 15 out of 24 ecosystem services have significantly been degraded in the last fifty years. Carrying capacity of the planet Earth has been exceeded, and an especially worrying fact is the velocity with which animals are being extinct, changes in nitrogen cycle and greenhouse gas emissions. According to OECD calculations, global losses and threats to biodiversity mainly originate from soil conversion, including conversion of valuable natural areas into agricultural ones and conversion of agricultural into construction areas, logging, soil erosion, etc. Climate changes have become global threat and a survival issue.

It is obvious that mankind “has been spending more than it had”. It has used and exploited its natural resources, whereas they had no ability to regenerate themselves. At that moment not only natural resources have been violated, but also socio-economic systems have been loaded. Namely, until second half of the twentieth century, mankind established production and consumption methods that dictate accelerated exploitation of natural resources, as the basis of human existence, bringing to the extinction of numerous flora and fauna species, climate changes, impoverishment of non-renewable resources. After that period, it has become obvious that with new technologies and existing behavior in respect to consumption it is impossible to meet the needs of today’s 7

¹ The Millennium Ecosystem Assessment is a project launched by the United Nations, implemented in the period from 2001 till 2005, with the aim to evaluate changes in the ecosystem on the planet, as a consequence of human activities, and to give scientific evidence on justifiability of sustainable development and preservation of the ecosystems on the planet.

billion inhabitants and expected 9 billion by 2050 – our planet Earth does not have sufficient capacities for that. Societies need to change their values and objectives to which they were sticking so far – aside from increasing their well-being, it is important to establish permitted limit levels that are not supposed to be exceeded while creating and increasing their well-being.

Despite global economy is expanding, maintaining and rising the level of income of individuals and communities are being obstructed by the fact that with the growth of international competition, possibilities of employment decrease. Care for those who are excluded from work market is being obstructed by reduced income of communities and increased expectations. The expansion of the incomes gap creates the basis for incurrence of social extremes, the expansion within knowledge, inequalities regarding access to information, resources, workplaces, medical care, training and education. Therefore it is ultimate moment to move from the approach with which obtaining income is based on exploitation of natural resources to the approach based on sustainable management of human and social resources. On this road entire mankind needs to give its contribution, Montenegro included.

1.2. Significance and position of national policy for sustainable development of Montenegro

Guided by the decision to establish an ecological state, Montenegro is among the first states from South-Eastern Europe region that established strategic and institutional framework for sustainable development in accordance with the standards of developed countries of the European Union. In cooperation with the University for Peace and Development, in 2001 a comprehensive document „Montenegro’s development directions as an ecological state“ was prepared. At the same time this document also represented a national response to goals set by the Agenda 21². After political circumstances got stabilized and European perspective opened for the countries of the South-Eastern Europe region, Montenegro made a significant step forward in respect to defining national policy for sustainable development and establishing accompanying institutional framework. After a successful participation at the World Summit on Sustainable Development in Johannesburg, a National Council for Sustainable Development was constitut-

² Agenda 21 is a global action plan on sustainable development for the 21st century with which obligation to take action on global, regional and local level is defined by organizations within the UN system, governments and leading groups in each area where negative impact of human activities on the environment is registered. The Agenda was adopted at the UN Conference on Environment and Development i.e. the first Earth Summit on sustainable development held in Rio de Janeiro in 1992.

ed as an advisory body to the Government of Montenegro with the aim to strengthen the capacities for the implementation of sustainable development policy. During the period from 2002 the Committee was being presided by the Prime Minister, and since 2013 it is being presided by the President of the State.

Parallel to the beginning of the implementation of sustainable development program and project, the drafting process of National strategy for sustainable development of Montenegro initiated. The strategy absorbed the most significant decisions from national and European documents, and it was drawn up in cooperation with the Mediterranean Commission for Sustainable Development (MCSDD) and Mediterranean Action Plan of the United Nations Environment Program (UNEP/MAP). Particular value to this document was given by its quinquennial action plan for the period 2007–2012 with which measures for achieving goals of sustainable development in 24 priority areas of sustainable development in Montenegrin society were defined. After five years of implementation, solid results were achieved –share of implemented measures is 53%, whereby the area of environment to a certain extent lagging behind compared to the results obtained in the area of economics, and somewhat less behind compared to the results obtained in the area of social development. Even though it corresponds to aggravating circumstances faced by the society in the period of transition of entire socio-economic ambience, we are aware of the seriousness of facing with the challenges that accompany still present unsustainable development trends.

During preparation of the Third Earth Summit on Sustainable Development (Rio+20

Summit), within international frameworks of action, answers to mutually confronted development flows were intensively searched for. The 2030 Agenda for Sustainable Development, adopted in September 2015 during 70th session of the United Nations General Assembly, represents the framework for implementation of ambitious agenda laid down by the final document of Rio+20 Summit. For its extent and significance the 2030 Agenda for Sustainable Development is a document without precedent. All states members of the United Nations adopted it and it relates to everybody, whilst taking into consideration different national circumstances, capacities and level of development, respecting national policies and priorities. 17 universal goals and 169 specific tasks are being established that relate to the entire world, equally to developed and developing countries. These goals and tasks are integrated and indivisible and evenly include three dimensions of sustainable development. Goals and tasks of sustainable development are defined as aspirational and global, where every Government has the right to establish proper specific tasks, guided by global level of ambition, taking into consideration national circumstances. States need to independently decide how to introduce those aspirational and global goals into national planning processes, policies and strategies.

With the new National Strategy for Sustainable Development of Montenegro by 2030 (NSSD) the policy of sustainable development of Montenegro is being improved by establishing a comprehensive framework for national response to challenges that are being met on the way toward sustainable development of Montenegrin society until 2030, whilst taking into consideration implementation results of previous NSSD and requirements in the process of accession of

Montenegro to the European Union. In this context, the new NSSD is at the same time setting the platform for transferring global goals and tasks into national frameworks. Drafting process of the NSSD by 2030 uses positive experiences from global and European processes as well as those from the Mediterranean region, and it is also based on the principles and recommendations of the Rio Declaration and Agenda 21, as well as of Declaration and implementation plan from Johannesburg. The NSSD also relies on the United Nations Millennium Declaration³ and on results of implementation of Millennium development goals. Thereby it remains consistent with widely adopted definition of sustainable development from the Brundtland report⁴, where the meaning of sustainable development is defined as “development which meets the needs of current generations without compromising the ability of future generations to meet their own needs”.

3 The Millennium Summit of world leaders took place at the UN headquarters in 2000. In that occasion, the General Assembly ratified Millennium Declaration as a political document of the UN for the 21st century. The Millennium Development Goals were established with the aim to follow the implementation of the Millennium Declaration.

4 With the Resolution no. 38/161 of 19 December 1983, the UN General Assembly confirmed the establishment of a special commission / World Commission on Environment and Development within UNEP for preparation of a report on environment named „Environmental Perspective to the Year 2000 and Beyond“ including proposed strategies for sustainable development. This report is also well known under the name Brundtland report or Our Common Future; presented in 1987 promoting the need to integrate economic development, natural resource management and their preservation.

The NSSD is **umbrella, horizontal and long-term development strategy of Montenegro** that relates not only to environment and economics, but also to irreplaceable human resources and valuable social capital that should ensure prosperous development. Positioned in such a way, this strategy gives answers to: identified unsustainable development trends; incompatible sectoral policies both between themselves and with the NSSD, and also with environmental protection policy; institutional framework that is not compatible with necessities to implement sustainable development policies and with requirements of good governance; incompatibility of the system of public finance with the need for horizontal and vertical positioning of sustainable development priorities within national strategy policies, plans and programs, respectively incompatibility of actual actions with expressed political support and official decisions regarding sustainable development of Montenegro.

Environmental, economic and social aspects of development of Montenegro in last decades indicate that needs of future generations can be compromised not only by quantitative and qualitative degradation of natural resources, but also by constantly lower availability of other resources (human resource as development presupposition and economic capital). On the basis of own experience and lessons learned, whereas in connection to obligations towards future generations, as well as on the basis of experiences of key international actors who are setting the course towards sustainability through global dialog, while assessing the condition of national resources within this document, an innovative assessment of the overall condition of Montenegrin national resources was given – through four-dimensional development concept. Namely,

basic principle of the NSSD is that production of goods and provision of services, key to improvement of material, mental and spiritual wellbeing of each generation, require **four basic, essential resources: human, social, natural and economic**. These are key national resources that need to be sustainable by preserving “the right to development” to each coming generation. The right to development is being observed in respect to the right of a human-individual, family and family values and widest social groups, within governance at the national level and at the level of local communities. Our responsibility towards future generations makes us commit to the approach on the basis of which the man is in the center of development enabling sustainable and mutually connected valorization of four groups of national resources. That is why it is essential to enable the essence of sustainability is made of consistent political actions aimed at development of our successors’ resources and at preventing decisions that reduce our national resources.

1.3. Structure and content of the NSSD by 2030

In accordance with the methodology for the NSSD drafting adopted on 26th session of the National Council for Sustainable Development and Climate Changes, as well as with significance of the 2030 Agenda for Sustainable Development of the United Nations as ones of key documents for defining and implementing national sustainable development policy, **structure and content of the NSSD by 2030 are established** as follows:

1.Introduction - gives answer to the question why and in which national and global circumstances the drafting of the new NSSD by 2030 is being realized, as well as the methodology of its drafting.

2. In the second chapter, Assessment of the state of national resources , four parts were elaborated: state of **human resources** : demographic resources, health, education and skills; state of **social resources** , elaborating themes as follows: social capital, attitude of key actors towards sustainability of development, system of value, trust in institutions and rule of law, organizational culture, employability and social cohesion, balanced regional development; cultural development and integral protection and cultural heritage and landscape management; state of **natural resources**, elaborating the state of: biodiversity, forests, ecosystem services, water, air, soil, environment and health, nonrenewable resources – space, metals and nonmetals, as well as the impact of natural and anthropogenic hazards; state of **economic resources** , elaborat-

ing macroeconomic trends, development management and state of sectors of key significance for sustainable development of Montenegrin society. Special emphasis in the second chapter is given to national institutional and legal framework which is significant for the system of **governance for sustainable development**.

3. The third chapter gives the overview of key unsustainable development trends and needs in context of reaching 2030 strategic goals of sustainable development of Montenegro, within all four groups of resources – human, social, natural and economic, as well as in the context of enabling optimal institutional-legal framework for governance and financing for sustainable development.

4. The fourth chapter defines **strategic goals and measures** for: improvement of human resources condition and strengthening social inclusion; improvement of demographic trends and reduction of demographic deficit; support to values, norms and behaviour patterns which are important for sustainability of society; preservation of natural capital and introduction of green economy, as answers to problems in reaching sustainable development of Montenegro identified in chapter 3. Thereby, national needs were examined through DPSI analysis (analysis of drivers–pressures–state and impacts), as well as monitoring results regarding implementation of the NSSD during the period 2007–2012, along with weaknesses and needs of sustainable development of Montenegrin society established within preparation process for participation at the Rio+20 Summit, as

well as within national constellations regarding post-millennium development goals. In that way established needs were related to challenges in the process of accession of Montenegro to the EU, with the emphasis on EU roadmap to a Resource Efficient Europe and 2020 EU strategy. Among key documents taken into consideration there is the Human Development Report⁵ from 2014 regarding resource efficiency, respectively recommendations of the Government of Montenegro in context of its application in the process of development of new national sustainable development policy. Strategic framework positioned in such a way relates directly to challenges regarding the transposition of 17 goals and 169 tasks of sustainable development, defined by the 2030 Agenda for Sustainable Development of the United Nations, into national context, so that NSSD measures give answer to national needs and at the same time connect them to the fulfillment of global obligations.

5. The fifth chapter gives recommendations for establishing the framework of

5 UNDP office prepares regular annual Human Development Reports (NHDR) whose aim is to draw attention to important socio-economic development issues in the country, stimulate debates and mobilize support for necessary improvements and changes. In 2014 the Government of Montenegro passed the Information on the Report „On our way towards Resource Efficient economy – fulfillment of promises Montenegro made in order to become ecological state“ and adopted conclusions by which the Ministry of Sustainable Development and Tourism was bind to update the National Strategy for Sustainable Development of Montenegro by 2030 with the recommendations contained in this Report.

financing for sustainable development of Montenegro. Basic principles of financing for sustainable development are elaborated in detail and possible sources of financing are taken into consideration in respect to requirements contained in the Addis Ababa Action Plan: domestic public sources, domestic and international private business and financing, international development cooperation, international trade as development engine, public debt management and intergenerational balance, science, technology, innovations and capacity development. The overview of conditions and needs in the area of financing for the environment through planned establishment of Eco-fund is given and merging of this framework with wider context of financing for sustainable development.

6. The sixth chapter represents the **NSSD Action plan by 2030** that establishes a set of **measures** and their **sub-measures** grouped within strategic goals of sustainable development of Montenegro. Baring in mind horizontal and multi-sectoral nature of problems and in respect to them established needs of sustainable development of Montenegro until 2030, strategic goals are structured in the following priority themes : **improvement of the state of human resources and social inclusion strengthening, support to values, norms and behavior patterns which are important for the sustainability of the society, natural capital preservation and green economy introduction, governance for sustainable development, financing for sustainable development.** Strategic goals and measures, with detailed elaboration through **sub-measures** and **targets**, and with recognized

subjects responsible for their implementation, are established as answers of Montenegrin society in time horizon until 2030 in order to overcome problems, weaknesses and disadvantages of the existing state of development and governance system. At the same time, priority themes, strategic goals, measures and sub-measures of sustainable development until 2030 represent the **answer of Montenegro to challenges in context of the implementation of 2030 Agenda for Sustainable Development.** Being that the NSSD by 2030 represents strategic framework for the transposition of global goals and indicators of sustainable development into national context, strategic goals are defined by taking into consideration national circumstances, but by taking care about national commitments in context of the implementation of 2030 Agenda for Sustainable Development. Out of 169 specific tasks of sustainable development, structured in 17 goals of sustainable development, 167 were transposed into measures defined in action plan in accordance with national circumstances and future needs. Two tasks were not relevant for Montenegro, i.e. 9.a and 9.c. It is important to mention that more than 166 transposed tasks are recognized as relevant for more priority themes of the NSSD, which confirms the universal nature and inter-sectorial character of this Strategy and emphasizes the need for functional integration of all dimensions of national development sustainability. Out of all relevant tasks, 99 of them are recognized within one priority theme, 45 in two, 17 in three, while 4 are recognized in four and one in five priority themes of the NSSD. Everything previously stated **confirms**

that with this strategy the basis was set for monitoring the implementation of the 2030 Agenda for Sustainable Development of the United Nations within national context.

7. Seventh chapter proposes the **system for monitoring the implementation** of the NSSD by 2030 and **reporting on the progress** that will be achieved during that process. In this chapter a complex set of indicators are established which should enable efficient monitoring and reporting, whereas it is made of indicators of sustainable development taken from the UN list, specific national indicators, relevant indicators of separate international organizations and complex indicators for cumulative monitoring of sustainable development trends of Montenegro. Through implementation of chosen complex indicators, an intersection of conditions of national resources consumption is given through qualified overview of biological capacities condition, domestic resources consumption, human resources development, space consumption, thus their mutual connection.

The NSSD Action plan by 2030 also defines managerial measures that are essential for the purpose of establishing information system and data bases as key instruments for enabling the application of measurable indicators within monitoring process of the progress achieved in implementation of sustainable development goals. Also, this chapter establishes assignments to competent subjects in respect to collecting and storing incoming data for the calculation and statistical elaboration of indicators, as well as to defining mode of data exchange and enabling their mutual compatibility. Special emphasis

is given to the need to strengthen the capacities necessary for the improvement of statistical programs in order to respond to reporting needs through application of sustainable development indicators from the UN list.

1.4. Vision of sustainable development of Montenegro by 2030

Starting from the vision of sustainable development of Montenegro designated by the NSSD from 2007, as well as from assessments on development priorities of Montenegro stated by the citizens of Montenegro during consulting process “Montenegro I want” within post-millennium consultations, and later on within consulting process that accompanied drafting of the new NSSD, the vision of sustainability of national development until 2030 was designated and it consisted of ten key elements:

1. Montenegro is sustainable, open, tolerant, inclusive and prosperous society where the quality of life of each individual is continuously enhanced and where human and social capital is being invested into.
2. Socio-economic development of Montenegro is based on coherent relation between man and nature, and on efficient management of human, social, natural and economic resources.
3. Montenegro is a state of established Montenegrin identity where all differences are managed with tolerance by

respecting them and treating them as potentials and resources.

4. Montenegro is rule of law where dignity of each individual is respected, where there is no discrimination on any basis and where everybody, regardless of his/her differences, has the opportunity and support for complete realization of his/her human potential.

5. Montenegro is a community based on openness and cultural diversity, both in respect to preservation of all forms of heritage developed through historic epochs, and in respect to coexistence with contemporary forms of cultural expressions, where areas of distinguished natural, spatial and cultural value are preserved and positioned in function of sustainable development.

6. Demographic trends are enhanced in Montenegro by reduction of demographic deficit and realization of population growth until 2030 for 1,4% in respect to 2015. It was achieved by successful realization of strategic goals and measures defined by the National Strategy for Sustainable Development by 2030, with the priority given to those that are relevant for the implementation of green economy, improvement of the state of human resources and strengthening of social inclusion, support to values, norms and behavior patterns which are significant for the sustainability of the society.

7. Everybody in Montenegro has equal access to quality and inclusive education at all levels and during his/her lifetime, while the system of medical care is quality and efficient and provides healthy life to citizens at all stages of their lives, and especially to sensitive and endangered

groups of citizens, whereas inequalities in health are reduced.

8. Montenegro is an ecological state where symbiosis between traditional way of living and natural ambience is preserved, environment is healthy, and values of biodiversity, waters, sea, air, soil, space, as well as values of other natural resources are improved and preserved for generations to come. Ecosystem values and services are preserved, coverages of preserved natural, cultural and spatial values are increased and sustainably and efficiently managed, adaptive capacity of individuals, ecosystem and economic sector in respect to the impact of climate changes is increased and pollution at key ecological »hot spots« is remediated. Share of energy out of renewable sources is continuously growing, while energy efficiency and transfer of technological solutions is enabled which contributes to raising the quality of life in urban areas and to reducing greenhouse gas emissions. Reduction of the level of greenhouse gas emission until 2030 is achieved for 30% in respect to 1990.

9. Montenegro achieves continuous, inclusive, equally balanced and sustainable economic development at regional level, full and productive employment and dignified labor for everyone. Development routes of the usage of natural resources on one hand and development routes of the economic activities and social well-being on the other, mutually diverge, and are inversely positioned in respect to the growth of pressures on the environment, by enabling : i) economic activity to be aimed at sustainable usage of natural resources with reduction of negative impacts on natural ambience,

ii) economy greening by application of patterns of sustainable consumption and production, of resource efficient and circular economy. The concept of sustainable economic growth is being affirmed and it includes: health, education, healthy environment and sustainability of natural resources, socially responsible action, social inclusion and good governance, as an alternative to the concept that is exclusively based on the affirmation of competitiveness of economic ambience and economic growth.

10. Montenegro achieved goals and tasks set by the 2030 Agenda for Sustainable Development of the United Nations and successfully participates in global partnership for sustainable development. Montenegro established efficient system of good governance and sustainable financing for sustainable development of Montenegrin society on the basis of achieved social consensus and full political support to sustainable development of Montenegro.

2



A group of hikers is seen from behind, walking up a rocky, grassy mountain trail. The hiker in the foreground is wearing a blue long-sleeved shirt, khaki shorts, a grey cap, and a large black backpack. Other hikers are visible further up the trail. The background shows rolling green hills under a bright blue sky with scattered white clouds.

Assessment of the state of national resources

Ecological, economic and social aspects of the development of Montenegro in last decades indicate that needs of future generations can be jeopardized not only through quality and quantity degradation of natural resources, but also through lower availability of other resources (human and social resources as presumptions of entire socio-economic development, economic capital). Starting from own experience and lessons learned while trying to fulfill obligations towards future generations, as well as from experiences of key international actors who are setting the course towards the implementation of Sustainable development goals (SDGs) through global dialog, while assessing the state of and analyzing entire Montenegrin national resources, an innovative approach was applied, based on all three dimensions of sustainability, as well as on European development pillars (EU2020), whereat resources are approached in an innovative way, through

four-dimensional development concept. Namely, basic principle of this strategy is to have the production of goods and provision of services as key for improvement of material, mental and spiritual well-being of present and future generations, require **four basic groups of necessary resources: human, social, natural and economic.**

These are key national resources that must be sustainable in order to preserve the „right to development“ to every generation to come. The right to development is observed in respect to the right of a human-individual, family right, including also preservation of family values, as well as the right of the widest social groups from the aspect of governance at state level and at local community level.

Our responsibility towards future generations obliges us to continuous protection, maintenance and development of these four basic groups of national resources. Therefore the essence of sustainability is made of consistent political action aimed at resource development of our successors, by stimulating investments related to this goal and preventing decisions that reduce our national resources.

2.1. State of human resources

Human capital represents cumulative knowledge, skills, values, quality personal relations and other resources with which certain society disposes of. OECD defines human capital as knowledge, skills, competences and qualities embodied in an individual, which enable creation of personal, social and economic well-being.⁶

Economic development significantly relies on human capital – knowledge, skills, competences and personal characteristics that enable people to contribute to their own and social welfare, as well as to the welfare of their states. Economic successes of individuals and economy entirely depend on how extensively and effectively people are investing in themselves.⁷ However, human capital impact goes farther than economy – human capital growth enhances levels of health, participation in community and increases chances for employment. In the basis of human capital concept there is “educational capital” (formal, non-formal and informal learning and education), health capital and migration capital, i.e. mastering significant economic information.⁸

6 Centre for Educational Research and Innovation, “The Well-being of Nations – The Role of Human and Social Capital”, OECD, 2001.

7 Becker, Gary S., “The Age of Human Capital”, in E. P. Lazear: Education in the Twenty-First Century, Palo Alto: Hoover Institution Press, 2002

8 Ibidem

Human Capital Report for 2015, drawn up by World Economic Forum, which encompasses 124 states, does not include Montenegro.⁹ Out of surrounding countries, Bosnia and Herzegovina wasn't taken into consideration either, Slovenia is at 15th position, Croatia at 36th, Serbia at 50th, Macedonia at 55th and Albania at 66th position. The report emphasizes that talent, not capital, is key factor that connects innovations, competitiveness and economic growth in the 21st century.

Human capital is developed in a way that the state invests in improvement of people's quality of life through public educational system, health and social programs, employment programs and additional education for employees who contribute to economically stronger and socially healthier society. It is essential that Montenegro creates mechanisms that encourage sustainable development of human resources and affirms social cohesion in order to have good demographic, health and labor market policy.

2.1.1. Demographic resources

Montenegro population census results from 2011 demonstrated continuation of aging trends and slower growth of Montenegrin population noted in the 1980s, which, in combination with internal and external migrations, significantly influenced the change of demographic image of Montenegro.

Population aging is a consequence of decreasing rate of population growth and

growth of expected life duration in precedent period, which resulted in continuous increase of participation of older citizens in the overall population and growing mortality rate. Average age of women in Montenegro in 1971 was 29,8, and of men 27,4 years, while in 2011 average age of women increased to 38,4, and of men to 36 years.¹⁰ Population growth decreased from 5.636, as noted in 1991, to 1.368 in 2011. In the year 2011, population growth was the lowest in the last twenty years. While rates of population growth in 1951 and 1961 were 20,8‰, i.e. 20,4‰, on last two population censuses these numbers were significantly different – 4,3‰ in 2003, i.e. only 2,2‰ in 2011.

Total number of inhabitants in Montenegro in 2011 was 620.029, while in 2003 it was 612.267¹¹. In the period between two censuses, total number of inhabitants grew for 1,3%. During the last decade of the 21st century, population growth slowed down and at the same time it was aging. Population movement, aside from biological factors, was also conditioned by overall socio-economic circumstances during this period, among which the most significant ones are: breakup of former SFRY and wars in surrounding countries, international community sanctions, deep economic crisis, political problems, etc. Total population growth in the period 2003–2011 was 18.196, which indicates that in that same period negative migration balance of 10.434 inhabitants was achieved. It is important to refer to different

⁹ World Economic Forum, "Human Capital Report 2015", , <http://reports.weforum.org/human-capital-report-2015/>

¹⁰ UNDP, „National Human Development Report 2016 – Informal work: from challenges to solutions“, UNDP office in Montenegro, Podgorica, 2016.

¹¹ Calculated as per methodology from 2011 (Statistical Office MONSTAT Communication no. 321 from 30.11.2012)

dynamics of trends in number of inhabitants in the period from 2003 to 2011 if we pass from state to regional and municipal level. Population growth between two censuses was recorded in coastal (3,7%) and central region (5,8%), unlike northern region that recorded a decrease (7,2%). Only six (out of 21) municipalities in Montenegro registered population growth (Bar, Budva, Podgorica, Rožaje, Danilovgrad i Tivat), while in the remaining municipalities the number of inhabitants decreased. This is especially emphasised in the municipalities of northern region, where the number of inhabitants decreased up to 29% (Šavnik).

Since 1991 the trend of declining level of births was continued, which was characteristic for the second half of the 20th century. The number of newborn children on annual level was constantly under the one achieved in 1991 (9.609). This trend of births represents the continuation of a long-term decline in fertility, which is a direct result of low reproductive norms accepted by the majority of Montenegrin citizens for a couple of decades now. Fertility of Montenegrin society is being seen as a complex phenomenon where a set of interlaced and cause-effect related components are involved:

- When biological factors are concerned, it should be borne in mind that Montenegrin society is aging (number of inhabitants over 65 years is getting bigger), which can influence further birth rate decline. Determinants that also influence birth rate decline are: changes in social status of women incurred as a consequence of education and employment, as well as inclusion of women in all segments of life.
- When economic and social factors are concerned, it is certain that significant

economic exhaustion of Montenegrin citizens can negatively influence birth rate. As part of former common and socialist state, Montenegro reached high threshold of social development, industrialization and urbanization. Position and health of women got improved, mortality rate of newborns declined and birth control established. After intensive growth in post war years, significant decline in number of children incurred, especially in urban areas. Insufficient protection of women at labor market, especially those working at grey economy, brings to greater existential insecurities that are negatively reflected to birth rate. Additionally, high unemployment rate among youth, due to economic uncertainty, reduces the number of those who decide to have children. Up to now, Montenegro did not seriously take into consideration pro-natality policy, either through tax or any other exemption whatsoever to families with children, even though lately we have initiatives in this area and some of them are already in the phase of their realization.

- When psychological factors are concerned, even though Montenegro has positive and relatively stable opinions regarding the significance of family, the fact is that the feeling of life securities is significantly prejudiced and it can influence the readiness to take responsibility for your successors. Montenegro as a state with a small number of inhabitants can come into the position with unequal gender balance, due to a more pronounced gender control at early pregnancy stage.

At the same time, growth in mortality rate is noticeable – from 6,8‰ in 1991 to 9,7‰

Table 2-1: *Regions of Montenegro, basic indicators, Source: Population census 2011, Statistical Office MONSTAT and author's calculation*

REGION	POPULATION*	SURFACE* (KM2)	POPULATION DENSITY	POPULATION %	TERRITORY %
Northern	177.837	7.304	24,35	28,7	52,9
Central	293.509	4.917	59,69	47,3	35,6
Coastal	148.683	1.591	93,45	24,0	11,5

in 2014. Cause of this phenomenon, for the most part, can be explained by intensification of demographic aging, but also by insufficient reduction of mortality by age with certain age groups. Therefore, with population aging we have the increase of the number of older people whose specific mortality rates are higher than specific rates for younger population.

Such demographic trends negatively reflect themselves to purchasing power, aggregate demand and technological development. Population aging faces Montenegro with growing health care expenses, slower growth of human capital and growing gap between unproductive and productive population, which in medium and long term aspect is reflected on reduction of income per capita, and respectively downfall in living standards.

During the 20th century Montenegro was characterized by population emigration that can be explained by low level of economic development, as well as by wars that took place during that period. Emigrants from Montenegro most frequently went to other republics of former Yugoslavia, and during 1990s and 2000s Western Europe and some countries overseas also became emigration areas. On the other hand, during examined period, some immigration to Montenegro was registered whose volumes however were lower than emigration. In the last de-

cade of the 20th century there were immigrations caused by wars on the territory of former Yugoslavia.

Financial uncertainty and better living conditions in the cities of central and coastal region significantly influenced internal migrations. Census data indicate that the share of population from northern region in overall Montenegrin population was continuously decreasing during whole second part of the 20th century, and the other two regions were growing – central since the census from 1948, and coastal since the census from 1961. Totally 47,3% of Montenegrin population in 1948 lived in northern region, and in 2011 that number is 28,7%. On the other hand, number of inhabitants in central and coastal region was growing. As per census from 1948, central region had 34,2% of overall number of inhabitants in Montenegro, while in 2011 central region was made of 47,3% of entire population. Number of inhabitants in coastal region, during examined period, was growing, but with lower rate in respect to central region. Share of inhabitants in coastal region grew from 18,5% in 1948 to 24,0% in 2011.

Unlike slow growth in number of inhabitants, during the period between two last censuses, the number of inhabitants grew for 27%, whereas number of inhabitants and number of apartments ratio was reduced, from 2,49 (2003) to 1,98 (2011). In two municipalities this ration is even lower

than 1 (Budva – 0,80 and Šavnik – 0,95), but with different causes; in Šavnik as a consequence of relocation, and in Budva as a result of construction industry expansion and recognition of the city as attractive tourist destination. These indicators naturally lead us to unequal development of existing regions (central, southern and northern). The fact that tells best about underdevelopment of northern region is that more than 50% of state territory is inhabited by less than one third of entire population. On the other hand, almost one fourth of Montenegrin population lives in just over 10% of its territory.

As per projections of MONSTAT¹², As Montenegrin population, by 2061, could find itself in the interval from 747 thousand (high fertility version) to 469 thousand (constant version).¹³ On one hand, this means that in

¹² Projections of MONSTAT regarding demographic trends in the period 2011–2060 were made in seven variants: 1) low fertility variant, 2) medium fertility, 3) high fertility, 4) constant fertility, 5) constant mortality, 6) constant variant and 7) zero migration balance. First four variants are mutually different from the aspect of adopted fertility variant, while combinations of hypothesis on mortality and migrations are identical for each one of them. For the fifth variant constant mortality per age and gender is presumed, while hypothesis on fertility and migrations are the same as with medium fertility variant. The sixth variant is based on the presumption that fertility, mortality and migration balance will be unchanged (constant) during entire projection period. For the seventh variant, the hypothesis on zero migration balance is adopted, also per age and gender, while hypothesis on fertility and mortality are the same as with medium fertility variant.

¹³ Statistical Office MONSTAT, “Projections of population of Montenegro until 2060, with structural analysis of population of Montenegro”, Podgorica, March 2014.

half-century period, achievement of “maximal” variant (significant fertility growth, reduction of mortality and positive migration balance) would cause growth of Montenegrin population in the amount of 127 thousand inhabitants (20,5% more in respect to 2011 census). On the other hand, achievement of presumptions on which “minimal” variant is based (fertility, mortality and migration balance will be unchanged during entire projection period) would bring to significant reduction of Montenegrin population, more precisely in the amount of 151 thousand inhabitants (24,3% less in respect to 2011 census, which would approximately correspond to the number of inhabitants in 1961). Achievement of three remaining projection variants would not result in more significant changes in number of inhabitants in 2061 – with constant mortality variant there would be a growth of 1,4%, with zero migration balance variant there would be a reduction of 0,2%, while in case of constant fertility variant the number of inhabitants would grow for 6,3%.

According to the results of stated projections, in 2031 Montenegrin population could find itself in the interval from 642 thousand (high fertility variant and growth of 3,5%, i.e. 22 thousand inhabitants) to 578 thousand (constant variant and reduction of 6,8%, i.e. 42 thousand inhabitants). Achievement of three remaining projection variant would not result in more significant changes in number of inhabitants in 2031 – with constant mortality variant there would be a growth of 0,1%, with zero migration balance variant there would be a growth of 2,6%, while in case of constant fertility variant the number of inhabitants would grow for 1,4%. With regard to the trend of slight growth in number of inhabitants in the period 2011–2015, the NSSD deems that constant fertility variant

and expected growth until 2030 for 1,4% or 6,5 thousand inhabitants, in respect to 2015, could represent realistic projection in context of achieving strategic goals of this strategy, i.e. global Sustainable Development Goals by 2030.

According to United Nations projections, negative demographic trends until 2050 will cause reduction of number of inhabitants in Montenegro for about 8,2%, so in 2050 in our country we'll have 574.000 inhabitants, which approximately corresponds to population from the 1970s.¹⁴ This data places us on the 26th position of states with the highest percentage of reduction of population in the world during mentioned period. Extremely bad situation is present in other states of the region – Bulgaria is on the 1st position of this negative list, Romania on the 2nd, Bosnia and Herzegovina on the 5th, Serbia on the 6th, Croatia on the 9th, Hungary on the 10th and Greece on the 16th position. The United Nations anticipate that by 2100 Montenegro will have even less inhabitants, i.e. only 437.000, which approximately corresponds to population from 1950.

Projections of MONSTAT until 2060 emphasize four significant factors:¹⁵

1. Population aging process will be one of the most important characteristics of demographic development of Montene-

gro, which, in the end of projection period, will be demographically older than fifty years before that. Such trends will be present in all regions of Montenegro, so inhabitants of all regions as well as of entire state will be in the stadium of profound demographic oldness.

2. Share of persons younger than 15 years in entire population of Montenegro in 2060 will be lower than in 2011.
3. As a consequence of first two factors, growth of dependency index will incur. In zero migration balance variant, this index will significantly grow, from 0,47 in 2011 to 0,75 in 2060.
4. Share of northern region in entire population of Montenegro will continue to decrease, while participation of central and coastal region will continue to grow.

Having in mind the above stated and in order to achieve current level of economic development, it will be essential to increase working activity (primarily of persons from 15 to 67 years of age) or to compensate for lacking labor force by employing from abroad or eventually by engaging older population (over 67 years of age). If we presume that nothing will change in the economy, and that behavior patterns on labor market will remain the same, then the number of population with working ability will be reduced, as well as GDP and living standard will fall. Population aging brings to increase of expenses that are being allocated from fiscal revenues, i.e. increase of expenditures for retiring allowances and for health care, as well as to higher duties for people with working ability. In the long term, there will be a reduction of national savings, which will potentially have negative consequences to economic growth, since without savings there will be no new investments.

¹⁴ United Nations, Department of Economic and Social Affairs – Population Division, “World Population Prospects – The 2015 Revision. Key Findings and Advance Tables”, New York, 2015.

¹⁵ Statistical Office MONSTAT, “Projections of population of Montenegro until 2060, with structural analysis of population of Montenegro”, Podgorica, March 2014.

According to MONSTAT scenario, until 2030 we can expect more intensive increase of the number of immigrants than of the number of emigrants, which will result in positive and growing migration balance.¹⁶ Migration in Montenegro will considerably be influenced by forthcoming integration into EU, as well as by global trends. Having in mind climatic suitability of Montenegro and EU integrations, it can be expected that certain number of immigrants will be ones belonging to older generation (as the case may be with Spain or Florida in the USA).

Within EU integrations, Montenegro cannot shrink from immigration flows, but it should lead deliberate cultural policy that will protect authentic cultural and identity values and parts of tradition that keep pace with the concept of sustainable development. Just like any other country, Montenegro will be exposed to cultural uniformity, as a consequence of globalizing trends and population opinion. Having in mind that Montenegro is a country with a small number of inhabitants, it will be necessary to invest additional efforts in cultural policies regarding preservation of authenticity and authentic identity of Montenegrin citizens. Origin of immigrants will certainly be changed in respect to the end of last and beginning of this century, when persons from former Yugoslav republic were dominant. According to one of MONSTAT scenarios, in the forthcoming period, mainly immigrants from Asia and Africa would be arriving, for different reasons, including ones who will require international protection.¹⁷ New in-

vestments will certainly bring to Montenegro labor force from other and distant areas, but it will also continue to attract labor force from the region. Having stated the above, we can conclude that it is important for Montenegro to have positive migration balance, possibly of younger labor force in their reproductive phase of life and with as high level of education as possible.

2.1.2. Health

Healthy population is potentially the most important resource of a society in all segments of its development, contributing to its overall social and economic progress. Because of that, particular attention needs to be dedicated to health and creation of conditions for preservation and improvement of health by involving all social sectors. Solidarity, universality, equality, availability and quality principles that are basis for building-up sustainable and integrated system of health care with the citizen in the center of the system, are bearers of socially oriented European health system towards which Montenegro is striving in its process of EU integrations. Health policy defines general goals as: extension of life expectancy, improvement of life quality in connection to health, reduction of risks in health and preservation from financial risks.

Expected life expectancy at birth in Montenegro, according to Eurostat data for 2013 is 74,1 years for men and 79,0 years for women, which is lower in respect to EU average, 77,8 years for men and 83,3 for women. Mortality rate of newborns, which represents significant indicator of one nation's health and level of health care development, as well as indicator of overall socio-economic development, in 2015 was 4,3 (on 1.000 live births), according to World bank's

¹⁶ Statistical Office MONSTAT, "Demographic Trends in Montenegro since the Middle of 20th Century up to 2050", Podgorica, December 2008.

¹⁷ Ibidem.

data. Despite the fact that this rate is among the lowest in the region, it is still higher in respect to EU average (3,7). Mortality rate of children up to five years of age, according to World bank's data, in 2015 was 4,7 (per 1.000 live births), which is also higher in respect to EU average (4,4). Data on maternal mortality demonstrate that in the period 2002–2012, only in 2007 we have had one case of death connected to pregnancy, giving birth and postpartum period. It should be mentioned that the problem in keeping records on mortality is evident, especially in the part of keeping up with causes of death. Registered demographic aging trend of Montenegrin population represents the opportunity towards further development of society, therefore, old people in Montenegro need to be observed as significant human and social resource. However, we should not neglect the fact that this process will also be accompanied by significant number of challenges. One of key goals, healthy life and promotion of well-being for everybody during their entire life, cannot be achieved without particular attention being dedicated to the health of old people. This presumes insisting on primary prevention. Bad health is not inevitable result of aging. Numerous health problems incurring during old age are connected to chronic diseases that can be prevented, postponed or put under control. Ever growing availability of assistive technologies, with the development of medicine and science, compensates for senses loss or deterioration of motor skills that affect old people. With different interventions to the environment, bigger and better availability of services can be provided, when it comes to old and decrepit persons. Through efficient health strategies, it is necessary to make health care really available to old people, in order to satisfy their health needs. For the

purpose of satisfying specific goals related to universal health care, specific needs of old people who frequently live with chronic diseases, need to be recognized through health care system. This will also imply financial protection from expenses that are destructive for a household, in order to ensure that investments result in equal distribution of health benefits. It is essential to work on introduction of sustainable models of long-term nursing and care in order to ensure to everybody a life with full respect of dignity, even under circumstances where there is a significant loss of life functions.

For the purposes of obviating multiple and complex challenges, in 2003 a reform of health system was initiated in accordance with Health policy until 2020, in order to improve the quality, equal availability, efficiency and financial sustainability of the system of procuring health care. First efforts of this reform were directed towards strengthening primary protection as the basis of health system, to have it, later on, continued through optimization of secondary and tertiary level. The process of health system strengthening was supported through introduction of integrated health care information system. Despite reform interventions, the system is still facing challenges in the part of providing services that relate to quality health care and insufficient integration of preventive programs, including also coordination among different levels of health care and procurement of continuity in service providing. Rational use of resources still represents a great challenge, influencing in that way financial sustainability of health system.

Chronic non-communicable diseases are leading cause of illnesses, invalidities and premature dying, as well as of great number

of potentially lost years of life.¹⁸ According to available data on death rate in Montenegro, from 2008 to 2012, chronic non-communicable diseases participated in overall causes of death with almost 80%, out of which over 60% were cardiovascular diseases and tumors. For almost half of entire number of dead (44,3%) the cause of death were heart and blood circulatory system diseases, and almost one quarter (23,4%) was caused by malignant tumors. In more than 10% of cases, the cause of death was unknown (symptoms, signs and pathological, clinical and laboratory results).¹⁹

Ischemic heart disease, cerebrovascular diseases, lung cancer, affective disorders (unipolar depression) and diabetes represent chronic non-communicable diseases that are responsible for almost two thirds of all present diseases. According to data regarding hospitalization in 2013, cardiovascular diseases are first in the structure of hospital morbidity as per discharge letters (15,2%), while in second place we have tumor treatment as cause of hospitalization (11,8%).²⁰ Respiratory system diseases were in third place (11,4%), while digestive system diseases (10,4%) were in fourth. Rate of hospitalization in 2014 was 134,2 per 1.000 persons. Since 2013, Montenegro established registers for chronic non-communicable diseases: malignant neoplasm, diabetes, acute coronary syndrome and cerebrovascular diseases. More complete data from these registers regarding total number of people with

afore-mentioned diseases are expected in the forthcoming period, as well as indicators that will be generated on the basis of these registers.

Use of tobacco and tobacco products, harmful use of alcohol, unhealthy/incorrect diet and physical inactivity are common risk factors for the majority of preventable non-communicable diseases and relate to behavior. Such risky behavior leads to four key metabolic (physiological) changes: higher artery blood pressure, higher glucose and cholesterol values in blood and higher body mass i.e. obesity. Stated risk factors are the leading ones for four groups of non-communicable diseases (cardiovascular diseases, malignant neoplasm, diabetes and chronic lung diseases) that can be distinguished by the number of illnesses, consequential invalidity and death.

According to data obtained from National health research (2008 and 2012), in 2008, 32,7% of adult population (20+ years) in Montenegro had hypertension or potential hypertension, and 55,1% was overweight. Only 11,5% of adults practiced physical activity more than three times a week. Smoking prevalence (regular or occasional) in 2008 was 32,7% among adults, while in 2012 it was 31%. In 2008 alcohol was consumed by 25,1% of adult population, on daily basis or from time to time; that percentage was significantly higher (32%) in 2012. The greatest significance in improvement of health is based on reduction of risk factors and promotion of health, disease prevention, treatment improvement, reduction of inabilities and premature deaths.

Montenegro went through „epidemiologic transition“, therefore bigger burden for its population are non-communicable diseases,

¹⁸ World Health Organization, „Montenegro: WHO statistical profile“, Last updated: January, 2015 <http://www.who.int/gho/countries/mne.pdf>.

¹⁹ Reports of the Institute of Public Health of Montenegro

²⁰ Ibidem.

instead of communicable ones. Nevertheless, there are still challenges in the area of communicable diseases. Aside from everyday need for supervision, prevention, fast detection, treatment, control and repression of diseases with communicable etiology, yet greater significance is given to cooperation with other states, due to increased number of passengers in international traffic, therefore increased risk to import diseases and to get an outbreak of eventual epidemics.

In the structure of communicable diseases in 2014 dominant ones were: respiratory communicable diseases (flue excluded) with 77,3% of total number of registered cases, enteric communicable diseases (11,6%) and parasitic diseases (9,2%).²¹ In 2014, in Montenegro we have had new 20 HIV/AIDS registered cases. In the moment of diagnosing HIV infection, seven newly registered persons were already in the stadium of AIDS, while 13 persons were registered in the phase of asymptomatic HIV infection. In that same year, two AIDS death cases were registered.²² In the last years, rate of newly registered cases of tuberculosis in Montenegro is reflected on low notification rate for EU region and for 2014 it was 18,2/100.000, while the percentage of multidrug-resistant tuberculosis in respect to total number of tuberculosis is 3,5. Tuberculosis mortality rate is 0,32/100.000 people.²³ Establish-

ing efficient control over cases of getting ill of tuberculosis through strengthening diagnostic capacities, better infection control and procurement of adequate supply of anti-tuberculosics for efficient and quality treatment of everybody affected by TB, including those with resistant TB, are all essential steps towards elimination of tuberculosis as public health problem in Montenegro, pursuant to National Tuberculosis Control Program.

Irrational use of drugs, especially antibiotics, is still one of those serious challenges of health system and generator of considerable part of overall healthcare expenditures in Montenegro. Montenegro is second in Europe for antibiotics consumption, right after Turkey, despite the fact that control measures for prescription and distribution of antibiotics were introduced.²⁴ Nearly one quarter of healthcare budget is being spent for drugs and medical devices. Irrational use of antibiotics is not only considerable expenditures generator in health care and burden to the budget, but also considerably contributes to creation of antimicrobial resistance (AMR), which becomes the cause of growing mortality rate, negatively affects the quality of health care, questions the success of treatments, surgical interventions and patients' lives, and complicates efficient control over communicable diseases, including infection control inside hospitals. Considerable efforts were invested with the aim to establish modern and sustainable transfusion system in Montenegro in order

21 Reports of the Institute of Public Health of Montenegro

22 Ibidem.

23 Ministry of Sustainable Development and Tourism, „IV Annual report on implementation of Millennium development goals in Montenegro: 1st January – 31st December 2014“, Government of Montenegro, Podgorica, September 2015

24 Versporten, A. et al, on behalf of the WHO/Europe-ESAC Project Group. „Antibiotic use in eastern Europe: a cross-national database study in coordination with the WHO Regional Office for Europe“. The Lancet Infectious Diseases. Volume 14, No. 5, p381–387, May 2014

to procure necessary quantities of blood for all patients in ordinary and extraordinary situations.

Vaccination against communicable diseases in Montenegro is being performed in accordance with annual immunization program and is binding for everybody at certain age, as well as other vaccines that are being taken in accordance with specific epidemiologic and clinical indications. In 2012–2014 reporting period, first interruption of endemic transmission of smallpox and rubella in Montenegro was registered, lasting 12 months, which represents significant national progress. Even though national coverage for binding immunization is relatively high, certain vaccines face obstacles in maintaining expected level of coverage (hardly accessible and socially endangered groups of population, continuity in vaccine provision, activities of anti-vaccination groups, etc.). On the level of Montenegro, during 2014, indicator showing biggest decline in achieved values is the one referring to the number of vaccinated children against smallpox, only 76,1%, which represents a considerable reduction in respect to 2013.²⁵ It is necessary to work on increasing the level of vaccinated children to at least 95%, with two doses of MMR vaccines, and make it one of health policy priorities. Aside from that, it is recommended to work on further strengthening of monitoring capacities for smallpox and rubella.

Comparative experiences indicate that incidence (illness frequency) and consequences

of getting ill due to communicable diseases are not equally distributed within the population. The poor, persons with low level of education and inhabitants of rural areas are facing bigger risks of getting ill²⁶. Health inequalities, as a result of difference in gender, should not be neglected. Therefore, through the platform of sustainable development it is necessary to intensify the efforts towards influencing the determinants of health in a more integrated and efficient way. For the purposes of implementation of legally binding International Health Regulations (IHR) and relating obligations, it is necessary to work on further strengthening of capacities for integrated monitoring of communicable diseases and other hazards, as well as further development of the system of instant notification and reaction to emergencies. Prevention and reduction of possibilities for disease outbreak, early detection of threats, and instant, efficient response require multi-sectoral cooperation and efficient communication about the risk.

Even though comprehensive researches have not been carried out so far, the ones with which interdependence between impacts of pollution and population health condition would be determined, in point 2.3.7 we have an overview of possible risks that environmental pollution generates in respect to population health.

Health care in Montenegro is being provided in health institutions that all together make a network of state health institutions as well as in privately owned institutions organized in a way to procure health care according to population needs and possibilities of health

²⁵ Ministry of sustainable development and tourism, „IV Annual report on implementation of Millennium development goals in Montenegro: 1st January – 31st December 2014“, Government of Montenegro, Podgorica, September 2015

²⁶ World Health Organization, “Social determinants of health”, http://www.who.int/social_determinants/en/.

system. Health care is being provided on three levels, where first one should satisfy 80–85% of the needs for health care. Development of public health doctrine pursuant to European guidelines and population health monitoring system as per comparable indicators, analysis and presentation of data are key elements for creation of health policy on the basis of evidence. Institute of Public Health of Montenegro forms expert bodies for drafting and implementing of activities in the area of public health and organizes education of personnel for their implementation.

When occupancy of hospital beds in 2013 is concerned, while having in mind total number of beds (2.416), it is evident that on daily basis there were 657 beds (in general hospitals 391 out of 1,120, and in specialist hospitals 56 out of 504, in Clinical center of Montenegro 156 out of 696 and in stationary health centers 54 out of 96).

Number of doctors in Montenegro in 2015 was 239 per 100.000 inhabitants, which is substantially lower than in EU countries where this number in 2012 was 334 doctors per 100.000 inhabitants. Participation of non-medical staff in total number of employed was constantly decreasing, but it is still high. In 1991 it was 28,8%, in 2008 it was on the level of 25,3%, while in 2015 it was 21,6%.²⁷ When human resources are concerned, inequality and disproportion in education and employment is noted. This is being a consequence of inadequate planning in previous period. For efficiency of health system and service quality, we need not only sufficient number of medical workers, but also to have a competent and respon-

sible medical worker adequately motivated, distributed per levels of health care and specializations and geographically, while following population health needs. Insisting on procuring adequate compensations for work done and results obtained is necessary, together with coherent application of control mechanisms and procurement of quality health care.

Even though guidelines of good medical practice for majority dominant diseases are adopted, their coherent implementation is still quite challenging, which is one of essential methods for improvement of health care quality. Aside from that, it is necessary to have planned guidance of continuous medical education and constant specialization of professional knowledge and skills of service providers within health care. Clinical guidelines are, in many aspects, different than non-clinical ones, care plan (such as nursing care plan) and algorithms. Among other things, they are used by multidisciplinary teams and have primary focus on the quality of provided health service, but they are also used to assist clinical workers and patients in making decisions on adequate health care in certain clinical circumstances. Clinical guidelines are still not completely developed in Montenegro.

According to last available data, over 95% of population residing in Montenegro is covered by obligatory insurance, in accordance with the rights resulting from obligatory insurance. Regarding vulnerable categories of population, it is important to mention that they have the same rights on health care as other parts of population, regardless of their characteristic (gender, nationality, religion, invalidity and other). Scope of rights on health care is defined by basic package of services for all levels of health

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care. Availability of health care is regulated by a network, but it is necessary to work on improvement of integrated health care. The state, in accordance with the principle of equality between men and women, procures equal availability of and accessibility to health care. Health system recognizes special needs of women in regard to health services, by taking into account biological, socio-economic and psychological factors that are different with men and women. However, thorough analysis of current health condition of women within the community, identification of health problems and their needs have not been procured. According to research regarding population health from 2012, majority of adult Roma population (82%) have their own GP, which is just under the average for Montenegro (89%). Even 93% of older population that also belongs to the most vulnerable population group, have their own GP, which is over Montenegrin average (89%).

Share of health care expenditures in GDP of Montenegro in 2013 was 6,49%²⁸. This indicator reached its peak in 2003 when it was 8,91%, and since then it was significantly dropping. In the period from 1995 to 2006, share of health care expenditures in GDP of Montenegro was never under 7,32%. It is important to point out that in the period to follow, from 2007 to 2013, values of this indicator never went over 7,25%, whereat in all these years, except in one (2012), it was under 6,92%. On the other hand, average share of health care expenditures in GDP, in mentioned period (2007-2013), in EU coun-

tries was never under 8,85%, and in 2013 it was 9,52%, while in countries SEEHN members (South-eastern Europe Health Network)²⁹ it never went under 7,06%, and in 2013 it was 7,34%. We can conclude that until 2006 share of health care expenditures in GNP of Montenegro was approximately on average levels of EU countries, and considerably over the average of SEEHN members. However, in the period since 2007 Montenegro records considerable drop in share of health care expenditures in GDP, so in 2013 it was far behind EU average (32% lower), and considerably behind SEEHN average (12% lower).

Share of health care expenditures in GDP of Montenegro in 2013 was 9,84%³⁰. We emphasize that share of health care expenditures in the budget is vital indicator with which it is confirmed that health represents a priority for one country, and that its value under 12% is unacceptable. This indicator reached its highest level in 2003 when it was 17,75%, and since then it records considerable drop. In the period from 1995 till 2007 share of health care expenditures in the budget of Montenegro was never under 11,39%. It is important to mention that in the period to follow, from 2008 till 2013, values of this indicator never went over 9,84%. On the other hand, average share of health care expenditures in the budget, in mentioned period (2008-2013), in Europe-

28 World Health Organization, Regional Office for Europe, European Health for All - database (HFA-DB), <http://www.euro.who.int/en/data-and-evidence/databases/european-health-for-all-database-hfa-db>

29 State members of South-eastern Europe Health Network are Albania, Bosnia and Herzegovina, Bulgaria, Montenegro, Croatia, Israel, Macedonia, Moldavia, Romania and Serbia.

30 World Health Organization, Regional Office for Europe, European Health for All - database (HFA-DB), <http://www.euro.who.int/en/data-and-evidence/databases/european-health-for-all-database-hfa-db>

an Union countries was never under 15,11%, and in 2013 it was 15,15%, while in countries members of SEEHN it never went under 11,44%, and in 2013 it was 12,36%. We are concluding that until 2004 share of health care expenditures in the budget of Montenegro was considerably over the average of EU countries and SEEHN members. However, in the period to come, Montenegro registers a harsh drop in share of health care expenditures in the budget, so in 2013 it was considerably behind EU average (35% lower), and pretty much behind SEEHN average (20% lower).

Share of OPP (Out of Pocket Payments) in health care expenditures in Montenegro, as an indicator of the level of financial protection of population when they reach for health service or needed medication, in 2013 was 42,67%³¹. Value of this indicator being over 40% not only represents disastrous expense for an individual and a household, but is also unacceptable, considering the level of development of the country. In the period from 1995 till 2006 OPP in Montenegro was never over 31%. It is important to mention that in the period to follow, from 2007 till 2013, values of this indicator never went under 32,55%. On the other hand, average OPP, in mentioned period (2007-2013), in the countries members of SEEHN it was never over 31%, and in 2013 it was 29,97%. We are concluding that until 2006 OPP in Montenegro was on the level of SEEHN members' level. However, in the period to come, Montenegro registers drastic growth in OPP, so in 2013 it considerably goes over SEEHN average (42% over).

The budget that in Montenegro is being appropriated for health care is 461 US\$ per

capita, that is 926 US\$ per capita, when purchase power is taken into consideration (PPP, \$).³² These appropriations are higher in respect to Albania (240US\$, i.e. 539 PPP \$) and Macedonia (312US\$, i.e. 759 PPP \$), on the level of Bosnia and Herzegovina (449\$, i.e. 928 PPP \$) and Serbia (475\$, i.e. 987 PPP \$), but considerably lower in respect to Croatia (982\$, i.e. 1.517 PPP \$) and Slovenia (2.085\$, i.e. 2.595 PPP \$). From the aspect of inequality, the analysis of service payment out of person's pocket shows that the poor are still giving more money for treatments and medications.³³

From all the above stated, we can conclude that with the investments into health care that are being reduced and high OPP, with chronic problem of inefficient disposal of resources and growing population needs, the question of sustainability of health system is inevitably being posed. Among main challenges in the process of reforming health system we have financial stability, system sustainability, as well as service efficiency both on primary and hospital level, because after comparing values of relevant health indicators with other countries, it is indicated that there is space to increase efficiency and quality of health services.

³² World Health Organization, Global Health Observatory. "Per capita total expenditure on health at average exchange rate (US\$)", data for 2013. http://www.who.int/gho/health_financing/per_capita_expenditure/en/

³³ World Bank, „Montenegro After the Crisis: Towards a Smaller and More Efficient Government“, World Bank Report No.65909-ME, 2012.

2.1.3. Education and skills

In the modern world that is constantly changing, it is necessary to keep the pace with time and constantly adopt new knowledge. Technological changes challenges, globalization processes, demographic trends, frequent changes of labor market demands impose the need to improve the quality of education system. Education is one of prerequisites for sustainable development. Green economy, environmental upgrading, poverty reduction and social exemption, as well as obtaining sustainable development as a whole, basically means quality education policies that are economically conceived also from the point of consumption of financial resources. Being that modern education strategy is based on the principle of lifelong education and learning society, lifelong learning has a key role to development of individuals and to improvement of economic potential of the state itself. Education development and adult learning is key factor to increase the level of knowledge and qualifications for different life tasks, improvement of life quality of every individual, procuring equal possibilities and social inclusion, successful development of economy and democracy.

In times where knowledge becomes key resource of sustainable development, education is the priority strategic interest of Montenegro, which requires having access to all levels of education at the level of highest possible responsibility. In the structure of their wealth, developed countries have even 81% of intangible capital (that includes human capital, social capital and institutional capital), while in countries with upper middle income this share is 69%.³⁴ This fact

indicates that acquisition of new knowledge, skills and values through education is a guarantee that such society can follow intense social and technological changes and challenges.

Education aims at developing students as independent, versatile individuals ready for critical thinking, research, acquisition of functional knowledge and skills that will enable them to actively participate in society, as well as consequently create society based on knowledge, thus increasing overall economic capacity of the state. Education system should continuously promote equality and social cohesion, improvement of creativity and innovativeness. Prerequisite for realization of set social goals (GDP growth, employment, life standard improvement, etc.), respectively economic progress means further continuous improvement of education through improvement of learning and teaching quality. This means professional development of teaching staff on all levels, application of modern teaching practice, access to early education and upbringing, inclusion of children from the most sensitive groups and children with special educational needs, accomplishment of active cooperation with parents and local communities, as well as procurement of higher standards in working and learning conditions.

Pre-primary education has a very important role in child development, as well as significant positive socio-economic effects on society as a whole.³⁵ Study practiced in 34

Wealth of Nations – Measuring Sustainable Development in the New Millennium”, WB, Washington DC, 2011.

³⁵ Heckman, J. J. “Policies to foster human capital”. Research in Economics, 54(1), 2000, str. 3–56.

³⁴ World Bank, The International Bank for Reconstruction and Development. “The Changing

countries OECD members (Organization for Economic Co-operation and Development) demonstrates that there is a connection between having pre-primary education and accomplishments on PISA testing.³⁶

Fifteen year olds who attended pre-primary education longer than a year were, on average, better in their reading skills than those who did not attend it. Numerous positive experiences in this area brought to a turning point in the way of thinking within scientific circles on global level, as well as to a more significant support of policy creators in respect to the significance of basic role of pre-primary education institutions. That role should be, primarily, educational and developmental.

Analysis of strategic and regulatory framework indicates that Montenegro recognized significance of pre-primary education for child development, as well as existence of good program basis for its improvement. In the last ten years Montenegro accomplished significant growth in respect to increased number of children in kindergartens (growth from 26% to 40% which means reaching the goal from previous Strategy). Enrolment rate of children from 3-6 years is 53%, while average attendance rate is 40%. Leading principle of the Strategy regarding early childhood and pre-primary education and upbringing in Montenegro (2016-2020) is to procure to all children, from their birth to school years, satisfaction of development needs through program-wise and infrastructure-wise adequate services, for which competent professionals and employees

will be in charge, with active engagement of community and parents. Strategy goals are: 1) Increase the coverage of pre-primary education and upbringing of all children, especially those from 3 years to their school years, in accordance with international standards; 2) Improve service quality in pre-primary education and upbringing; 3) Introduce innovative, optimal and sustainable financing models.

On the other hand, total budget for pre-primary education in Montenegro is 0,38% of GDP, which is significantly lower than the one in OECD countries, which for that cause on average allocate 0,50% of their own GDP.³⁷ If we compare different age groups, the number of pre-primary education children is lower among those of 0-3 years of age, where only 15% goes to nursery schools, in respect to those of 3-6 years of age, where more than 50% goes to kindergartens. Regional differences are well distinguished – out of overall number of children of 3-6 years of age, the highest rate is in Budva (94%), and the lowest in Rožaje (just over 10%). When it comes to sizes of educative groups for children of 3-6 years of age in public pre-primary institutions, even in that aspect, there are well distinguished differences per municipalities – from 41 children per group in Herceg Novi and Podgorica, up to only 12 children per group in Andrijevica. In coastal and central region of Montenegro there is a lack of spatial capacities, so many kindergartens operate above their capacities, while up north they operate under their full capacities. Still, there is a significant percentage of parents who be-

³⁶ OECD, "PISA in Focus: Does participation in pre-primary education translate into better learning outcomes at school?", Paris, OECD Publishing, 2011.

³⁷ Prica, Ivana, Čolić, Lazar and Baronić, Hana. "Study on investing in early childhood education in Montenegro", Podgorica, UNICEF Montenegro, 2014.

lieve that a child is better off at home than in pre-primary institution and they don't perceive the significance of pre-primary education in child development. Without systematic efforts to raise the awareness of parents regarding benefits and significance of pre-primary education, achieving universal coverage of children in Montenegro in pre-primary education will not be possible. In the structure of the staff there are practically no male educators.

Relevant legislative and strategic framework recognizes inclusive education as one of priorities in the system of education and upbringing with the aim to have the children with special educational needs educated in conditions that correspond to their needs and abilities. It was noted that municipalities don't have equally developed and uniformed system of providing health, social and educational services to children with special educational needs so they could reach their development and education achievements. In order to improve the existing system and to give efficient reply to individual child need, it is necessary to continuously improve conditions and quality of inclusive education.

Coverage of Roma-Egyptian children in pre-primary education and upbringing is 16% for boys and 21% for girls³⁸, which represents a particular problem. Pre-primary education and upbringing of Roma-Egyptian population is free of charge. Also, for Roma-Egyptian children in pre-primary age, in nine Montenegrin cities, preparatory kindergartens are organized in order to have

them easily adapted and included in the first year of elementary school.

Even with decennial reform, increase of investments and certain progress, education still does not have expected results in the area of knowledge and skills of pupils and students. On PISA testing in 2012³⁹ average achievement of our students in math literacy was 410 points (OECD average is 494 points), which places Montenegro on 54th position out of 65 countries. Average achievement in reading literacy was 422 points (OECD average is 496), which places us on 53rd position. When scientific literacy is concerned, achievement of our students was 410 points (OECD average is 499 points), which was just about enough for 56th position. In all three areas Slovenia, Croatia and Serbia were better ranked than Montenegro, while Albania was behind our country in all three areas. PISA results from 2015 will be published in December 2016. PISA results show that students do not study to interconnect their knowledge and place them into a new context, namely to successfully apply knowledge, skills and abilities gained at and out of school.

38 „Montenegro Roma Settlements – Multiple Indicator Cluster Survey (MICS) 2013 – Key Findings June 2014“, Podgorica, Statistical Office of Montenegro (MONSTAT) and the United Nations Children's Fund (UNICEF), 2014

39 PISA (Programme for International Student Assessment) is an international program for assessment of students' achievements taking place every third year, where primary focus is on how successfully students apply their knowledge, skills and abilities gained at and out of school, and not on what and how much they learned out of singular subjects at the end of their education, that is at the end of elementary school. Basic goal of PISA test is assessment of the quality and righteousness of education system, and results and analysis are significant for defining education policies and creating strategies of education system improvement.

For purposes of preparing for PISA testing in 2015, the Examination Center of Montenegro carried out a pilot testing. Measures for improvement of achievements were also defined: improve methodology for establishing working quality of educational institutions; improve professional competencies of teachers through training programs focused on acquisition of knowledge and skills for the development of: reading, math and scientific literacy of students, as well as successful realization of revised educational programs; improve curriculum and extra-curricular activities in the area of natural sciences; improve evaluation and grading of students' knowledge; improve textbooks for elementary school; improve application of information-communication technologies in teaching courses; promote PISA testing with the aim to raise awareness to students, competent and general public in regard to significance and benefits of PISA testing for educational policy. The Examination Center of Montenegro says that tested students were those who finished only third cycle as per reformed education system, therefore in 2018 it will be possible to compare old and new education system, namely only then it can be seen if the reform contributed to capacitating students for everyday life.

Number of enrolled Roma-Egyptian children increased from 536 in school year 2001/02 to 1.809 in school year 2015/16. In the 1990s Montenegro recognized the need to modernize the system in the area of upbringing and education and introduce inclusive orientation for children with disabilities and difficulties in their development. Inclusive education strategy (2008-2013) was adopted as first document with which, in the long term, inclusive education was being promoted in Montenegro, and it was followed by Inclusive Education Strategy (2014-2018).

So-called social model of disability is being used. Emotional, social characteristics and preserved abilities of the child are the basis for elaboration of Individual Education Plan (IEP) - the accent is on working activities, methods, forms and techniques with which academic and development goals are being achieved. Individual Transition Plan (ITP) was conceived: professional orientation and preparation for employment and independent life. On the level of local community, commissions (18) were established and constantly trained for directing children with special educational needs within education system. Children with mild and heavier disabilities are included in separate classes within seven ordinary schools and for them common teaching of some subjects is being realized with their coevals in ordinary classes. Special institutions were transformed in resource centers. Professionals from resource centers are engaged as support to ordinary education of children with disabilities. Schools procure assistant during classes whose description and scope is being defined by IEP. External assessment of knowledge is being adjusted to children with disabilities.

Bureau for Educational Services organizes mobile offices in order to help children with special educational needs in ordinary education. Catalogue of accredited programs regarding training teachers offers a set of programs that relate to inclusion. Institute for Textbooks and Teaching Aids made a set of thematic handbooks as a support to teachers and competent collaborators for inclusive education.

Reform of general high school education that started in 2002 and continued in school year 2006/2007, within which students of gymnasium started their education according to new education program, brought significant

changes in education system of Montenegro.⁴⁰ Changes principally refer to transition from substantial approach to class planning, to targeted and process-development planning, swap of curriculum concepts with the concept of education program and change of the structure of programs in question that contain program themes, operative goals, activities, concepts and correlation. Implementation period demonstrated that there are areas that need to be improved in order to enable development of critical and creative opinion, quality education and achievement of established knowledge standards to every student, regardless of their socio-economic position, gender or ethnic origin, as well as acquisition of key competencies. Teachers need to use their skills and knowledge in a way to build a partnership relation with their students during teaching process, while adapting their methods and modes of work to individual abilities of students. The goal of General high school education strategy (2015-2020) is to establish guidelines for improvement of high school education, as one of the most important segments of education, doing it on the basis of the analysis of existing situation and defined priority areas, goals and measures that need to be realized. Realization of this goal will contribute to the improvement of general high school education quality, to enabling acquisition of knowledge and skills, as well as to professional and personal development of every individual.

Vision of vocational education in Montenegro until 2020 means establishment of vocational education synchronized with labor

market demands, which enables lifelong learning and mobility, personal and professional development of youth and adults, with a more significant role of teachers, established quality system in which qualifications are based on competencies and learning results, participation in regional initiatives, and EU lifelong learning program.⁴¹ Drafting of Vocational Education Strategy (2015-2020) represents continuation of previous activities, defined by Vocational Education Development Strategy (2010-2014) and matching action plans, with the goal to improve initial and continuous vocational education that will allow every individual to acquire knowledge, skills and competencies, necessary for higher employability, professional and personal development and social inclusion. Strategic goal of vocational education development in Montenegro means making lifelong learning and mobility real, improving education quality and efficiency, promoting equality, social cohesion and active citizenry, improving creativity, innovations and entrepreneurship, for the well-being of individuals and society as a whole. The goal is to create quality, labor market relevant, vocational education system in Montenegro that will follow the needs of individuals and economy, and enable competitiveness and further development of a democratic and progressive society.

Higher education reform in Montenegro started by passing the new Law on higher education (2003), and continued by passing the statute of the University of Montenegro and bylaws, with which normative institutional framework for the implementation

⁴⁰ Ministry of Education, „General high school education development strategy in Montenegro (2015-2020)“, Government of Montenegro, Podgorica, June 2015.

⁴¹ Ministry of Education, „Vocational education development strategy in Montenegro (2015-2020)“, Government of Montenegro, Podgorica, December 2014.

of Bologna declaration principles has been created. With the introduction of Bologna principle in higher education system, University of Montenegro formally established unique organizational, legal and educational subjectivity. Necessary concentration in decision making at the level of University has been accomplished, while maintaining certain level of autonomy and independence of the units in activities from their area of competence and when cooperating with the surroundings. Law on higher education (2003) enabled the reform of higher education, primarily with the aim to increase studying efficiency and harmonize the system with European tendencies in higher education. In that period University of Montenegro was the only institution for higher education in Montenegro. At this moment, higher education is being realized at three universities (one public and two private) and ten independent faculties, out of which nine private and one public.

Higher education development and financing strategy 2011–2020 defined the mission of higher education and special measures and activities for its realization (procurement and improvement of higher education quality; connecting higher education and labor market and enhancing entrepreneurial-innovative character of education; share of population with higher education of 30–34 years of age with at least 40% in 2020; establishing lifelong learning model based on good international practice; research oriented higher education; internationalization of higher education). With the aim to better harmonize higher education with the needs of society and labor market, Study on labor market demands in the area of higher education (2014) was drafted whose results are used in further consideration of enrolment policy on higher education institutions in

Montenegro and in improvement of study programs. The Study emphasizes the significance of promoting the importance of practice and introducing practical classes, as binding part of study program, for professional development while allowing the students to acquire practical experience. Role of employers in this process is significant and they bear a share of responsibility that reflects itself in procuring conditions for performing practical classes. The importance of work on so-called soft skills (conscientiousness, sense of responsibility, openness to learning, communicativeness, team work) through additional training has been recognized.

Enrolment policy in Montenegro is characterized by the lack of quality cooperation between key actors, i.e. higher education institutions, ministries, Employment agency, employers and other relevant institutions.⁴² That was also recognized in strategic documents, where it has been assessed that existing cooperation is more formal-like, and not substantial.⁴³ It is crucial to introduce enrolment policy that dictates reduction of the number of students that are enrolling to study programs for which there is no interest from employers, respectively there is a distinct discrepancy between offer and demand on labor market, while in sectors of primary importance for development of Montenegro (agriculture, energy industry and tourism) it is necessary to establish

⁴² UNDP, „National Human Development Report 2016 – Informal work: from challenges to solutions“, UNDP office in Montenegro, Podgorica, 2016.

⁴³ Ministry of Labor and Social Welfare, „Employment policy reform program in Montenegro 2015–2020“, Government of Montenegro, Podgorica, 2015.

mechanisms for popularization of study programs in these sectors.

In that sense new Law on higher education was enacted (2014). Key innovations that were brought by the law, among other things, relate to procuring quality and improving standards and procedures that ensure continuous monitoring of the quality of work in institutions. The institution is obliged to at least once in five years perform labor market research by making opinion poll on graduated students, union of employers, economic subjects and entrepreneurs regarding applicability of acquired knowledge, skills and competencies that are needed at labor market and then to publish research results on their web site. Also, institution is obliged to ensure to students acquisition of practical knowledge, skills and competencies in laboratories of the very institution or by organizing traineeship with employers so they can with ease integrate themselves on labor market.

It is of crucial importance for the improvement of higher education system to work on overcoming four system weaknesses in the sector of higher education in Montenegro. First, there are too many small institutions. Second, too many institutions as their focus have training for business management. Third, as the biggest and oldest institution, University of Montenegro has the role of a leader and it is necessary to open itself to other institutions and cooperate with them in order to ensure high quality in entire sector. Fourth, it is necessary to have all institutions develop a higher level of strategic capacities so they could articulate and realize their goals in all areas that were mentioned. Through multiple set of reform measures, the government endeavors to contribute to procurement of higher level

of coherence between education and labor market demands. As part of one set of measures, Program of professional training for individuals with acquired higher education is being implemented, and is being realized fourth year in a row. In the following table we have data referring to the number of users of the Program and the number of positions for professional training advertised by employers.

For the purposes of additional improvement of the quality of higher education, as well as better harmonization of enrolment policy with labor market demands, Government Work Program for the second quarter of 2016 has planned drafting of Higher education development strategy for the period 2016–2020.

	2013.	2014.	2015.	2016.
Number of users	4.211	3.744	3.458	3.713
Number of advertised positions	5.317	5.800	6.930	9.014

University of Montenegro, up to now, did not manage to place itself on any of three most prestigious ranking lists of the best universities in the world. When placement on Shanghai list⁴⁴ of universities from the

44 Shanghai list (Academic Ranking of World Universities (ARWU) or abbreviated “Shanghai Ranking”) is an annual global ranking list of 500 best universities, which was originally compiled in 2003. Six factors influence the ranking of universities: 1) Alumni as Nobel laureates & Fields Medalists (10% of total ranking), 2) Staff as Nobel Laureates & Fields Medalists (20%), 3) Highly cited researchers in 21 broad subject categories (20%), 4) Papers published in Nature

surroundings is concerned, University of Belgrade is among 400 best world universities, while University of Ljubljana is among 500 best ones. On QS World University Rankings⁴⁵, University of Ljubljana is ranked between 551st and 600th position, while Universities of Belgrade and Zagreb beyond 700th position. According to Higher Education World University Rankings⁴⁶, the best ranked university from the surround-

ings is University of Maribor (between 501st and 600th position), while universities of Belgrade and Ljubljana are between 601st and 800th position.

On Webometrics Ranking of World Universities⁴⁷ all three Montenegrin universities can be found - University of Montenegro is far best ranked on 2.786th position, University Mediteran is on 11.740th position, and University Donja Gorica is on 17.000th position. However, when we compare these results with the surroundings, we can conclude that the position of leading Montenegrin university is far more worse than all other leading universities from the region - Ljubljana is on 216th position, Belgrade on 431st, Zagreb on 458th, Skopje on 1395th, and Sarajevo on 2.270th position. The only worse ranked is University of Tirana, as leading university in Albania, which took 6.184th position.

Leading principle of Adult education strategy in Montenegro is creation of the ambience for inclusion of citizens in the process of lifelong learning with the aim to develop competitive market economy, reduce unem-

and Science (20%), 5) Papers indexed in Science Citation Index-expanded and Social Science Citation Index (20%) and 6) Per capita academic performance of an institution (10%). (<http://www.shanghairanking.com/>)

45 QS World University Rankings is an annual ranking list of the best world universities that is being regularly published since 2004. Six factors influence the ranking of universities: 1) Academic peer review (40% of total ranking), 2) Faculty/Student ratio (20%), 3) Citations per faculty (20%), 4) Employer reputation (10%), 5) International student ratio (5%) and 6) International staff ratio (5%). (<http://www.topuniversities.com/qs-world-university-rankings>).

46 Times Higher Education World University Rankings is an annual global ranking list of 800 best universities, which was originally compiled in 2010. Thirteen factors influence the ranking of universities: 1) Research income from industry (per academic staff) (2,5% of total ranking), 2) Ratio of international to domestic staff (3%), 3) Ratio of international to domestic students (2%), 4) Reputational survey (teaching) (15%), 5) PhDs awards per academic (6%), 6) Undergrad. admitted per academic (4,5%), 7) Income per academic (2,25%), 8) PhDs/undergraduate degrees awarded (2,25%), 9) Reputational survey (research) (19,5%), 10) Research income (scaled) (5,25%), 11) Papers per research and academic staff (4,5%), 12) Public research income/total research income (0,75%) and 13) Citation impact (normalized average citation per paper) (32,5%). (<https://www.timeshighereducation.com/world-university-rankings>).

47 Webometrics Ranking of World Universities (also known as Ranking Web of Universities) is a global system for university ranking that used four factors: 1) visibility, 2) activity, 3) openness and 4) excellence. Visibility is measured by the quantity of external links that lead to web domain of the institution, while activity means presence on the internet, and is measured by the quantity of pages on the web site. Openness implies number of published and available documents, and excellence refers to the number of published scientific works in international magazines. First such ranking was done in 2004. The list has more than 12.000 universities, and it is updated twice a year - in January and in July. (<http://www.webometrics.info/en>).

ployment and social exemption.⁴⁸ Orientation towards lifelong learning should enable creation of conditions for mobility and competitiveness within the process of European integrations. Adult education strategy for Montenegro elaborates principles that were prescribed by the Law on adult education, adopted in 2011. With this Strategy, the state encourages adult education with the purpose to improve human resources that will strongly contribute to economy development, unemployment reduction, civil society development and life quality improvement. Strategy gives guidelines that Montenegro will follow in the coming decade so it can reach quality adult education. In order to achieve Strategy goals, priorities are defined, based on strategic development directions of overall education system of Montenegro:

- Increase social inclusion of adult citizens through activities of lifelong learning and education;
- Improve knowledge, skills and competencies of adults in respect to employability, mobility on labor market and competitiveness;
- Increase competencies of employees with the aim to achieve faster economic growth;
- Establish quality procurement system for adult education;
- Procure flexible and sustainable adult education system.

In light of achieving these goals, it is necessary to also take into consideration non-formal education, especially of youth, that is

acquired outside institutions, such as programs realized by non-governmental organizations and business sector, programs for non-formal education for youth abroad and similar. It is important to increase coverage, diversity and quality of programs for non-formal education for all age groups, especially youth. At the moment, offer is not regionally harmonized (in respect to Podgorica, far less programs for youth are organized in northern municipalities of Montenegro), while standards and quality control for trainings, seminars, workshops and programs offered by NGO and business sector are inexistent (this does not refer to adult non-formal education programs, which are regulated by law). Also, it is necessary to recognize so-called “soft” skills and experiences of youth acquired through non-formal education programs organized by different education providers in the country and abroad. European commission published guidelines for recognition and approval of non-formal and informal education, offered by different program providers, among others civil sector also.⁴⁹

More than 8.000 people in Montenegro, i.e. 1,3% of population has actively participated in national post-millennium consultations regarding development goals for the period after 2015, which are part of the global campaign introduced with the support of the United Nations in over 80 countries worldwide.⁵⁰ Education is recognized as one

⁴⁸ Ministry of Education, Adult Education Strategy for the period 2015 – 2025, Government of Montenegro, Podgorica, 2014.

⁴⁹ The European Centre for the Development of Vocational Training (Cedefop) – European guidelines for validating non-formal and informal learning. (<http://www.cedefop.europa.eu/en/publications-and-resources/publications/3073>).

⁵⁰ Komar, Olivera and Gegaj, Pavle. „Montenegro I want – National consultation report in Montenegro on post-millennium development

of key resources of the future, respectively the basis for creation of knowledge based society. Education reforms should contribute to the improvement of education quality, acquired knowledge applicability, social and practical skills and abilities strengthening, critical opinion forming and better harmonization with labor market. In order to come up with the realization of which topic is the most important in education and how different issues are ranked within this topic, examinees were asked to rank six topics by specifying which topic, in their opinion, is on first position, and which on second as per their significance. Primary education is specified as one of two most common answers. Second place belongs to pre-primary education, then harmonization of education with labor market demands, thereafter university education quality and high school education. Two thirds of examinees believes that life quality in Montenegro directly depends on education quality, while more than a half of examinees believes that it is realistic to expect that education becomes the priority. At the same time, education quality in Montenegro was evaluated by examinees as bad, and almost by one quarter as extremely bad, while 40% of examinees believed that our education is not competitive in respect to education in the region.

Analysis of the existing situation in education system indicated the need to undertake additional activities directed towards the increase of the number of children covered by pre-primary, primary and high school education and upbringing, as well as better equipped schools, work program and textbook quality improvement, teaching organization, staff and professional specialization.

goals“, Podgorica, April 2013.

2.2. State of social resources

2.2.1. About social capital

Moral norms and values, trust-based relations among individuals, as well as organizations; institutions, cultural heritage and cultural activities, they all make one state's social capital. World Bank defines social capital as institutions, relations and norms that shape the quality and quantity of interactions in one society⁵¹. Organization for Economic Cooperation and Development (OECD) on the other hand defines it as relations, common values and understanding within society, which enable individuals and groups to believe in each other and work together. Social capital has immediate effect on productivity, wellbeing and happiness of one society because connection among its members leads to trust, cooperation and reciprocity while relating.

On the basis of the assumption that one community's progress will depend almost exclusively on the development of individuals, for a long time the approach to human development was individualistic. However, only recently the insufficiency of this approach has been proven and confirmed. There are evidences about how investing in physical infrastructure is not sufficient, whereas it should be invested in good interpersonal relations, health or education, in order to achieve sustainable human development. Communities in which institutions promote

⁵¹ Grootaert & Bastelaer, "Understanding and measuring social capital: a synthesis of findings and recommendations from the social capital initiative", World Bank, 2001., p. 4.

social cohesion show low level of disparity among singular groups such as ethnic, religious or generic, thus according to that high level of interaction and trust among people⁵². All these points together lead to the development of more solid, happy and sustainable society.

Social capital as an important *resource* of one state is the result of its overall historical development, therefore its quality is mainly determined by relations between an individual and an organization in respect to key achievements in their development, formed value system and rich material and non-material cultural heritage. Nevertheless, it was evidenced that it was possible to speed up certain processes and stimulate more solid relations among members of the society.

Even though there are numerous and rather varied literature about social capital, it is possible to find certain standards on the basis of which to make this capital operational and measureable. That way, for example, its four basic dimensions are recognized⁵³, *i.e. values, trust in institutions/rule of law, good governance, local institutions and networks*. These dimensions are possible to be measured in different manners, but the most frequently used one is membership in *local associations and networks, level of trust in institutions and legitimacy of norms, thus collective action*.

Through further elaboration of this approach in the context of condition in which

Montenegro is when social capital is concerned, whereas having in mind sustainable development goals, the following dimensions were developed in this strategy, respectively priority action areas:

- Attitude of key actors towards sustainability of development
- Value system
- Trust in institutions and rule of law
- Organizational culture
- Employability and social inclusion
- Regional development
- Cultural development and integrated protection and cultural heritage and landscape management.

2.2.2. Attitude of key actors towards development sustainability

In order to strengthen social capital, adequate attitude of key social actors is essential and will be directed towards construction of solid sustainable development. From the aspect of sustainable development, more important social actors are public administration institutions (educative ones also), civil society (and within it especially non-governmental organization and informal groups of citizens), business community and family. Depending on the way in which these actors will organize social life, the level of sustainability of one society will be defined. All these actors have a responsibility significant for the process of citizen socialization in accordance with global goals of sustainable development accepted by Montenegro. Educational institutions that don't "produce" a citizen capable and ready to involve him/herself into solving social problems, based on sustainable de-

⁵² UNDP, Human Development Report, 2013, p. 36.

⁵³ Grootaert & Bastelaer, "Understanding and measuring social capital: a synthesis of findings and recommendations from the social capital initiative", World Bank, 2001, p. 20.

development principles, cannot respond to the needs of development in 21st century where education is no longer seen exclusively as *transfer of knowledge* but also as *transfer of values*. The same goes for organizations of civil society that need to be prepared to actively participate in articulation of political interests of the citizens, but also their mobilization in accordance with sustainable development goals. Discrimination at any level (gender, national, religious, sexual identity or some other personal or group feature) ruins cohesion of a society and creates interior conflicts that disable every individual within the society to achieve under certain circumstances his/her full potential and in that way instigate sustainable development of the community. In the end, it's the family that suffered numerous blows during transition period, from the transformation in terms of norms and values, reflected in changing from traditional family ways to accepting alternative forms of conjugal living, to economic pressures that redefined gender roles, but also created certain tension that caused higher level of violent behavior and destruction of the family itself as the cell of the society. Sustainable development should be an opportunity to reconstruct policies that will enforce individuals in all their diversity (in relation to gender, nationality or religion, sexual orientation, age, etc.) and make them factor of change and equal partners in the effort to "promote inclusive, rightful and sustainable development of the society"⁵⁴. In accordance with the principle of *partnership* defined as one of five basic ones and in respect to which accomplishment of sustainable development goals will be defined, all these actors should be dedicated partners for sustainable development of the society.

2.2.3. Value system

Modern world is characterized by plurality of value systems. Values on the other hand cannot be recommended or prescribed. Each society builds its own system on which it lays the basis of its own identity. However, certain general negative tendencies can be noticed, such as lack of critical opinion and lack of interest for collective issues and social problems. Societies are being atomized, and individuals are more and more often being left on their own. Insisting on professionalization brings us to a situation where society is made of a group of unconnected individuals that operate without a common goal and very often with mutually conflicted roles.

Montenegro is in a situation where it constituted itself as political community on the basis of traditional principle that is vanishing, whereas no values were created that would enjoy social consensus, and that would be harmonized with technical-technological progress of the society and new knowledge⁵⁵. Additionally, "models" don't exist and it is essential for the society to create its own value system around which to base substantial and procedural consensus.

Even though from the very beginning it was being built as a multi-ethnic and civil community, there is still space for consolidation of Montenegrin civil identity that will connect all constitutive unities by managing and respecting their diversities with tolerance. The concept of *universal citizenship* "as an identity different from singular identities within a community, and naturally, uncate-

⁵⁴ UNDP, Gender Equality Strategy 2014-2017, p. 9

⁵⁵ MASA, „Montenegro in 21st century - in the era of competitiveness, Part „Values“, 2010, p. 184.

gorical in respect to other identities” (Spaić, 2010, p. 48) needs to be the guiding principle in this process. Those aspects of civil identity that support sustainable development, such as responsibility, activism and consciousness in relation to general wellbeing need to be particularly developed.

2.2.4. Trust in institutions and rule of law

Even though Montenegrin public institutions enjoy a rather high level of trust, it is in great measure determined by identity divisions. Also, Montenegrin legal order being normatively based on values of civil democracy, social justice, environmental protection and rule of law, did not substantially become constitutive element in creation of neither state nor society. Some values declared by the Constitution did not become the object of general acceptance by all political subjects in Montenegro.

Good governance, efficient fight against corruption and organized crime remain challenges despite the efforts invested in previous period. In conditions of accelerated change of legal framework and harmonization with *Acquis Communautaire*, which itself carries a series of sensitive transformations, insufficient trust in institutions and rule of law functioning, makes social cohesion impossible, and it is essential for the system sustainability. Perception that government apparatus is influenced by political parties additionally complicates creation of social consensus when it comes to strategic development directions. It can be concluded from the above that strengthening of institutions and consequently building trust in them should be one of principal strategic goals of sustainable development.

2.2.5. Organizational culture

Organizational culture phenomenon is one of key factors of understanding how organizations function. This concept, which marked last decades of organizational theory, explains internal life of an organization based on value system and behavior norms of its members. Organizational culture represents a set of common opinions, values, beliefs, norms, expectations and customs that are shaping behavior of organization members, and above all a way in which they start their mutual interaction, how they treat buyers, how they perform their tasks and what results they achieve. Organizational culture is influenced by: national culture, nature of activities, members of the organization and working group within the organization. Cognitive structures of organization members are dominantly formed under the influence of national culture. According to that, national culture is an important determinant of socio-economic development of a society.

Examinations of national cultures in South-eastern Europe demonstrate that national cultures in our area have the following characteristics:⁵⁶

- **High power distance** - There is a high need for chief authority, to which the responsibility of decision making is given. This dimension prefers centralized, not democratic decision making;
- **Uncertainty avoidance** - People are not inclined to taking risks, so they

⁵⁶ Ivanović, Predrag, Nevenka Glišević, Vladimir Vulić and Srđan Vukčević. “Structural changes in economic development of Montenegro”, scientific-research project for the Ministry of education and science of Montenegro, 2010.

leave decision making to others and look for as little uncertainties as possible. This dimension stimulates bureaucracy behavior;

- **Collectivism** – Connected with previous point, they prefer solid social structures that mean less risk, and more protection;
- **Dominance of “female values”** – Protection from chief authority is required, and in return loyalty is given.

National culture with previously stated characteristics is different from Anglo-Saxon cultures. It is similar to German culture in domain of avoiding uncertainties, to some Roman cultures in the part regarding power distance and uncertainty avoidance, afterwards to Scandinavian cultures in the dimension of “female” values. Circumstances of century-long socio-economic underdevelopment strongly shaped stated dimensions of cultural matrix in the area of Montenegro. Briefly, historical framework of shaping cognitive structures in the area of Montenegro is as follows:⁵⁷

- **Historical geo-strategic position of the “contact” of civilizations at Balkan**, causes constant and heavy blows from powerful enemies that suppress local population to economically passive areas with very scarce resources;
- **Needs for protection and survival constitute a wide family, fraternity and tribe as basic forms of social organization**;
- **In families “patter familias” is dominant, who appoints tasks to mem-**

bers (high power distance), and shares scarce material goods in equal parts to all members (equality, solicitude – “female values”);

- **Gender roles in work are not strictly divided (collectivism, “female value”).**

Historically shaped national culture, with stated values, was extremely eligible for the acceptance of communist paradigm and value system in Montenegro. According to that communist paradigm and especially the doctrine of “self-governing socialism” “conserved” attributes of national culture that are relevant for the development of democratic system and market economy. Namely, while comparing us to other countries in transition from Central and Eastern Europe, it is clear that stated culture or cognitive matrix system was the main reason for slow democratization and especially slow, inefficient and expensive economy transformation.

Since transformation in Montenegro started in the last decade of the 20th century and is still not entirely completed, it is clear that transformation as concept and need for its own dimensions “collided” with non-complementary cognitive structures.

Deep structural disproportions are a result of socio-economic development incurred so far. Namely, Montenegro, as we saw, was affected by capital-relation-based development pretty late. Accordingly, internal market and its legality were established late, therefore initial forms of a modern state. General delay in the development of capital-relation and market, within the context of, historically speaking, very tumultuous 20th century and complex geo-strategic position of the Balkans resulted in discontinuous and contradictory political and economic trends, which reflected it-

57 Ibidem.

self to national cultural matrix characteristics. So-called cognitive matrixes are an important determinant of socio-economic development, which is clearly indicated by the examples of socio-economic successes of some countries with very scarce natural potentials (Finland, Ireland, Island, Japan, etc.). Analysis of national cultural matrix demonstrated the dominance of the concept of collectivism and collective responsibility. Accordingly, so-called budgetary mentality represents a significant limitation to perspective development, thus people believe more in the power of the state than in the power of entrepreneurship and individual responsibility. For illustrational purposes only, people in Montenegro would rather work in a government apparatus, with not so high and secure income, than in private sector, which is also characteristic for population of underdeveloped areas in other states. Development generators are people, their creativity and entrepreneurial spirit, as well as individual responsibility and professionalism. "Budgetary" culture matrix is by default sterile, i.e. not propulsive for innovations, entrepreneurship and development of professionalism. Therefore, it is limiting those dimensions that are considered development generators in actual global world, which is more and more becoming the world of organizations and individuals, and not of collectivity and states.

State of "cognitive matrix" results in not only insufficient "charge" of entrepreneurship and entrepreneurial ideas but also in low level of professionalism of managerial structures and those engaged in operative activities. Montenegro is characterized by the deficit of quality managers and underdeveloped corporate management culture, which is negatively reflected on efficiency of economic and other subjects. Therefore,

significant development limitation is the condition of managerial and technological "know-how" approach.

2.2.6. Employability and social cohesion

Employment issue was in great measure actualized in the period when consequences of world financial crisis could have been felt. Liquidity reduction of economy and overall economic activity brought to the fall of GDP and of the majority of other economic indicators, which reflected itself to employment conditions. According to data procured by Employment Bureau, until 2009 unemployment in Montenegro got reduced, after which that trend changed⁵⁸. Analysis of employment indicated that, as in many other countries in transition, employment per sectors in Montenegro is dynamically changed. Namely, it shows increasing trend in the sector of services, and decreasing trend in the sector of industry. Regional differences are harsh (employment rate in northern region is around 10% lower than the average), unfavorable in terms of age structure (for example, only 13,7% of the youth from 15 to 24 years of age have a job), gender structure (58% of employed men in respect to 42% of employed women) and education (50,6% of employed have high school education, and 18% higher, where employment rate is the highest 71,7%). Additionally, Montenegrin tourist economy relies to a great extent on employing foreigners during tourist season.

Informal work represents a particular problem. Even though it is a phenomenon char-

⁵⁸ Ministry of Labor and Social Welfare, National strategy for employment and human resource development, Government of Montenegro, 2012.

acteristic for all states regardless of their level of economic development, its damaging consequences in the context of Montenegrin economy are particularly far-reaching. According to National Human Development Report prepared by UNDP⁵⁹ every third person in Montenegro is at least in one part informally engaged. Namely, in 2014 in Montenegro “one fifth (22,3%) of the total number of employed was informally employed, while for one sixth (10,4%) of formally employed people, only part of pertaining taxes and contributions were paid (part of the income is “being paid directly”)”⁶⁰. Consequences to the increase of inequality and poverty are numerous: those are mainly positions where employees are not adequately paid and very often they don’t work in safe or dignified conditions, they don’t have adequate health care and social assistance, which takes them to being at higher risk of social exclusion and marginalization. According to already quoted UNDP Report, informal employment rate is the highest among the youth from 15 to 24 years of age (34%) and among the oldest of over 65 years of age (73%). Percentage of formally employed correlates with the level of education, therefore it’s the highest among the least educated.

Due to all stated, one of priorities of Montenegro should be reduction of informal economy volume through construction of institutional framework that will procure motivation for introduction of informal employment into legal channels.

Even with reduced poverty rate and inequalities in allocation of income in 2013, when compared to previous ones, general situation can be defined as worrying. There has been certain improvement, but **poverty** in Montenegro is still a problem. Percentage of population living under poverty level got reduced for more than 30%, from 11,2% in 2005 to 8,6% in 2013⁶¹, however sharpness and depth of poverty are still very high which indicates that society should procure means in the amount of 2,4% of poverty level per capita, and then allocate those means to the poor in the amount that would enable their overall consumption to reach poverty level. As far as **inequality** intensity is concerned, Gini coefficient indicates reduction of inequalities in Montenegro in 2013. Coefficient was reduced from 26,5% to 26,2%, which interrupted growing inequality trend present in previous period. When living area is taken into account, Gini coefficient in **urban** areas records higher values in respect to **rural** areas, where inequalities regarding allocation of income is lower. As in previous year, in 2013, 20% of the richest people had consumption rate 4,3 times higher than the one belonging to 20% of the poorest people. Even with significant progress in respect to reduction of poverty in rural areas, where poverty rate in 2013 was almost two times lower in respect to 2012 (9,7% in respect to 18,1% of poverty rate in 2012), relative risk of poverty is still rather higher in rural than in urban areas (1,13 in respect to 0,92⁶²). In

59 UNDP, „National Human Development Report 2016 - Informal work: from challenges to solutions“, UNDP office in Montenegro, Podgorica, 2016.

60 Ibidem, p. 8.

61 Statistical Office MONSTAT, „Fourth annual report on achievement of the Millennium sustainable development goals ME for period 2014, Poverty analysis for Montenegro for 2013“, MONSTAT, 2014.

62 Relative poverty risk as per any category represents relation of poverty rate of that category (in this case poverty rate in rural and

reference to initial year, poverty rate in rural areas, only in 2008 and 2013, registered one-digit values. Also, positive movement was registered with reduction of **regional differences**. Poverty rate in northern region in 2013 was at the same level as poverty rate in central region (10,3%), while at the same time in central region the number of the poor grew, so percentage of the poor in 2013 was at the level of 58,1%⁶³. Unemployment rate was still very high and in 2014 it was 18%⁶⁴. Even though in 2014 there was economic recovery of domestic economy, labor market as in a couple of previous years was still characterized by problems already existing at markets in the region and wider, among which the most distinguished one was unemployment of the youth and high long-term unemployment.

2.2.7. *Balanced regional development*

Measured by GDP as per purchasing power parity⁶⁵, Montenegro is under European average of development being that its GDP is only 41% of EU28 average. Key reason of such situation is uneven regional development in Montenegro, which reflects itself in distinguished disparities of its three

geographical regions: northern, central and coastal⁶⁶. When development is concerned, northern region is particularly behind, being that available development resources of the region in previous couple of decades were not adequately valorized. In the long run, reduced economic activity reflected itself on unemployment growth and population outflow, which also influenced average age growth of the people in this region with which reproductive ability of the region itself significantly got reduced. Even though it constitutes 52,8% of Montenegrin territory, northern region is populated by only 28% of its population and it is at 50,1% of development average of Montenegro⁶⁷. On the other hand, this region at the same time disposes of the greatest part of natural resources of Montenegro whose efficient valorization should contribute to further development of Montenegro and to its getting closer to EU development average. Seeing the hard financial situation, the level of acceptable solutions and modes in which natural resources are used was degraded as the resources are being exploited in an unsus-

urban areas) with the poverty rate at ME level in subject year, which in this case it would be 2013. (Statistical Office MONSTAT, "Fourth Annual Millennium Development Goals Report ME for 2014, Poverty analysis for Montenegro for 2013", MONSTAT, 2014).

63 Ibidem.

64 Ibidem.

65 Data relate to 2012. Montenegro as a country of 620.029 inhabitants is consistent with EC Regulations 1059/2003, defined as one of NUTS regions at all three levels (NUTS 1=NUTS 2=NUTS 3), out of totally 272 NUTS II regions within EU-28.

66 According to the Law on territorial organization of Montenegro ("Off. Gaz. ME no. 54/11, 27/13; 62/13 and 12/14), Montenegro is divided in 23 local self-governance units, i.e.:
- coastal region: Bar, Budva, Herceg-Novi, Kotor, Tivat and Ulcinj;
- central region: Capital city Podgorica, historical capital Cetinje and municipalities of Danilovgrad and Nikšić;
- northern region: Andrijevica, Berane, Bijelo Polje, Gusinje, Kolašin, Mojkovac, Petnjica, Plav, Pljevlja, Plužine, Rožaje, Šavnik and Žabljak.

67 Development level of coastal region was 62% over average, while development level of central region was 23% over development average of Montenegro in the period 2010-2012 (Regional Development Strategy of Montenegro 2014-2020, p. 15).

tainable manner. Due to inadequate coordination mechanisms of national and local level, then lack of administrative, technical and financial means for adequate controls and monitoring, inhabitants of other regions, as well as investors and businessmen also became those who are using natural resources of northern Montenegro.

In previous period, regional development policy was dominantly directed towards giving contribution to balanced regional development through investments into infrastructure, whereas far less into strengthening human resources, competitiveness and innovation. Policy effects demonstrate that significant investments in previous period were directed towards the development of northern region, however, it was exactly the structure of those investments that did not lead to employment growth and larger number of small and medium enterprises (SME) in this area. On the contrary, internal migrations, as well as population outflow in countries that have Montenegrin Diaspora continued.

According to the Law on Regional Development, local self-government units with development index that is under 75% of the average of Montenegro are considered to be less developed. On the basis of data from the Ministry of Economy, for the period 2010–2012, the greatest number of less developed local self-government units in Montenegro was located in northern region (10 out of totally 11 municipalities)⁶⁸. When observed at the level of regions, in the period 2010–2012, northern region was at the level of 50,1%

in respect to Montenegrin average, central region was 123,5% over national average, while coastal region in that same period was the most developed one, and had 162% over development average of Montenegro.

Aside from development index, Law on Regional Development also defined monitoring of the level of competitiveness, being it the best indicator of one area's potential. According to this indicator, for the period 2010–2014, competitiveness of northern region, on the basis of received data, makes 73% of national average, central region is the second region in Montenegro as per the level of competitiveness, i.e. it is 107% over national average, while coastal region is the most competitive one, with competitiveness 143% over Montenegrin average.

By comparing data regarding the level of development and the level of competitiveness, we can conclude that mainly the most developed areas are at the same time those with the highest level of competitiveness. However, competitiveness index gives somewhat more favorable image, which indicates the existence of significant resources and potentials that are still not used to sufficient extent or in an adequate manner, which should bring to reduction of disparities between regions or self-government units within the region.

From the aspect of regional development⁶⁹, the goal is to achieve balanced socio-economic development of all local self-government and regional units, based on competitiveness, innovation and employment, where it is clear that parallel to investing into basic

⁶⁸ Municipal development measurement for the period 2010–2012 does not include municipalities of Petnjica and Gusinje, since at that time they were not constituted.

⁶⁹ Ministry of Economy, Regional Development Strategy 2014–2020, Government of Montenegro, June 2014.

infrastructure, it is necessary to realize a set of measures that will relate to increasing the level of competitiveness of less developed region, as well as to strengthening human resources and employment. In that sense, in order to reduce regional differences in Montenegro, in the period until the end of 2020, the following has been planned:

- Improving coordination system in realization of regional development and strengthening international cooperation since important for realization of development projects at regional level, and especially in the north;
- Improving monitoring system for realization of Regional Development Strategy, as well as drafting statistical indicators at regional level, especially GDP;
- Realizing key capital projects out of which construction of highway Bar-Boljare is the most important one, and parallel to it, further improvement of business ambience, consideration of introducing fiscal exemptions and developing incentive systems in northern region in order to increase investments into this region through application of incentive policy that has been defined by the Decree on fostering direct investments⁷⁰ (especially in the area of tourism, agriculture, energy and wood industry). All this with the aim to increase added values in production and to open new jobs, bearing in mind that unemployment is one of key elements of lower level of development in the north;

- Improving other elements of competitiveness and region development, especially the northern one, primarily in the area of education pursuant to labor market needs, strengthening of cooperation between public and private sector, as well as in the area of giving support to the development of SME in agriculture, tourism, wood and energy industry (such as SME networking into clusters, support to the introduction of international business standards, increase of added values in production, promotion of export, etc);
- Strengthening absorptive capacities of local self-government units, central government, as well as economy, in order to use as high percentage as possible of means from EU funds for realization of development projects⁷¹.

Aside from competitiveness and innovations, industry, tourism and culture, education, employment and social policy, traffic infrastructure, energy industry and agriculture and rural development, one of priority areas regards environmental protection. The focus is on “promotion of sustainable development based on protection of nature, minimal air pollution, water quality protection and efficient solid waste and sewage management, noise protection in living areas, safe chemical management and industrial pollution control”⁷².

⁷¹ Extract from Regional Development Strategy of Montenegro 2014–2020, pp. 3–4. RDS

is entirely harmonized with Development trends of Montenegro 2013–2016, Strategy Europe 2020 and Strategy SEE 2020, and in that sense complementary with the NSSD.

⁷² Ministry of Economy, Regional Development Strategy of Montenegro 2014–2020, Government of Montenegro, June 2014, p. 42.

⁷⁰ Decree on fostering direct investments, “Off. Gazette of Montenegro”, number 80/15;

With regard to availability of natural resources in northern region, it can be expected that the load of anthropogenic impact will grow in this region. For that reason, it is important to summarize lessons learned and consistently implement valid legal norms, in order to avoid space devastation, unsustainable resource management and ensure resource efficiency in economic segments that will be developed in this area.

With regard to number of inhabitants, whereas pursuant to Regulation (EC) 1059/2003, Montenegro is defined as one of NUTS regions at all three levels (NUTS 1=NUTS 2=NUTS 3), out of totally 272 regions at NUTS II level within EU-28. As one of statistical regions, Montenegro reaches 41% of EU-28 development average, calculated as per GNP PPS for the year 2012, i.e. it is under EU development average. One of key reasons of low development level in Montenegro in respect to the EU is inadequate valorization of available resources, especially in northern part of the country.

Even though in the eyes of the European Union Montenegro is one statistical region, it does not mean that it should give up on internal policy regarding regional development. On the contrary, clear processes, mechanisms and measures need to be defined, aimed at making local level needs recognized among priorities at national level, thus included into financing processes from available national and EU funds.

2.2.8. Cultural development

Cultural policy goal of Montenegro is to develop and improve contemporary cultural-artistic creativity, cultural activity and cultural life in general, valorize rich cultural heritage, contribute to intercultural dialog

and preservation of peculiarities of different cultural identities, help affirmation of Montenegrin identity as a state, improve cultural relations with other countries. In accordance with European experience where culture is recognized as *“operative support to wide range of public goals”*, Montenegrin contemporary artistic and creative scene and Montenegrin cultural heritage, accompanied by adequate institutional infrastructure, could be a strong incentive to general social development.

Culture development is a continuous commitment, and in forthcoming period it is defined by the new Cultural Development Program 2016–2020. Current situation in the culture is characterized by: improved legal framework; implemented institutional reform of public cultural institutions and introduced new standards of protection and preservation of cultural heritage, new models of management and administration of public cultural institutions; in order to have balanced cultural development in Montenegro, efforts were continuously invested through public tenders, as well as through special support programs – “Cultural development in the north” and “Cultural development support program in Nikšić”, then through the project “Cetinje – the city of culture 2010–2015” and “Cultural heritage protection and preservation program” that is being implemented since 2012. Strategic and project planning model has been established by adopting development strategies, through evaluation and analysis of situation in certain cultural areas, realization of cataloguing of non-material cultural heritage and implementation of integrated cultural heritage management. Intense cooperation and communication have been established in the area of international presentation of Montenegrin culture that resulted in concluded bilateral agreements and coopera-

tion programs, participation of Montenegrin artists at referential global manifestations. Montenegro became member of numerous international associations and organizations, participated in significant regional cooperation programs, and since 2014, became member of the new generation of the most significant program – “Europe for citizens” and “Creative Europe”. Also, efforts were invested in the improvement of social status both of renowned Montenegrin artists through support programs, and of young and talented artists through specialization programs at referential international art institutes. Inclusion of persons with disabilities in all aspects of culture, as well as increase of accessibility to cultural offer, is a permanent commitment and it is necessary to continue with the activities regarding improvement of cultural offer availability for persons with disability. Aside from stated positive trends, there are also some lacks in the current situation of the culture that need to be pointed out. Conditions for performing activities in culture in terms of the condition of facilities, as well as investments in program activities were not at necessary level. Even though, in the last period, there have been some activities in respect to additional education and education of specialized staff, lack of skilled staff and lack of application of innovative knowledge can still be noticed. Taking into consideration results of projects realized so far and taking into account the significance of balanced regional investment and presence of cultural offer, it can be concluded that there is still the problem of spatial, respectively regional distribution of cultural offer.

Position of artists and other culture creators is not at satisfactory level. Aside from certain level of support, there are numerous forms of cultural activities empowerment that are

still missing, for example through cession of working space, additional promotion of their work in the country and abroad or repurchase of their works of art. Even though significant seasonal manifestations are being organized, such as *Kotor Art* or *Sea Dance* festival, realized with the support of public authorities at state and local level, it is also necessary to develop a network of smaller events whose primary purpose is not to add to tourist offer, but should be dedicated to local population outside main tourist season and thus also affirm informal and alternative scene. Creation of favorable ambience for alternative sources of culture financing is essential.

Position of informal culture actors is not at satisfactory level, even though we are talking about actors who are recognized in the region and wider as bearers of contemporary trends, innovations, creativity and openness that one culture needs to have within itself. Available data indicate that there is a reduction trend when number of theatre plays and visitors are concerned. Available data of the Statistical Office of Montenegro – MONSTAT confirm this reduction trend when number of theatre plays and visitors to amateur theatres are concerned.

Institutions in charge for culture, especially at local level, are not sufficiently developed, particularly not for strategic planning in the area of culture. They dispose of insufficient capacities in respect to capacities needed at the level of local cultural policies bearers, as well as in respect to creation of relations among modern trends in the area of culture and local community. Also, it is necessary to significantly strengthen or establish inter-sectoral cooperation at all levels.

Condition of cultural facilities is not at satisfactory level. Numerous facilities are in bad

physical condition, with dated equipment and installations, insufficiently adapted to the needs of modern cultural offer or for safe keeping of valuable archival and museum materials.

Culture must be based on principles of open society, tolerance, innovation, progressiveness and multiculturalism. Even though there are positive movements when visibility and quantity of cultural activities performed by marginalized, i.e. vulnerable groups are concerned, that type of subculture is still insufficiently developed and does not represent any significant element whatsoever of contemporary cultural offer in Montenegro.

2.2.9. Integrated cultural heritage and landscape protection and management

Montenegro is characterized by exceptional cultural heritage and landscape diversity. From the aspect of territory, relatively small cultural area of Montenegro was formed through history under the influence of different civilizations and cultures. Diversity of immobile cultural properties, as well as richness of museum, archive and library resources, represent the proof of specific cultural milieu of Montenegro.

With its wealth, diversity, historical presence and preservation, mobile and immobile cultural heritage, as well as non-material cultural heritage (way of living, customs, beliefs, attitude towards the world, nature, spiritual values, etc.) on the territory of Montenegro they are just insufficiently used development potentials. To certain extent, cultural heritage is still seen as burden and expenditure for the budget, whereas complete understanding of the significance of its role in modern society and possibilities of its adequate valorization is lacking. Such

approach, unfortunately, is reflected on all elements of cultural properties protection and management system.

Prior to legislative and institutional reform, insufficient number of employees in institutions for cultural heritage protection was evident. That number was 94⁷³ in 2010⁷⁴, and it was estimated that in newly formed institutions it was necessary to have 188 employees – in Direction for the Protection of Cultural Properties 90, and in Center for Conservation and Archaeology of Montenegro 98 employees, by procuring 114 employees in the first phase of reform implementation. What is significant is that for the purposes of sustainable use of cultural property within legislative and institutional reform from 2010, Ministry of Culture set norms regarding: protection of non-material cultural heritage and cultural landscape, integrated protection as a form of protection of cultural properties in spatial plans and other contemporary protection mechanisms. Cultural properties⁷⁵ as valorized part of cultural heritage of general interest are protected in accordance with national law and international regulations. Since 1961 Montenegro has a Register of cultural properties which until 2015 had

73 In the Republic Institute n for the Protection of Cultural Properties in Cetinje (58 employees), Regional Institute in Kotor (21) and Center for Archeological Research (15).

74 In accordance with the Law on Protection of Cultural Heritage from 2010, then on the basis of the Elaborate on Justifiability of Transformation of Cultural Heritage Institutions

75 In accordance with the Law on Protection of Cultural Heritage (2010) “Cultural property is every immobile, mobile and non-material property for which it has been established to be of permanent historical, artistic, scientific, archeological, architectonic, anthropologic, technologic or other social significance”

registered 1.900 pieces of cultural properties ⁷⁶ after the process of revalorization of cultural properties of Montenegro has been implemented in accordance with the Law on Protection of Cultural Heritage⁷⁷.

2.3. State of natural resources

Diversity and uniqueness of natural resources of Montenegro require taking some resolute measures so it could preserve that exceptional potential in accordance with constitutional decision of Montenegro to be an ecological state, as well as with the vision, principles, strategic goals and sustainable development measures established by the NSSD from 2007, as well as with decision expressed at the United Nations Conference on Sustainable Development 2012 (Rio+20)⁷⁸.

Based on constitutional determination, political will to direct socio-economic development of Montenegro towards establishment of an ecological state in accordance with the principles of sustainable development is confirmed in many ways. As an expression of political will, national policy on sustainable development was established through implementation of the NSSD and actions of National Council for Sustainable Development, Climate Changes and Integrated Coastal Zone Management. Also, a set of steps was taken in order to fulfill such political vision that corresponds to high level of awareness regarding more distinguished need to protect natural resources and to reduce the dynamics of their exploitation in respect to the dynamics of economic growth of the country, thus to support growth of

⁷⁶ Registered in accordance with the Law on protection of cultural heritage (Official Gazette ME, no. 49/10 and 41/11) and Rulebook on Register of cultural properties (Off. Gazette ME no. 19/11.)

⁷⁷ Government of Montenegro adopted Project implementation report – Revalorization of cultural properties of Montenegro with which 1.900 cultural properties are covered (mobile and immobile)

⁷⁸ Ministry of Sustainable Development and Tourism, Analytic document „Greening of Montenegrin economy“ – Platform for participation at the Summit Rio+20, Government of Montenegro, June 2012

the quality of life of its citizens. Decision regarding ecological state also requires inter-generational equality transformed in the commitment not to abridge to coming generations the right to dispose of equal level of environmental quality and resources that we nowadays have.

In conclusions of the National consultation report on post-millennium development goals “Montenegro I want”⁷⁹, environment is identified as one of the biggest advantages and potentials of the country. However, it has been noted that environmental potentials are not only insufficiently used, but their qualitative features are getting rapidly degraded.

2.3.1. Biodiversity

Diversity of geologic base, landscape, climate and soil, as well as geographic position of Montenegro at Balkan Peninsula and the Adriatic, brought to the **richness of biodiversity**. As per flora and fauna richness and ecosystem diversity, Montenegro belongs to leading countries in Europe.⁸⁰ Approximately 20% of entire flora are endemic and sub-endemic plants. Due to their rarity and vulnerability, 410 flora and 428 fauna species have been protected. Ecosystem diversity is reflected in the presence of different types of ecosystems, i.e.: mountain, forest, grassland, aquatic, marine, littoral, karst,

cave and canyon⁸¹. Habitats are inhabited with great number of species from nearly all systematic categories, whose final number is still not known due to insufficient research activities. Natural resource is also exceptionally significant for economic growth and biodiversity development. In the existing framework of consumption, it is being valorized through direct forms of usage – such as food, fuel, materials, and to certain extent, through indirect benefits, i.e. ecosystem services.

Data regarding the manner biological resources are being used are not comprehensive and informative enough to make an assessment in terms of sustainable use of these resources. However, it is evident that some species are excessively exploited as well as that natural resources management is mainly not based on sustainability models, which negatively affects biodiversity. More detailed data on genetic diversity in Montenegro are not available, which makes adequate valorization of genetic potential impossible. Examination of genetic biodiversity is only sporadically done in the area of agro-biodiversity for the needs of examining species diversity of agricultural crops and breeds of domestic animals that are traditionally used for food production.

Assessments of conditions and trends of species diversity in Montenegro are made difficult due to unavailability of necessary data. Available data demonstrate both positive (stable trend or growth) and negative movements (decline in population of followed species, such as the one registered with amphibians and certain bird species in

79 Olivera Komar and Pavle Gegaj, Montenegro I want – National consultation report in Montenegro on post-millennium development goals, April 2013.

80 Ministry of Sustainable Development and Tourism, National Biodiversity Strategy 2010 – 2015, Government of Montenegro, 2015.

81 Division as per National Biodiversity Strategy 2010–2015.

2011)⁸². Species reduction and species loss (especially in aquatic environments) and decline in ecosystem productivity are some of main expected impacts of climate changes on biodiversity⁸³.

Existing **protected natural resources**⁸⁴ include five key national parks: Biogradska gora, Durmitor, Lovćen, Skadar Lake and Prokletije, Special Nature Reserve (Tivat saline), many natural monuments, several areas with special natural features, as well as the area of Kotor-Risan bay with the city of Kotor. National network of protected areas currently covers around 12% of Montenegrin territory⁸⁵. With that goals of the NSSD from 2007 and National Biodiversity Strategy from 2010 have been accomplished in terms of 10% share of protected natural areas in overall surface of the State, respectively target value of indicator that relate to the share of surfaces protected so as to preserve biological diversity within the seventh Millennium development goal regarding procurement of environmental sustainabili-

ty⁸⁶ is surpassed. During 2015, Regional park Piva (Maglić, Volujak, Bioč) was established, covering 32.471,2 ha i.e. 2,35 % of the territory as well as Regional park Komovi, with partial coverage⁸⁷ of 13.232 km². The following initial steps are being taken in order to establish ecological network for preservation of habitat types and species important both for the EU habitat and species network of interest for protection at European level – Natura 2000, and for Montenegro itself. It is planned to also establish Nature park “Dragišnica and Komarnica” that will also cover Nevidio canyon with its surface of 2.570,5 ha, i.e. around 0,2% of entire Montenegrin territory. Even though the NSSD from 2007, as well as other strategic and plan documents anticipated establishment of protected areas in the sea as well, they have not been established yet, but for significant number of localities in the sea ⁸⁸ some basic research has been performed⁸⁹.

82 Environmental Protection Agency, Report on Environmental Condition in Montenegro on the basis of indicators, 2013

83 First national communication towards UNFCCC (2010.)

84 In accordance with provisions of the Law on nature protection

85 During 2013 there was 9,04% of territory under national protection, and that percentage was slightly reduced during 2014. Namely, during 2014 new Law on National Parks was adopted with which new border of Durmitor National Park was established and its surface was reduced for 1.199,9 ha, i.e. 0,09% of territory. During 2015 protected areas of nature, Regional park Piva (entirely) and Regional park Komovi (partially) have been established which resulted in growth of the level of share of protected areas in overall surface of Montenegro up to 12%.

86 Established target value of surfaces protected in order to preserve biological diversity in entire Montenegrin surface was 10% in 2015.

87 With the Decision of the Capital city from February 2015, in respect to overall recognized coverage of 19.504 ha, i.e. 1,41% of entire territory of Montenegro with values from the aspect of nature protection

88 Potential locations are: 1) Luštica (from Mamula to cape Mačka); 2) zone from cape Trašte to Platamun (with narrow zone under severe protection from cape Žukovac to cape Kostovica); 3) wide zone of island Katič; 4) zone from cape Volujica to Dobro vodo; 5) zone from cape Komina to cape near island Stari Ulcinj; 6) zone of Valdano bay to Big bay; and 7) Seka Đerane with southern part of the zone in front of Long beach to Bojana river delta. NS IUOP, MORT 2015

89 Ministry of Sustainable Development and Tourism, Fourth annual report on implementation of the Millennium development goals, 2015.

European goal is to **stop biodiversity loss and ecosystem degrading** until 2020, as well as to recover, wherever it is feasible, all damage done to biological diversity. In the long term, achieving European goals in respect to biodiversity preservation in Montenegro would ensure extended ability of the natural environment to give support to economic development and life quality of people, so it is essential to ensure that biological diversity is adequately treated in the moment of making decisions regarding development⁹⁰.

2.3.2. Forests

As per degree of forest coverage, Montenegro is on top of the scale of European countries. There is 59,9%, i.e. 826.782 ha of territory under forests, and 9,8%, i.e. 137.480 ha under forestry land. With that, target value was reached, the one established within the seventh Millennium development goal that concerns achieving environmental sustainability, respectfully share of land covered with forests (54%)⁹¹.

Evidently, it is significant to have natural expansion of **areas covered with forests** (not only as a result of artificial afforestation but also spontaneous expansion of forest vegetation for the account of agricultural land)⁹². Data regarding condition of forests

are incomplete being that adequate system for monitoring and control of changes incurring at site is not established (for that matter monitoring and control are done through forest management decennial programs, whilst the Agenda requires updating the data within quinquennial intervals).

However, it can be assessed that so far larger scale deforestation has mainly been avoided, but that certain areas covered with forests have been degraded or impoverished by unsustainable logging plans and/or illegal logging. Other significant problems are **forest fires and forest diseases**. In previous couple of years some key documents regulating forestry sector have been enacted, such as: National Forest Policy, Law on Forests and National Action Plan for combating illegal activities in forestry. In 2014, the Strategy together with Development Plan of Forests and Forestry until 2023 was enacted as well as the Strategy of Processing Industry Development of Montenegro from 2014–2018 whose implementation is expected to solve key problems that represent obstacles on the way towards sustainable forest management. It is also necessary to improve the efficiency of their implementation. Discrepancy of certain provisions of significant regulations, such as newly adopted Law on Game and Hunting, with *Acquis Communautaire*, is still evident. It additionally jeopardizes the efforts regarding implementation of sustainable practice in forest resources management.

Evidenced forest logging in the period 2003–2011 was at the level of around 450 to 630 thousand m³ annually (lowest logged

90 UNDP, „National Human Development Report 2014, On the way towards a resource efficient economy“, the United Nations Development Program (UNDP) Office in Montenegro, Podgorica, Podgorica, 2014.

91 Ministry of Agriculture and Rural development, First national inventory of forests of Montenegro – Final report, Podgorica, 2013.

92 Ministry of Sustainable Development and Tourism, Analytic document „Greening of

Montenegrin economy“ – Platform for participation at the Summit Rio+20, Government of Montenegro, June 2012.

gross weight was registered in 2009)⁹³. In the structure of produced assortments, technical and industrial timber is dominant with average share of 52%, firewood in average participates into total logged mass with 30%, while the share of wood waste is somewhat under 20%. Wood processing is characterized by low level of processing and insufficient usage of wood waste (over 80.000 m³ in 2010). In respect to the increment, this evidenced exploitation rate is within limits of sustainability, but real logged timber mass is questionable as well as efficiency of exploitation respectively effects gained from the actual way of timber usage (big logging volume and small share into gross domestic product as a consequence of unrealistic timber value – not fairly evaluated timber value). There are still cases of illegal and unplanned logging that are not evidenced in official statistical data.

Forests are endangered by the impacts of **climate changes** and increased **risks of drought, fire and biotic pests, and that trend will continue in the future**⁹⁴. Forest ecosystems on one side are very vulnerable when it comes to climate changes, and on the other side they have exceptional potential from the aspect of CO₂ sinks and emissions. Danger of forest fires is extremely high. In the last 15 years over 1.500 fires were evidenced, which damaged and destroyed about 1,3 million m³ of wood mass, reduced biodiversity and forest resistance, disturbed landscape authenticity and increased erosion risks. In 2012, fires took hold of even 7% of areas

covered with forests. Aside from fires, the most common factors causing damages in the forests are insects, as a consequence of not establishing forest order and not undertaking adequate and timely interventions; and fungi. Their negative annual impact is estimated to be about 3% of damages incurred on that basis. This indicates that our forests are chronically endangered, but not existentially.

Even though **forest footprint**⁹⁵ has a trend of significant growth since 2006, which was caused by growing demand for wood mass and wood products, forests still have key importance for preservation of bio-capacities of Montenegro, being that they constitute 75% of overall bio-capacities of the state. Growth of ecological footprint follows with the same intensity the growth of ecological footprint export, which indicates the growth of loads on forest ecosystems due to the consumption generated by export demand. Loads generated by economic growth require taking measures with which sustainable regulation of forest logging should to be enabled⁹⁶.

2.3.3. Ecosystem services

Ecosystems provide wide range of goods and services on which human wellbeing and economic development possibilities greatly depend. Ecosystem services mean fertile

⁹³ According to MONSTAT data.

⁹⁴ Ministry of Spatial Planning and Environment, „First National Report of Montenegro on Climate Changes as per the United Nations Framework Convention on Climate Change (UNFCCC)“, Government of Montenegro, 2010.

⁹⁵ One of six components of ecological footprint that reflects forest land purpose for the satisfaction of annual needs from the aspect of logging, production of cellulose and wood products.

⁹⁶ Nicole Grunewald, Laurel Hanscom, Martin Halle, Katsunori Iha, Michel Gressot and Alessandro Galli, Montenegro Ecological Footprint Study, 2015.

soil formation, water purification and air cleaning, enabling recreational and tourist activities, and many others. Ecosystem products include food, fibre, fuel, genetic resources, medicines, etc. From the aspect of resource efficient economy, the problem lies in the fact that many of these services and products are used as if their offer was unlimited and they are not correctly evaluated on the market (they are mostly taken for granted and used as goods “free of charge”). For that reason ecosystems are very often overexploited, degraded and polluted, which negatively influences long-term sustainability of human activities and resistance to external stresses⁹⁷. The concept of ecosystem service is relatively new. The Millennium Ecosystem Assessment⁹⁸ sets the framework for classification of ecosystem services and for improvement of awareness regarding interconnections between ecosystem services and economy, i.e. between biodiversity and human wellbeing. According to this assessment, **ecosystem services** are divided into four categories:

1. Provisioning services – relate to all direct benefits, respectively products man gets from the ecosystem, such as food, natural medications, pure drinking water, fuel, fibre, timber and materials, and so on. Biodiversity in Montenegro is used directly and procures the following provisioning services: biodiversity as food, biodiversity as energy source, biodiversity as timber.

2. Cultural services – mosaic of preserved ecosystems and presence of certain species, give esthetic and cultural values that represent the basis for the development of recreational activities, and thus of tourism. In Montenegro, coastal area ecosystems, as well as preserved mountain and water ecosystems, together with species diversity that populate them are the basis for nature-based tourism.

3. Regulating services – these services relate to regulation of natural processes out of which man can have direct or indirect benefit. In Montenegrin context, the most important ones are: providing certain services such as pollination of both cultivated, and wild flora species, by different sorts of insects and other animals; primary production in grassland ecosystems (pastures) enables livestock breeding, i.e. livestock rearing development; land as agricultural resource enables presence of diverse biological communities, primarily microorganisms that enter into mutualistic relations with fostered cultures; water habitats represent fish hatcheries that are used in diet and are commercially exploited, such being the case of marshes in Skadar Lake; biodiversity significantly contributes to quality and quantity of water resources (certain ecosystems, such as wetland habitats along northern bank of Skadar Lake or along river banks, do the filtration and thus prevent different kinds of pollutions from getting into water ecosystems); presence of healthy ecosystems, primarily forests, prevents land erosion and landslides creation; ecosystems can also have impact on microclimatic conditions; forest ecosystems for example regulate climate in a way that they mitigate the impacts

⁹⁷ It is assessed that in the last 50 years around 60% of ecosystem services on Earth degraded. (European Commission, Road map to a Resource Efficient Europe – EU Roadmap, COM (2011) 571 final.

⁹⁸ UNEP, Millennium Ecosystem Assessment, 2005.

of the wind, prevent high temperatures and reduce its fluctuations, increase air humidity and so on.

4. Supporting services relate to the procurement of basic natural processes and cycles on which ecosystem functions and species survival depends; these are biogeochemical cycles (circulation of water, carbon, nutrients, etc.), soil formation, photosynthesis for primary production and so on. The fact that forests, wetland habitats and marine ecosystems provide services of carbon storage must be particularly mentioned in this context, since thus they contribute to mitigation of impacts caused by climate changes. Skadar Lake for example is one of the biggest peat bog in Europe, and as such represents carbon storage that needs to be supported in the long term⁹⁹.

Even with certain flaws and limitations in approaches¹⁰⁰ used for evaluation, these techniques became constituent part of the way policies are being created and interceded both at EU level, and at global level (e.g.

⁹⁹ Schneider-Jacoby M., Stumberger B., Schwarz U., „Zonation concept for Skadar-Shkoder Lake and the Bojana-Buna Delta“, In: Denac D., Schneider-Jacoby M., Stumberger B. (eds.) *Adriatic Flyway – Closing the gap in bird conservation*; Euronatur, Radolfzell, 2010, pp.103–115

¹⁰⁰ Certain number of theoreticians, for example, disputes ethical basis for evaluation of economic value of biodiversity and ecosystem services, interceding for the opinion that ecosystems have substantial inner value that cannot be measured by market categories. They retain that “giving price” to ecosystem services is justified if it leads to protection of these resources, but at the same time warn about the dangers resulting from incorrect usage or even abuse of these evaluations.

with implementation of the UN Convention on Biological Diversity). Methods for economic evaluation of all ecosystem services were developed during last decade, and not only of those with direct market value, in order to through economic indicators indicate the impact of ecosystem services on human wellbeing, i.e. economy.

Including service values provided by ecosystems into decision making processes and registering economic results (both at micro and macro level) is not practiced to a necessary extent. Examples of ecosystem services evaluation in Montenegro include WWF study from 2005 on Tara river values, evaluation made by Arcadis Ecolas and IEEP in 2007 on benefits from harmonization with *Acquis Communautaire* in the area of environmental protection (Ten Brin et al 2007), then UNDP/ISSP study from 2011¹⁰¹ and the recent (from 2013) evaluation¹⁰² done within GEF/ UNDP project.

Biodiversity and ecosystems in Montenegro are among other things also a very significant economic category: value of tourist, recreational and other activities related to the use of protected area resources as well as value of services these areas provided in respect to water supply and protection of watersheds are estimated to be near 68 million € and in 2010 (about 2,2% of GNP or 106 € per capita). Expenses for financing

¹⁰¹ UNDP Montenegro and ISSP, *Economic Value of Protected Areas in Montenegro*, Podgorica, 2011.

¹⁰² Emerton, L., *Montenegro: the economic value of biodiversity and ecosystem services*, Technical report prepared under the GEF/ UNDP project National Biodiversity Planning to Support the Implementation of the CBD 2011–2020 Strategic Plan in Montenegro, 2013

protected areas were at the level of about 2 million €. That level of funds is insufficient for an adequate management, whereas continuation of such practice could generate significant loss for Montenegrin economy and its population in the long term. In case the option of “investing in natural capital” instead of “continuing the actual practice” of insufficient investing in protected areas should prevail, it is estimated that permanent growing added value for the economy and population would be assured with a total benefit of over 1,5 billion € in the course of the next 25 years.¹⁰³ Nevertheless, possibilities assessed in such a manner still find no adequate application in practice being that investing in protection and management of protected areas is still significantly lower than what is needed and being that biodiversity is generally exposed to significant pressures and degradation¹⁰⁴.

Gross production value of entire Montenegrin economy was 5,24 billion €¹⁰⁵ in 2011 and calculated gross value of those ecosystem services that were possible to be valued was at the level of one fifth of this amount¹⁰⁶.

103 UNDP Montenegro and ISSP, Economic value of protected areas in Montenegro, Podgorica, 2011.

104 National Council for Sustainable Development, Analysis of Achievements and Challenges of the Ecological State: 20 years of the ecological Montenegro, Government of Montenegro, August 2011.

105 MONSTAT, Statistical Yearbook 2012.

106 Emerton, L., Montenegro: The economic value of biodiversity and ecosystem services, 2013; With a more comprehensive evaluation, basic value of chosen biodiversity and ecosystem services in Montenegrin economy: wild species and food for cattle, wood biomass and energy, pollination and seed spreading, maintenance of soil structure and fertility at farms, protection

At the same time, value of mentioned ecosystem services was 2,3 times higher than production value in agriculture, forestry and fishery, i.e. it was 425 million €.

2.3.4. Water

Thanks to high quantity of precipitations and relatively good preservation of **water resources**, Montenegro disposes of quality and abundant groundwater and surface water. Richness and quality of water resources represent one of the most significant comparative advantages of the land. There are significant differences in distribution and yield of water resources – starting from waterless karst areas to those that abound both with surface, and groundwater. Taken as a whole, with average annual runoff of 624 m³/s, Montenegrin territory is considered to be one of the areas rich with water. Out of overall runoff, about 95% is internal, while remaining 5% is considered to be transit water¹⁰⁷. Water is used for the needs of population, in industry, for generating electric energy, as well as for tourism and recreation. Big irrigation system is used at less than 3.000 ha out of existing 51.000 ha of agricultural sur-

of freshwater resources, protection of littoral area, CO₂ binding, landscape and recreational services in the nature, was evaluated to be 982 million €. Services of product procurement (wild edible species, food for cattle, wood biomass and energy) contributed to overall value of about 169 million € or 17%, services of regulation and maintenance (soil fertility that is being cultivated, pollination, protection of watersheds and littoral, carbon binding) with 276 million € or 28%, while the category of cultural services (landscape and recreational services in the nature) contributed to the overall value with 537 million € or 55%.

107 Water management basis of the Republic of Montenegro, 2001.

faces eligible for irrigation¹⁰⁸. Total quantity used for supplying settlements with water is at the level of about 107 million m³ per year. In the period 1999–2008 there has been an increase in the quantity used for about 18%. Quantity of water used in industry (energy industry included) and for irrigation is in downfall during last five years¹⁰⁹.

Water protection system is also characterized by insufficient infrastructure development for wastewater purifying and insufficient control of numerous sources of pollution. Water quality in Montenegrin rivers, measured with the index of water quality, shows positive trend for the period 2009–2012. Around 30% of water courses had very good, 45% good and 25% bad quality in 2013–2014. The most polluted water courses are Vežišnica river, Čehotina river in the area of Pljevlja, lower courses of Zeta and Morača rivers in the area of Podgorica, Ibar river near Bać and Lim river near Bijelo Polje. Condition of water quality, of examined water courses in 2014, was better than in 2013, which is connected to more favorable meteorological conditions¹¹⁰. Data on the status of water bodies in accordance with the provisions of Water Framework Directive are still not available. Value of the level of anthro-

pogenic influence on surface water quality¹¹¹, included into monitoring of the progress regarding achievement of the seventh Millennium development goal, indicates that there was a deterioration, namely increase of the value of this indicator from 29,3% in 2013 to 42,2% in 2014, therefore it is not realistic to expect that target value for this goals will be achieved in 2015 and 2020¹¹². Consequently, more efficient solutions regarding sewage management are imposed as key challenge for prevention of water pollution.

Level of municipal waste water purification is still very low (only about 10% of population is connected to purifying facilities), industrial waste water discharge is barely controlled, and we also have pollution from agricultural activities. The NSSD from 2007 defined as priority, measures referring to the realization of priority projects provided by Wastewater Master Plans. From the adoption of the Strategic Master Plan for sewage and waste water in central and northern region of Montenegro in 2005, significant progress was made in realization of activities defined for the period 2005–2029. The amount of funds necessary to be invested for their realization is 278 million €, and so far about 30 million € was spent, while preparation phase required about 88 million €, which in total makes about 42% of measures provided by this strategic document. Among the most significant measures realized in the period from the adoption of this document, the outstanding ones are: reconstruction of PPOV

108 Ministry of Agriculture and Rural Development data

109 Data source for taken and used quantities of water is MONSTAT (Statistical yearbook 2011).

110 Index is calculated on the basis of ten parameters of physical-chemical and microbiological quality of waters, respectively their aggregation in cumulative indicator. Data source is Indicator-based State of the Environment Report, Environmental Protection Agency, from 2013 and 2014.

111 According to data from Hydrometeorological Institute of Montenegro.

112 Target goal is 15 i.e. 20 classes outside prescribed class for separate groups of parameters through overall number of determined classes

(Waste Water Treatment Plant) in Podgorica (2007) and construction of over 50 km of sewage network in Podgorica, construction of PPOV (Waste Water Treatment Plant) in Mojkovac (2008), **Žabljak** (2013), realization of the 1st phase of sewage network in Nikšić, and it is in its final phase the construction of waste water treatment system in Nikšić, and similar. Two smaller facilities were constructed in Virpazar and Rijeka Crnojevića in order to protect Skadar Lake. Master plan on waste water collection and treatment in coastal region of Montenegro and the municipality of Cetinje from 2005 defines measures and activities that need to be realized in the period 2005–2029. The amount of funds necessary to be invested is 280 million €, and so far about 74 million € was spent, while preparation phase required about 112 million €, which in total makes about 66% of measures planned by this strategic document in the period from 2005 to 2029. Among the most significant measures realized in the period from the adoption of this document, we can emphasize construction and reconstruction of sewage network in Herceg Novi, Tivat, Kotor, Budva, reconstruction of pumping stations in the municipalities of coastal area and construction of wastewater treatment plant in Budva with the capacity of 100 000 ES, including also underwater outfall.

Water supply network losses in urban areas in 2014 were about 61% which represents an improvement in respect to the year before that when those losses were 63%. Reduction of losses represents a progress reflected in the achievement of the goal, reduction of the number of people with no access to drinking water and sanitations until 2015, within the seventh Millennium goal on environmental sustainability. Accomplished progress is a result of investing activities in some of the municipalities of Montenegro (e.g. water supply network expansion in Herceg Novi,

upgrading water supply system in the Royal Capital Cetinje, etc.)¹¹³.

When planning development, richness and mainly good quality of surface waters in the country are often treated as guaranteed and inexhaustible resources, therefore there are no adequate efforts to properly include limitations of these resources and damages they would suffer from different actions into the system of assessment and approval of development projects. Numerous examples of **illegal and unsustainable pebble exploitation** from river beds were evidenced. Protection system from torrent and erosion is also insufficiently regulated. 300 registered torrential watersheds are covered with **erosion processes**, where the quantity of transported alluvium is over 2 million m³ per year. As a consequence, we have barren lands which substantially derange hydrologic conditions (which contributes to flood generating). Processes of erosion and devastation of vegetation cover caused huge soil losses, not only with regard to physical disappearance of surfaces but also with regard to reduction of the content of nutrients, i.e. soil fertility which is its most important property.

Instruments for water management and stimuli for efficient water use are not sufficiently developed nor applied in a way that would ensure long-term sustainable use of

113 Ministry of Sustainable Development and Tourism, „Fourth annual report on implementation of the Millennium Development Goals“, Government of Montenegro, 2015; Indicator is expressed in percent, and calculated on the basis of data on losses in water supply network obtained from municipal water supply and sewage companies as the ratio of water introduced into water supply systems and invoiced water

water resources. Integrated water resources management was not established, whereas water issues were not adequately integrated in different sectoral policies. Due to the lack of inter-sectoral connection and inexistence of unique national **water information system**, accurate values of hydrologic and ecological parameters and their interdependency is not known. Information regarding water status are relatively limited and unsystematic, and are the result of monitoring program implementation that primarily relate to monitoring standard chemical and physical parameters, thus data on water supply. At the same time, it is necessary to enable trust in measurement results and metrological traceability by harmonizing measurements with regulations in the area of metrology. Namely, ground and surface water condition monitoring is not continuous, whereas **fragmentation and discrepancy of competencies from the aspect of management and protection of water resources** is accentuated. Examinations of ground water made so far were irregular and with limited scope.¹¹⁴ Also, national regulations are not harmonized to the necessary extent with EU regulations, in the first place with Water Framework Directive and Waste Water Directive¹¹⁵.

114 Ministry of Spatial Planning and Environment, „First National Report of Montenegro on Climate Changes as per the United Nations Framework Convention on Climate Change (UNFCCC)“, Government of Montenegro, 2010.

115 Level of harmonization of national regulations in respect to Directive 271/91/EEC on municipal sewage is 47%. Commitments aiming at achieving complete harmonization of national legislation with Acquis Communautaire, including passing regulations that regulate the area of water, were defined in the proposal of National Environmental Approximation Strategy, April 2016.

Such approach in the long run can bring to degradation of resource basis, especially in circumstances of climate changes. Available information indicate that climate changes will have significant implications for the possibilities to use water resource in the whole region¹¹⁶, water availability will be substantially reduced, with increased frequency and intensity of floods. In the fourth IPCC report, for example, it is estimated that until the middle of the 21st century in the rivers of southeastern Europe we can expect significant (in the range from 20% to 50%, depending on the area) reduction of river flow and potential for electric energy generating¹¹⁷.

2.3.5. Air

Protection of environment and human health from negative impacts of **air pollution** belongs to the group of priority tasks. **Air quality** directly influences human health, ecosystem condition and agriculture, which requires constant monitoring of air quality in accordance with accepted international standards. It also requires the analysis of emissions of pollutants into the air, their linkage to the sources of those very emissions and examination of pollution impacts on receptors. Aside from accidental extreme situations such as for example industrial averages where impacts of air pollution appear immediately and can be exceptionally dangerous,

116 UNDP, „National Human Development Report 2014, On the way towards a resource efficient economy“, the United Nations Development Program (UNDP) Office in Montenegro, Podgorica, 2014.

117 International Panel on Climate Change (IPCC), Climate Change 2007: Synthesis Report; (https://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf)

negative impact of air pollution on human health and environment in general is usually the result of long-term process of emissions and pollutant deposit.

Emissions from industry, energy industry, traffic and fuel combustion of households mostly contribute to air pollution in Montenegro. Air quality in urban areas was improved in reference to some of main pollutants – sulfur dioxide, nitrogen dioxide and background ozone (SO_2 , NO_2 , O_3)¹¹⁸. Exceptions are particulate matters (PM_{10}) with which we have had deterioration. High concentrations and great number of exceedance of allowed daily average values of PM_{10} are most frequent in industrial-urban zones during heating season. In the period 2009–2012, middle year PM_{10} concentrations were above allowed ones in Nikšić and Pljevlja. Highest concentrations and greatest number of exceedances of allowed daily average concentrations are registered in Pljevlja. Number of exceedances substantially grew in the last two years in Podgorica, and par-

ticularly in Nikšić and Pljevlja.¹¹⁹

For that reason target value of the fourth indicator within the seventh Millennium goal shall not be achieved, i.e. bringing under 35 the number of exceedances of measured PM_{10} concentrations in respect to limit values and tolerance limit for human health protection in Podgorica and reduction of tolerance limit to 0% in 2015¹²⁰. Due to registered exceedances of PM_{10} concentrations, Air Quality Management Plan for the Capital was drafted, thus we can expect achievement of prescribed values only after implementation of measures that will be prescribed by this Air Quality Management Plan. Previously, due to exceedances of prescribed norms, Air Quality Management Plans for Pljevlja and Nikšić were prepared, containing a set of technological and financial measures. Studies on impacts of increased concentrations of specific pollutants on health do not exist, nor assessments of overall damages that the economy suffers due to air pollution and environmental pol-

118 Environmental Protection Agency of Montenegro, Information on environmental condition in 2014, Podgorica, 2015; „1. Immission concentrations of sulfur(IV)oxide (SO_2) in Bar and Nikšić both as average one-hour and average daily values are significantly under prescribed limit values. In measuring stations where background pollution in suburban area is monitored: Gradina in municipalities of Pljevlja and Golubovci, all measured values are under prescribed limit values. The biggest air load with this pollutant was evidenced at measuring point in Pljevlja. Periodically, high hour concentrations were measured, which is the result of coal combustion with high content of sulfur, that is used both in TPP Pljevlja, and in households for heating. 2. Concentration of nitrogen(IV) oxide (NO_2) was in all measuring points under limit values.

119 Reports on environmental condition in Montenegro on the basis of indicators, Environmental Protection Agency of Montenegro, 2013 and 2014.

120 In 2014 in Podgorica we had evidenced 78 exceedances of limit value and 40 exceedances of tolerance limit for PM_{10} particulates, which means deterioration in respect to 2013. Namely, in all measuring stations, except in Bar, higher number of exceedances of average daily PM_{10} particulates was evidenced (maximum 35 during calendar year). Number of exceedances was going from 24 in Bar to 184 in Pljevlja. In Nikšić 104 exceedances of average allowed daily concentration of PM_{10} particulates in the air were registered. Exceedances higher in respect to tolerance limit were evidenced in Pljevlja (122), Nikšić (77) and Podgorica (40).

lution in general¹²¹ (including for example medical treatment costs, absence from work costs and others). The exception is recently published Study on impacts of air pollution on the health of Montenegrin population by the World Health Organization¹²² with which approximate assessment of PM₁₀ i PM_{2,5} particulates influence on human health is given. It is assessed that more than 250 premature death cases and 140 hospitalizations per year can be connected to PM particulates concentrations that exceed recommendations of the World Health Organization regarding air quality. At the same time the biggest burden is air pollution in winter period that arises from combustion of wood in households and coal for the needs of living space heating, principally in Pljevlja, as well as from fossil fuel combustion in traffic. According to condition cross section, costs of premature mortality caused by ambience air pollution with particulate matters and solid fuels combustion made 20.76% of GDP in 2005 and 14.5% of GDP in 2010¹²³.

121 Analysis of impacts from TPP Pljevlja with the prediction of impacts from the second block of TPP on human health prepared by NGO "Green Home" in cooperation with Greenpeace and University in Stuttgart, but it does not represent official document since it was not verified by competent authorities in Montenegro.

122 Presented to the public in March 2016.

123 WHO/OECD, Study on cost evaluation of health impacts due to road traffic-related air pollution, 2015, gives evaluation of costs that incur as consequence of: ambience air pollution with particulate matter, ambience air pollution with ozone and air pollution in living area with combustion of solid fuels; these three types of air pollution cause the biggest mortality risk in global context, right after the risk high blood pressure and smoking carry with themselves.

Technologies that are applied in the industry and energy plants in Montenegro are characterized by high level of inefficiency and high emission of pollutants into the environment. Inefficiency of a great number of small sources of emissions is also a problem (e.g. individual furnaces and heating systems). Growth of negative impacts of traffic on air quality is evident¹²⁴. Application of regulations and economic instruments with which transition to technologies and processes with lower emissions would be ensured is not at a satisfactory level, whereas flexible approach in this area is mainly justified by economic reasons.

Vehicle age/quality that are being used should also be kept in mind (as per MOSTAT data in 2013, more than 54,2% of vehicles used in Montenegro were produced before 1999), as well as traffic concentration during summer months. 58,3 % of all vehicles uses diesel fuel.¹²⁵

NSSD measures from 2007 that referred to air quality were entirely realized. National legislation is in great measure (over 90%) harmonized with *Acquis Communautaire*. Public network of air quality monitoring stations was established, and there are ongoing activities with the aim to increase the number of measuring points given the specific morphologic-geographic characteristics of Montenegrin terrain, as well as

124 UNDP, „National Human Development Report 2014, On the way towards a resource efficient economy“, the United Nations Development Program (UNDP) Office in Montenegro, Podgorica, 2014.

125 Ministry of Sustainable Development and Tourism, Environmental Protection Agency, Podgorica Capital city, Air Quality Management Plan for Podgorica Capital city, 2015.

to procure equipment for cross-border air pollution monitoring. Podgorica Capital city in June 2014 also started with the realization of environmental monitoring of some of its segments, which also included air quality monitoring at representative city locations. Metrological traceability of measuring results should also be enabled. In addition to National Air Quality Management Strategy together with the Action Plan for the period 2013–2016, some measures were defined for which it was evaluated that could be implemented during this period, bearing in mind recognized problems, available means, as well as existing legal and institutional framework.

2.3.6. Soil

Preservation of soil fertility and its quality is an important prerequisite of sustainability of development. However, there are numerous factors that influence losing significant soil properties, and particularly distinguished ones are conversion of agricultural land to construction, pollution and erosion. Conversion of agricultural land to construction is especially expressed in urban areas and coastal zone. With that, damage is made not only to agriculture, but some other negative consequences are generated, such as: soil erosion, environmental pollution, cultural heritage degradation and similar. Irregular waste disposal is distinguished as one of the main soil loads.

Contemporaneously with growing loads on valuable agricultural land, **problem of insufficient valorization of agricultural land** is being distinguished. For example, that is how expert analysis of coastal area in respect

to its attractiveness and advantage¹²⁶ for agriculture demonstrated that in coastal municipalities only 24%¹²⁷ of all available agricultural land is cultivated (available 51.017 ha, including pastures)¹²⁸ on about 4.800 husbandries on which, aside from the owners themselves, somewhat over 3.800 persons are employed¹²⁹. For many of them, agriculture represents additional or occasional occupation, and the number of formally employed people in the sector of agriculture, forestry and fishery is 364¹³⁰. Thereby valid policies emphasize how significant the role of agriculture is and its potential in respect to giving contribution to tourism development (at national level agriculture, forestry and fishery constitute 8% of GDP¹³¹). Analysis also demonstrated that available surfaces with agricultural potential are bigger than those stated in official statistics.

¹²⁶ Ministry of Sustainable Development and Tourism, Integrated Coastal Zone Management Program of Montenegro, (CAMP CG), Analysis of the attractiveness and suitability for agriculture 2014.

¹²⁷ Data obtained on the basis of MOSTAT data from Statistical yearbook for 2012 (Analysis of the attractiveness and suitability for agriculture, CAMP MNE, 2014).

¹²⁸ Statistical yearbook 2012, MONSTAT (since 2013 assessment system replaced by sampling method, so 2007–2013 data were recalculated)

¹²⁹ Statistical Office, MONSTAT, Agriculture census in 2010, Podgorica, 2011.

¹³⁰ Statistical Office, MONSTAT, Population, households and apartments census in 2011 – Table O32

¹³¹ Communication 251/2014 – Gross Domestic Product of Montenegro for 2013, MONSTAT

Existing industrial facilities are also characterized by undefined industrial waste disposal procedure that has negative impact on the environment and human health. Big environmental problems are industrial waste disposal sites, such as: red sludge basin and industrial waste disposal site at KAP, industrial waste disposal site - grit in the Adriatic Shipyard Bijela, ash and slag disposal site „Maljevac“ in Pljevlja and flotation lead and zinc tailing pond Gradac - mine „Šuplja stijena“ in Pljevlja, then location where Steel plant in Nikšić do their waste disposal. There are also locations for hazardous waste in Montenegro, such as a location within the complex Porto Montenegro in Tivat, where waste grit is deposited and flotation tailing pond „Gradir Montenegro“ in Šule and others. Project „Industrial Waste Management and Cleanup Project“, that is being implemented by the World Bank, plans rehabilitation of ecological hot spots (grit disposal site located in the Adriatic Shipyard Bijela, flotation tailing pond Gradac Pljevlja, ash and slag disposal site „Maljevac“, solid waste disposal site at KAP and red sludge basins at KAP location). The Project is in its initial phase of implementation, and total funds needed for the realization of project activities have been procured from the World Bank loan in the amount of 50 million €.

Aside from **industrial pollution rehabilitation, realization of infrastructural projects in terms of waste water management and solid waste management** is seen as a priority. Rehabilitation of the channel Port Milena is a priority due to a high organic pollution caused by introduction of unpurified communal sewage and impact of microbiological pollution on marine living world, as well on human health and tourist valorization of this attractive area. 155 waste disposal sites were also evidenced on which less than 100

m³ of solid waste was singularly disposed, 68 on which 100-1000 m³ was disposed and 50 locations with over 1000 m³ of solid waste. In respect to goals set by the NSSD from 2007, construction of two new solid waste landfills in Podgorica (at location Livade) and in Bar (at location Možura) has been realized. Around 30% of overall quantity of generated waste at year level ends up on non-regulated, and around 30% on illegal dumpsites¹³².

Newly passed National Waste Management Plan until 2020 processes three options of solid waste management: option 1 - forming five regional centers for waste management, option 2 - forming three regional centers for waste management, option 3 - centralized system of waste management. From the aspect of requirements for the establishment of an operational and functional waste management system, from the aspect of the necessity to preserve the space and bring to the minimum pollution dispersion (avoid having more locations that would suffer anthropogenic loads due to waste treatment, and similar) and from the aspect of pollution impacts on human health, National Council for Sustainable Development and Climate Changes evaluated third option as optimal solution for the organization of waste management system in Montenegro. In the moment of National plan being passed, the Government identified the necessity to draft a Feasibility study that will, among other things, give reliable answers from the aspect of application of optimal technological solution for thermal treatment of waste, selection of the location

132 Ministry of Sustainable Development and Tourism, Report on the implementation of Waste Management National Plan in 2013, Government of Montenegro, Podgorica, 2014.

for thermal treatment of waste center, as well as establish the model for introduction of waste management system as per third option into the framework of cost-effective realistic waste management model.

Data from soil pollution monitoring program¹³³ regarding specifically chosen locations demonstrate that increased concentration of pollutants is mainly the result of inadequate disposal of municipal and industrial waste or emission of exhaust fumes and disposal of harmful substances from exhaust fumes near bigger roads. From the aspect of soil pollution caused by atmospheric pollutants, Program for testing of harmful and hazardous substances in soil of Montenegro in 2014¹³⁴ identified increased content of polycyclic aromatic hydrocarbon in soil sampled in Srpska settlement (near the road) which is the consequence of KAP emissions and asphalt base. In Rubeža settlement, increase of heavy metal contents was evidenced as well as of polycyclic aromatic hydrocarbon and PCB congeners, in respect to norm values, which most probably incurred due to impacts of industrial processes in Steel plant. Analysis result indicates that there is no increased content of hazardous or harmful substances in soil sample from the location Komini that could be caused by TPP Pljevlja activities. In soil sample from Golija, content of all tested parameters is within norm values. In respect to the impact of emissions from motor vehicles using oil and its derivatives, no ex-

ceedance of prescribed lead and PAH concentration has been detected. Results that good can be connected to increased use of unleaded fuel. Potential soil pollution due to unselected and improper industrial or municipal waste disposal was seen through physical-chemical analysis of soil sampled near municipal waste disposal sites. Impact of municipal waste disposal site on pollutant content in soil sampled in the near vicinity of municipal disposal site is manifested through concentration increase of inorganic pollutant cadmium in Žabljak and of polycyclic aromatic hydrocarbon in Bijelo Polje. Content of all inorganic and organic pollutants near disposal site Vasove Vode does not exceed prescribed values. Soil at Steel plant disposal site suffers great load. In the sample of non-arable land sampled at around 300m distance from Steel plant disposal site, nearly all analyzed parameters do not exceed prescribed norms. Exemption to this fact is content increase of nickel and chrome that is not attributed to disposal site impact. Analysis results of soil near Brskovo mine indicate increased content of heavy metals in respect to norm values. However, it must be emphasized that entire area is characterized by high content of specified metals of geochemical origin. Content of all other tested parameters is within prescribed values. At location Gradac, increased content of lead, cadmium, arsenic, fluorine, copper and zinc in respect to norm values was evidenced, while in soil sample from the near vicinity of TPP Pljevlja tailing pond, content of all tested parameters was under prescribed maximally allowed concentrations. Presence of crop protection agents did not exceed detection limits for this kind of sample in any of analyzed samples of agricultural land. Analysis results of soil samples from children playgrounds are satisfactory.

133 Environmental Protection Agency, Information on environmental condition in 2014, Podgorica, 2015.

134 Locations in Podgorica, Nikšić and Pljevlja are included in which three industrial hot spots are situated, as well as the location where destruction of ammunition took place - Golija.

Soil fertility control indicated that content of organic substance on average level was not getting reduced and it varied from 2,8% to 3,8%. Erosions represent a significant pressure and were registered at 300 torrential watersheds, where the quantity of transported alluvium is over 2 million m³ per year. As a consequence, we have barren lands which substantially derange hydrologic conditions (which contributes to flood generating). Former activities regarding regulation of torrential areas mainly meant technical measures, while application of biological ones was rare¹³⁵.

National Council for Sustainable Development in its *Analysis regarding achievements and challenges of the ecological state* warns about these phenomena. It is evaluated that the most important and at the same time the most urgent task is to introduce efficient measures that will prevent further devastation of agricultural, especially arable land and valuable areas ambiance-wise, their conversion to construction land, then to realize measures for the increase of agricultural land funds (by fostering currently non-arable land and melioration, protection from erosions and floods, as well as quality rural area development program).

2.3.7. Environment and health

From the aspect of **environment and human health**, due attention needs to be paid to pressures generated on the quality of water, air, sea and soil, respectfully on human health and preservation of good ecosystem condition due to unregulated waste management system. Especially endangered are

ground waters that are the main source of drinking water and a national resource.

As previously stated, air quality is in jeopardy in industrial-urban zones thus causing numerous risks for human health, including those generated due to human exposure to PM₁₀ particulates which, aside from irritating effect, depending on chemical composition, can have allergic and highly toxic effect on health and high carcinogenic potential. Air pollution is a significant problem in the EU, especially when it comes to PM, NO₂ and O₃ whose concentrations often exceed prescribed standards within more densely populated areas. Evaluations are that actual concentrations of particulate matter cause 500.000 premature death cases in the EU and its immediate surroundings at annual basis, and that due to diseases caused by air pollution more working days are lost than it would be necessary to pay for additional pollution mitigation measures¹³⁶. Countries that successfully deal with problems of air pollution are Denmark, Finland, Ireland and Luxemburg where, for example, in certain years there were no exceedances of PM₁₀ limit values at all¹³⁷.

Increased pollution load of surface waters with organic pollutants (orthophosphates and nitrates) from municipal and industrial waste waters, represent significant threat to the health being that it jeopardizes the

¹³⁵ Data of the Ministry of Agriculture and Rural Development

¹³⁶ European Commission, Roadmap to a Resource Efficient Europe – EU Roadmap, COM (2011) 571 final, and accompanying analysis.

¹³⁷ Fedrigo-Fazio, D., Withana, S., Hirschnitz-Garbers, M., and Gradmann, A., „Steps towards greening in the EU, Monitoring Member States achievements in selected environmental policy areas – EU summary report“, prepared for DG Environment. Brussels. 2013.

quality and the quantity of drinking water. When drinking water is concerned, the most frequent reason why tested drinking water samples from municipal water supply systems are unsafe in terms of hygiene is inadequate water disinfection, respectively insufficient concentration or complete lack of residual chlorine, which for its consequence has tested samples being unsafe in terms of microbiology. Aside from that, in certain number of municipal water supply systems in Montenegrin coastal area, especially during summer season and with reduction of the capacities due to source salinization, the quality is also altered¹³⁸. According to microbiological testing results, 10.05% of tested samples of chlorinated water does not meet prescribed safety norms in terms of hygiene, most frequently due to increased total number of bacteria and identified faecal indicators¹³⁹. Hygiene-sanitary condition of water catchment facilities and pumping stations influences hygienic safety of water from municipal water supply systems. From the aspect of hygiene and epidemiology, worn out water distribution network represents a significant risk to quality and safe water supplying. Significant risk factor

relates also to degradation of sanitary protection zones situated around certain water sources through realization of numerous interventions within development-infrastructure projects. Usually, immediate sanitary protection zone is the only established one.

In reference to food quality and safety, microbiological unsafety of food samples from domestic market is substantially higher than of the imported ones¹⁴⁰.

The most significant source of polychlorinated biphenyls – PCBs in Montenegro is maritime traffic, which in 2012 represented 80% of overall emissions of these substances. Overall emissions of dioxins and furans were 2.6 kg, out of which 70% were emissions from non-industrial furnaces. Particular hazard is hazardous waste (old transformers, transformer oils, and other electric material that contain PCBs substances) that is temporarily stored in unsuitable old warehouses or at open, as well as burning of non-selected waste on disposal sites which

138 Out of total number of tested samples of non-chlorinated water in 2012, 516 samples did not correspond to prescribed microbiological safety norms, which in respect to total number of tested samples of non-chlorinated waters means 51,4%. In drinking water samples that did not

correspond to prescribed microbiological safety norms in terms of hygiene, the most frequently identified was increased number of aerobic mesophilic bacteria and rarely of coliform bacteria. Statistical Yearbook 2012, Public Health Institute of Montenegro.

139 Environmental Protection Agency, Information on environmental condition in 2014, Podgorica, 2015.

140 In the group of provisions originating from domestic industrial production, out of total number of analyzed ones, 124 samples or 7,96% did not correspond to microbiological norms. The most frequently microbiologically analyzed provisions are meat products, dairy products, ready meals, milk. The highest percentage of microbiologically unsafe samples in respect to total number of taken samples is with ready meals 30,35%; Out of 124 unsafe samples from domestic industrial production, 60 or 48,39% of them were not considered safe due to the presence of E.coli, and then there was increased total number of bacteria registered in 45 or 36,29% of samples. In samples from the market, microbiological unsafety was most frequently noted due to increased total number of bacteria and identification of E.coli bacteria. Statistical Yearbook 2012, Public Health Institute of Montenegro.

brings to unintentional generation of long-term organic pollutants – POPs substances¹⁴¹.

From ecological aspect **the city of Pljevlja** is dominant ecological hot spot. Data regarding environmental condition indicate that water, air, soil and landscape are degraded due to immediate impacts of numerous pollution sources¹⁴² to which population is directly exposed. That is in great measure a consequence of bad planning and insufficiently controlled industrial and urban development. Aside from impacts of technological operations in Coal mine, Thermal power plant, Vektra-Jakić, impacts of ash and slag disposal sites in Maljevac, transport system and waste and tail disposal sites in Jagnjilo, great number of boiler-rooms and individual furnaces and emissions from the traffic are main sources of pollutant emission (floating particles, PM₁₀ and PM_{2,5} and polycyclic aromatic hydrocarbon – PAH in them). Results of present monitoring of toxicants in soil confirm that content of toxic and carcinogenic substances in soil samples from almost all locations in Pljevlja do not exceed maximally allowed values of concentrations. Deviations from prescribed concentrations were evidenced by the analysis of soil samples from the location Gradac (it relates to increased content of inorganic toxicants of cadmium, lead, arsenic, fluorine, copper and zinc) and Komini (it relates to increased content of inorganic toxicants of chrome and fluorine). Content of other tested inorganic, as well as organic substances at these locations does not exceed

maximally permitted concentrations¹⁴³.

Asbestos represents one of possible causes of increased number of people affected by lung cancer and mesothelioma in Pljevlja, because industries, such as “Cement works”, TPP and its transmission system, Coal mine, breaking system of heavy trucks transporting coal to TPP, as well as “domestic” use of asbestos containing hazardous small particles that are being inhaled, can be one of causes of increased number of people affected by mentioned diseases. However, there is no record on usage and disposal of asbestos as well as possible disease cases as a consequence of inhaling asbestos particles.

Aside from evident indications regarding environmental pollution impact on health deterioration in the municipality of Pljevlja that are confirmed by numerous, yet still unofficial data, no testing has been done to qualitatively and quantitatively establish interdependence of pollutant emissions and health. Inexistence of Environmental Protection and Human Health Action Plan – one of unachieved NSSD measures from 2007, represents significant obstacle for procurement of healthy environment and improved health of people. Being that there is no health-ecological information system, valid data regarding monitoring of environmental pollution effects on human health are missing.

2.3.8. Space and urban development

Protection of natural resources has strategic significance for sustainable development of Montenegro. Nature, landscapes and cultural

¹⁴¹ Air Quality Management National Strategy with Action plan for the period 2013–2016.

¹⁴² Analysis of existing environmental condition in Pljevlja in respect to the existing and planned capacities of TPP

¹⁴³ Environmental Protection Agency, Information on environmental condition in 2014, Podgorica, 2015.

properties make significant set of values inwrought in the identity of the space and way of living in Montenegro. However, at certain locations they are significantly jeopardized by **unsustainable spatial management**. Irrational use of valuable and non-renewable spatial resources is manifested through extremely **excessive construction areas** in respect to the number of inhabitants and development needs. Construction areas are often in conflict with vulnerability i.e. value of natural resources, while **quality and equipment of constructed land** are significantly jeopardized. Compliance with actual landscape values and valuable elements of local traditional typology of settlements, as well as with the system of public areas and public amenities as important elements of settlement and city functionality is missing. Green vegetation i.e. green infrastructure, especially the public one, is an important element of functional regulation, good composition and space quality in constructed areas. Nevertheless, aside from municipal infrastructure, another important element of settlement functionality, missing in vast majority of our planning documents, is the system of public areas and public amenities. For quality assessment of a constructed area, architectonic composition of singular structures, their surrounding and being fitted into current ambience is also important.

Aside from sectoral regulations and policies, the most important practical regulators of natural resources use are spatial plans. Landscaping and spatial planning system disposes of key sustainable development mechanisms with which permanent reduction of both visual, and economic and other values and space resources created due to degradation and its irrational use can be prevented, enabling in that way integration of numerous sectors into spatial planning

process and establishment of their mutual compatibility. However, spatial planning system, as an integrative platform, did not accomplish expectations set by the NSSD in 2007, and patterns of unsustainable spatial development are in contrast with clearly established goals and decisions of Spatial Plan of Montenegro until 2020, together with constitutional decision regarding ecological state, therefore with modern good practices of spatial planning and management.

Despite the progress that was achieved in respect to updating of the existing and adoption of new planning documents, the hierarchy in terms of planning documentation preparation is not sufficiently respected – top-down approach in plan drafting, which makes it additionally complicated due to the lack of special urban plans of singular municipalities (only in the last couple of years spatial-urban plans have been passed for a significant number of municipalities), while minor or negligible progress was achieved in respect to application of modern concepts such as landscape protection, space vulnerability assessment respectively space sensitivity and suitability assessment. Exemption to this is realization of CAMP MNE which had for its goal development of national policy on integrated coastal zone management and application of instruments of sustainable spatial planning of the coastal zone through drafting of Special Purpose Spatial Plan for the Coastal Zone. In CAMP analysis it is assessed that planning of construction areas, substantially bigger than the needed ones, represents irrational consumption of valuable and non-renewable spatial resources and it has numerous negative consequences that include: dispersed construction that requires significantly longer traffic network and more expensive municipal equipping of construction land; unnecessary consump-

tion of other categories of land, especially valuable agricultural and forestry lands and valuable biodiversity areas; higher energy and fuel costs i.e. higher load onto the environment, and other. Modern land policy development process is still not over, as the basis for spatial planning, while completion of integrated information system implementation is being finalized.

For purposes of status of built-up areas assessment and for the needs of developing sustainable development policy by 2030 the following **indicators** were applied: existing construction area, planned construction area, the extent to which the construction areas are used or built-up, population density of construction area, consumption of construction area per capita, then established spatial reserves within construction area¹⁴⁴. Parameters shown in such a multi-layered manner¹⁴⁵ enable quality insight in state of the space and relatively precisely indicate higher or lower deviation from preferable models of sustainable spatial development. Podgorica with its population density of only 16.1 inhabitants per hectare, compared to regional centers like Belgrade with population density of 50 inhabitants per hectare, Tirana 72 inhabitants per hectare or Zagreb 38 inhabitants per hectare, as well as to European cities such as Prague 46 inhab-

itants per hectare, Frankfurt 29 inhabitants per hectare, Hanover 25 inhabitants per hectare, Berlin 30 inhabitants per hectare, Barcelona 43 inhabitants per hectare, Paris 38 inhabitants per hectare can be considered a settlement with low population density. Relatively low population density is the result of very vastly defined construction areas and in case of Podgorica (within Plan for General Urban Regulation) 64.5% is used, which even though it is low, it is still above the average of other cities in Montenegro. Following the existing low population density of construction area, and having in mind spatial reserves within construction area of settlements, certain potential can be identified within adopted plans in form of around 46.239 new inhabitants. At the same time recently adopted Capital city Spatial Urban Plan (2014) talks about residential zone reserves for new 400.00 inhabitants in adopted plans of detailed urban regulation. Indicators of the level of usage of construction area outside Plan for General Urban Regulation, and within planned construction areas, show that we have slightly lower level of usage, more precisely 53,1%. However, relatively high and dispersed construction development outside Plan for General Urban Regulation is evident and it is not covered by planned construction areas that are established by planning documents. Out of totally 3.427 ha of constructed area outside Plan for General Urban Regulation, 1.435 ha is not covered by construction areas that are identified through planning documents. This data reflects how dispersed constructions are at the periphery and in rural ambience of the Capital city and how insufficiently adapted the instrument of construction area is for that type of construction and control of its development and sustainability.

¹⁴⁴ Ministry of Sustainable Development and Tourism, and UNDP, Analysis of spatial development sustainability on the basis of indicators of the level of constructed facilities for the area of Montenegro, NSSD basic analysis, UNDP Office in Montenegro, 2015.

¹⁴⁵ Data were elaborated for the level of Plan for General Urban Regulation (within Spatial Urban Plan), i.e. for the level of General Urban Plan, as well as for the zones not covered with Plan for General Urban Regulation /General Urban Plan and represent areas outside urban centers.

In the municipality of Andrijevica great development projections can be noticed that are far from reality. With new Spatial Urban Plan 11,0% of the extent to which the construction areas are built-up outside Plan for General Urban Regulation was reached, and somewhat over 40% within Plan for General Urban Regulation. Spatial reserves of construction development areas for the municipality of Andrijevica are five times higher than the existing built up of construction area that is only 451 ha. The area of Andrijevica is over planned, and construction areas are defined too vastly and irrationally from the aspect of cost-effectiveness and financial sustainability of all systems, above all infrastructure, that should be a support to new construction areas.

Just like Andrijevica, the municipality of Berane¹⁴⁶ represents an area where population that inhabits area outside urban center is dominant. That fact explains why there are twice as more constructed areas outside Plan for General Urban Regulation than within it. Recently adopted Spatial Urban Development Plan (2014) sees construction development areas within and outside Plan for General Urban Regulation getting much bigger in respect to the existing level of constructed facilities, which, as in case of Andrijevica, can be considered to be irrational and insufficiently inspired specific development projects and potentials that later on could also procure economic sustainability of such defined spatial visions. Data on spatial reserves within construction area of settlements indicate that reserves are for over 1200 ha bigger than overall constructed area for the municipality of Berane. This data is a good illustration of irrationality in terms of defining construction area.

In the municipality of Bijelo Polje the trend of increasing construction areas with new planning document is less obvious even though the extent to which the construction areas are built-up within Plan for General Urban Regulation is somewhat over 62%. Indicator of the extent to which the construction areas are built-up outside Plan for General Urban Regulation is only 25,6%, which is actually caused by traditional dispersed construction. Only part of such fragmented and indented construction is covered by construction areas that are defined within Spatial Urban Development Plan. Out of a total of 1.688 ha of constructed space outside Plan for General Urban Regulation, only 273 ha is situated within planned construction areas. Construction in these areas was generated in a long period of time on agricultural or forestry land and was following the character and needs of local economy, dominantly relied on agriculture, cattle breeding and wood industry. Generally speaking, it can be concluded that spatial reserves of construction areas are very big with the surface of almost 1600 ha.

Balances obtained from Spatial Urban Development Plan of the municipality of Danilovgrad indicate the increase of construction development areas especially in the zones outside Plan for General Urban Regulation for settlements Danilovgrad and Spuž. However, those increases have unsustainable proportions just like in many other municipalities, so it can be stated that the extent to which the construction areas are built-up within and outside Plan for General Urban Regulation is still unnecessarily low, 58,6% and 20,6%. Indicators for the municipality of Danilovgrad also show another data that well illustrate Montenegrin trend of increase of construction areas – dimensions of spatial reserve within construction

¹⁴⁶ With this analysis newly established municipality of Petnjica is covered.

development area are 2685 ha that is almost 1000 ha more than the surface of all current constructed areas in the municipality of Danilograd.

Carefully planned spatial development is getting particular significance in the municipality of Žabljak being that, among other things, it is necessary to contemporaneously preserve uniqueness of natural and landscape diversity and encourage interests in new development projects. However, even in Žabljak the indicator of the level of usage of construction area outside Plan for General Urban Regulation is relatively high – 78,7%. Dispersed and insufficiently connected construction, in case of Žabljak indicates the fact that over 50% of constructed area outside Plan for General Urban Regulation is not covered with construction areas. Even though traditional model of construction in this area is characterized by similar dispersed spatial matrices, it can be said that adopted planning documents, first of all Spatial Urban Development Plan, additionally stimulate such unsustainable spatial model. Excessive dispersion negatively influences landscape protection, especially in zones spread alongside Durmitor National park. Spatial Urban Development Plan of the municipality of Žabljak affirmed to a significant extent the increase of construction development area within Plan for General Urban Regulation so that the indicator of the extent to which the construction areas are built-up within Plan for General Urban Regulation is only 35,2%. This parameter is a good illustration of the need for a more rational and compact spatial development of the municipality of Žabljak.

Just like the municipality of Žabljak, the municipality of Kolašin has similar indicators of spatial development that show sig-

nificant increases of construction areas that still remain unvalidated in practice. All stated parameters indicate the need for reduction of construction zones and particularly careful treatment of new areas outside Plan for General Urban Regulation that will be in function of new tourist development. While moving towards a better traffic connectivity of Kolašin with Podgorica, it would be useful to affirm sustainable principles of spatial development that would direct the development towards locations that can contribute to greater benefit of the community, and at the same time preserve and improve the identity of Kolašin, as the second tourist development zone of the north of Montenegro. Indicators for the municipalities of Mojkovac and Plužine show identical phenomena as the ones in the municipalities of Žabljak, Kolašin and Berane.

Indicators for the municipality of Pljevlja still show identical phenomena as the ones in Podgorica, Kolašin, Žabljak, Bijelo Polje, respectively the trend of increase of construction areas of settlements is also evident in this municipality. This means that we have great extent to which the construction areas are built-up outside Plan for General Urban Regulation which is caused by inherited dispersed construction areas that are mostly situated outside Plan for General Urban Regulation and not recognized by planning documents. This phenomenon is followed by a very small extent to which the construction areas are built-up within Plan for General Urban Regulation, only 38%.

The area of Nikšić as the biggest municipality in Montenegro is inhabited by over 75.000 inhabitants, dominantly (over 55.000) urban population (within Plan for General Urban Regulation). Indicator of the extent to which the construction areas are built-up within

Plan for General Urban Regulation is hardly over 50%, while in the zone outside Plan for General Urban Regulation it is considerably lower and it is only 13,2%. This shows that even in the example of Nikšić we have planned construction areas that are far over current need. Identified spatial reserves of even 7.500 ha, which is over 3.000 ha more than the surface of all current constructed areas on the territory of this municipality, clearly show the need for a more rational approach towards dimensioning of construction areas in the future.

The municipality of Rožaje, together with the municipalities of Andrijevica, Šavnik and Plužine are characterized by the lowest extent to which the construction areas are built-up, both of those within Plan for General Urban Regulation, and those outside it – 33% and 12,5%. Data that spatial reserves, defined by planning documentation, are four times bigger than the existing construction development is a picturesque illustration of spatial development unsustainable trends in the municipality of Rožaje. Indicators for the municipality of Šavnik show identical phenomena. In the case of Šavnik, proportions of the lack of logic, in terms of projected spatial development, are even bigger. Intention of local self-government and planners is obvious – to reaffirm the area of the municipality of Šavnik, which is, for a long period now, facing the trend of depopulation, by opening great number of development possibilities, and thus making construction areas, dominantly oriented towards tourism. It is clear that this ambition has no realistic foundation and must be corrected. Specificity of Šavnik, in respect to majority of other municipalities, is in the fact that dimension of so-called urban center (zone of the Plan for General Urban Regulation) are very modest in respect to the rest of the municipali-

ty. That means construction development is of only 16 ha within Plan for General Urban Regulation and over 230 ha outside Plan for General Urban Regulation.

Indicators for the municipality of Plav covering also the area of newly established municipality of Gusinje, aside from the trend of construction areas over-dimensioning, show lower index of the extent to which the construction areas are built-up within Plan for General Urban Regulation in respect to the one outside Plan for General Urban Regulation. This can be partially explained by dispersed construction at the periphery that is not covered by construction zones recognized in planning documentation. However, only 35% of the extent to which the construction areas are built-up within Plan for General Urban Regulation indicates the insufficient sustainability of current spatial development.

Construction development areas in littoral region, i.e. coastal area are exceptionally over-dimensioned in respect to the number of inhabitants and tourist capacities¹⁴⁷. Share of construction areas in the total surface of six coastal municipalities in Montenegro is 15,5% out of which only 18,5% is constructed and the remaining 81,5% or 19.042 ha are unconstructed part of 19.042 ha construction areas. Same indicators in the 1 km wide belt from the coastal line demonstrate that even 46% of the territory was planned for construction, out of which less than one third (30%) was actually constructed. As an example it can be stated that the share of construction areas in entire territory of Croatian

¹⁴⁷ Ministry of Sustainable Development and Tourism, National Strategy of Integrated Coastal Zone Management of Montenegro, Government of Montenegro, Podgorica, 2015.

coastal districts (that have similar population density as Montenegrin coast) is 5-7%, and that the same share within coastal units of local self-government is 8-10%. But, if the share of planned construction within 1 km wide belt from the coastal line is compared to the situation in coastal areas of Italy, France and Spain, it can be seen that these states, with substantially higher population density than the Montenegrin one, have lower share of planned construction (on average about 30% in respect to 46%). Data confirming that surface of planned construction area that is not constructed (19.042 ha) is sufficient to place residential facilities (as per existing construction density) in which another 600.000-800.000 inhabitants could live and tourist capacities for at least 270.000 new beds demonstrate the proportion of construction development area over-dimensioning.

Spatial planning indicators show that land conversion that already took place can be considered within the limits of average on European continent - 2,4%. However, data illustrating dimensions of planned construction areas bring us to the conclusion that most often it is the result of over-dimensioned surface defined without clear criteria, insight in sustainability parameters, carrying capacities and similar. This trend is equally present in more or less all municipalities of Montenegro and can have huge consequences to spatial development in the future. It must be borne in mind that until 2020 EU policies take into consideration direct and indirect impacts on land usage, while from the aspect of land conversion they stick to the goal not to have net converted land after 2050¹⁴⁸.

Taking into consideration condition assessments and CAMP analysis recommendations, the draft of Special Purpose Coastal Zone Spatial Plan gives its contribution to overcoming of spatial development unsustainable trends by:

- reducing the share of construction area in coastal zone for about 6,8% (from current 15,5% to about 10%);
- reducing construction area for residences, i.e. residential tourism;
- increasing the extent to which the construction areas are built-up to over 50%;
- introducing coastal set-back;
- eliminating conflicted purposes on the significant number of localities of valuable parts of coastal area;
- supporting sustainable rural development in the hinterland of coastal area by determining corresponding purposes and regimes of spatial usage in respect to proposition of CAMP for establishment of open rural areas.

Aside from sustainability of spatial management, for sustainability of the city and **quality of life in urban areas** the following is important: air quality, biodiversity preservation, food quality, population health condition, residential quality, sustainability of natural resources consumption, sustainability of waste management, etc. Because of that, aside from competent institution at national level, important role in creation of sustainable community belongs both to local self-governments, and local communities. Finally, each and every citizen bears responsibility for the way they relate themselves to the city and its resources. For the time being, we are missing sufficiently developed

collective consciousness and consciousness of the individual regarding resource limitations, as well as regarding the need for their continuous renewal and preservation for future generations. That is the reason why in urban areas there are problems such as bad management and neglected public spaces, disappearance or inexistence of city layers that define quality of life in them, such as recreation space and parks, pedestrian and bicycle corridors, playgrounds, spaces for youth, adults, alternative, informal cultural actors and similar.

Particular segment of the quality of life in urban areas should be procured through **enabling access to everybody**, and especially to persons with disabilities. In that sense, the public shows sensibility, but in practice we do not have more significant improvements, thus local communities must engage themselves in introduction of adequate measures in this area.

From the aspect of the quality of life in urban areas, it is significant to mention that **residential policy** was established by passing National Residential Strategy for the period 2012–2020 together with the Action Plan in 2011, then the Social Housing Law in 2013. The Law should enable the Government and local self-government units to solve in a more quality and efficient way residential needs of endangered groups, respectively of households which on the market cannot solve their residential problem; by eliminating the gap between their income and apartment prices. The Law stimulates investments through private-public partnerships, not neglecting the participation of the state, local self-government units and non-profit sector that were active in previous period in terms of project development in this area. Despite of what has been said, quality of life

in urban areas is significantly reduced due to still evident lack of affordable apartments for the poor and youth. Large number of subtenants is evident as well as apartments for the market and empty apartments in the north and in rural areas. Construction of apartments most frequently does not follow the principles of energy efficiency, which additionally burdens the resources.

Even though the responsibility of **spatial planning system** is the biggest, it is important to emphasize that the level of control that belongs to it is limited and does not cover all departments whose contribution is important for the quality of planning documents and spatial development sustainability.

2.3.9. Metals and metalloids (metallic, non-metallic and energy mineral resources)

The most important energy mineral resource is coal, with reserves of around 215 million tons of lignite in deposits of Pljevlja basins and around 25 million tons of brown coal in Berane basin¹⁴⁹. Initial activities regarding offshore oil and gas reserves exploration in Montenegro are ongoing. The most significant deposits of **metallic mineral resources** are those of red bauxite and lead and zinc ore. Proven reserves of red bauxite that can be used in the production of aluminum are situated in the central part of our state (area of Nikšić Župa) and amount at around 21 million tons. Lead and zinc ore reserves are mostly located in the area of mountains Ljubišnja and Bjelasica (mines Šuplja Stijena

¹⁴⁹ Montenegrin Academy of Sciences and Arts, „Montenegro in the 21st century – in the era of competitiveness“, Podgorica, MASA, 2010, Vol. 73, Book 1, p. 50.

and Brskovo) and amount at somewhat over 34 million tons¹⁵⁰. **Non-metallic mineral resources** are gaining significance in economies of the majority of developed countries, thanks to accelerated development of technique and technology. Due to low level of technical-technological development, these trends are only at their initial phase in our country. Deposits of 13 sorts of non-metallic mineral resources (different sorts of stone, bigar, brick clay, cement rock, white bauxite, betonite, quartz sand, etc.) that have economic significance are situated within Montenegrin territory, and ten of them are being used¹⁵¹.

Economic crisis effects and changes in economy structure (e.g. decline in industrial production, especially in resource intensive industry of metals, and service growth) during last five years brought to significant consumption reduction of metallic and non-metallic resources both in terms of absolute amounts, and in respect to GDP. However, with present exploitation dynamics¹⁵², assumed construction of planned thermo-energy facilities and usage of actual technologies, quality bauxite and coal reserves could be exhausted during

coming couple of decades. Metal ores aside from being used for some other purposes (for example civil engineering) are one hundred percent used in metal industry. Consumption of metalloids is mainly connected to civil engineering, and to a lower extent in industrial activities. Domestic consumption of civil engineering sector is dominated by materials like technical-construction stone (crushed stone and pebble and sand), as well as other non-metallic resources (marble, granite, dolomite) that are used for the production of construction materials, first of all cement.

Thereby **sustainable materials management respectively efficient use of mineral resources and metals** were not subject of particular attention in Montenegrin economy in the last couple of years. In the period since 2006 to 2013, total domestic consumption of materials grew for 7%. The biggest contribution to the growth of DMC was brought by consumption of non-metallic mineral resources (share in overall DMC is 60%), which was increased for 21%. Then we have consumption of biomass and fossil fuels with annual growing rate of 12,3% and 5,4% respectively. Ore metal consumption is the only one that recorded negative growing rate during monitored period (-83%), and at the same time great decline of share in overall DMC is registered, from 8,4% to 1,3%. Due to decline in construction activities, which were significantly affected by the crisis, growth in consumption of metalloids was with the rate of 4.8%. Being that in this year we started with the realization of Bar-Boljare Highway Project and some other significant construction activities, it cannot be expected to maintain consumption rate of metalloids at the same level. Due to that, it also cannot be expected that civil engineering sector will be able to re-

150 UNDP, „National Human Development Report 2014, On the way towards resource efficient economy“, the United Nations Development Program Office (UNDP) in Montenegro, Podgorica, 2014.

151 Ibidem.

152 Exploitation of lignite in the last decade was at the level from 1,2 – 1,9 million tons per year (excluded 2009 when it was produced less than one million ton). Since 2000 the average of extracted material was over 600.000 t of red bauxite per year, and since 2009 there was a drastic decline (only 50.000 t in 2009, about 160.000 t in 2011).

spect recommendation of the Government of Montenegro in terms of enabling use of domestic resource sustainability until 2020.

2.3.10. Natural and anthropogenic hazards, risk, protection and rescue management in emergency situations and rehabilitation of consequences in emergency situations

Globally speaking, population growth, expanded poverty, especially in areas exposed to hazards, urbanization growth as a consequence of the effort to unconditionally generate economic growth, thereafter climate changes, it all causes bigger **risk of natural and anthropogenic hazards**, with growing number of people and communities under risk. Complex infrastructure, concentration of economic activities, social stratification and their complex spatial and functional connectivity in urban areas significantly contribute to population vulnerability to the effects of natural and anthropogenic hazards. Climate changes are one of the biggest challenges which mankind is facing, with direct consequences on world economy, environment and society as a whole. The Fifth International Panel on Climate Change Report demonstrates that climate changes are occurring in real time, therefore it is necessary to take urgent measures in order to mitigate their effect and proportion of generating changes. Scientific findings unequivocally demonstrate that unforeseeable consequences of climate changes can be avoided only if Earth's surface temperature is not increased for more than 2 °C in respect to preindustrial era. Unless substantial additional efforts are invested in the implementation of actual global climate policy, by the end of the century, average temperature will be increased for 3,7-4,8°C in respect to

preindustrial era. In the last years Montenegro is taking measures both within national frameworks, and by participating in international ones, in order to contribute to global fight against climate changes. Namely, Montenegrin engagement at international level includes two equally important and mutually complementary set of activities – complying with relevant international multilateral agreements in the field of climate changes, primarily United Nations Framework Convention on Climate Change, thereafter meeting standards and charging itself with commitments within the process of accession to the European Union. For that reason, a set of significant strategic documents has been adopted whose implementation should enable effective facing and/or preventing consequences of climate changes impacts. In 2015, National Climate Change Strategy until 2030 was adopted as well as Intended Nationally Determined Contributions (INDC) for reductions in greenhouse gas emissions. Also, First and Second National Communication on Climate Change and First Biennial Update Report on Climate Change have been prepared.

Climate changes significantly influence the multiplication of hazard risks. As key hazard risks, the following ones can be singled out¹⁵³: seismic hazard risk, generation of landslides, drifts, avalanches and similar, which are connected to steep or canyon-like parts of the relief. All examinations performed so far in reference to seismic risk, including CAMP analysis for coastal area, indicated a rather emphasized need for studious establishment of vulnerability functions of all standard facilities and infrastructural sys-

¹⁵³ Ministry of Interior, National Strategy for Emergency Situations, Government of Montenegro, December 2006.

tems. The question was posed on how much recommendations of micro-seismic classification and safety standards are being respected within new spatial plans and during construction activities. **Risks of seismic activities** in coastal area of Montenegro are rather high. The widest areas of high seismic vulnerability (namely zones with expected ground acceleration from 0.35 g¹⁵⁴ and 0.60 g) are situated in the area of the municipalities of Bar and Ulcinj (especially wider region of Ulcinj, region of Gornja Klezna, area of south slopes of Rumija and Možura massifs, i.e. area between Bojana river and Bar). Areas of great seismic impact are also present in the area of Sutomore, Petrovac, Budva, Radanovići, Kotor, Risan and Herceg Novi.

Seeing the geomorphologic characteristics of Montenegrin territory, plain landscapes (e.g. Zeta Plain, Nikšić field and other) are subject to floods with huge consequences. **Floods** can endanger settlements, agricultural areas and roads in river valleys and plains. Montenegrin terrain is endangered by degradation processes. In 300 torrential watersheds, covering 460.000 ha, there is an annual production of alluvium of over 6 million m³. Despite limited data, it can be assessed that erosion is very highlighted in coastal area. Karst erosion was the cause why considerable surfaces turned into barren land with really scarce and very sparse vegetation cover. Aside from land vulnerability to torrential activity that is regular phenomenon after high intensity and long lasting precipitations, another characteristic form of water erosion is abrasion, which takes place as the impact of sea waves' activity. Due to cumulative wave activity and unsustainable construction, with average or reduced accumulation of alluvium from wa-

ter courses on the beaches, surface reduction of certain beaches is becoming more and more obvious. However, assessments regarding the intensity of these activities on beaches are not possible to be given due to the lack of systematic monitoring of coastal processes¹⁵⁵.

In the last 15 years, several larger **forest fires** were evidenced in Montenegro, during which significant surfaces were burnt and considerable quantity of wood mass damaged or destroyed. Also, there is a risk of industrial hazard due to outdated technologies in industrial facilities, as well as radiological and biological risk in transboundary context.

For the purpose of assessing climate change impacts on hazard risks, aside from projections of future negative impacts that will be created in accordance with scientific findings unless global temperature growth is stopped, particular attention needs to be given to already observed trends of meteorological circumstances both at global, regional, and national level. Both observations and projections indicate that due to climate change the most vulnerable areas in Europe are the following: South Europe and Mediterranean basin, mountain areas, especially the Alps, coastal areas, areas subject to floods and islands, Arctic region and cities. Most part of Montenegrin territory belongs to Mediterranean sub-region (as per sub-regional EEA classification of

¹⁵⁴ Acceleration of gravity unit: 1 g = 9.81 m/s²

¹⁵⁵ Ministry of Sustainable Development and Tourism, Integrated Coastal Zone Management Program of Montenegro (CAMP CG), Analysis of coastal zone vulnerability of Montenegro, 2013.

Table 2-2: *The most significant effects of monitored and projected impacts of climate changes on ecosystems, agriculture, economic sectors and human health*

FIRST AND SECOND NATIONAL COMMUNICATION ON CLIMATE CHANGE OF MONTENEGRO AND NATIONAL STRATEGY ON INTEGRATED COASTAL ZONE MANAGEMENT	EUROPEAN ENVIRONMENT AGENCY (EEA)	
	Mediterranean sub-region	Mountain sub-region
vegetation period prolongation expansion of insects and forest diseases shifting of forest species towards higher latitudes reduction of surfaces under spruce, abies alba and scots pine floods (especially area of Ulcinj, Ada Bojana, zones of smaller torrential watersheds and Bojana river delta) land erosion in coastal area and barren land expansion water erosion, especially in the area of torrential courses surface reduction of beaches surface reduction of agricultural and forestry land in coastal area failed crops increased water demand in agriculture loss of biodiversity and reduction of attractiveness of tourist space in coastal area reduction of water balance increase of time and space imbalance of water regime reduction trend of the level of Skadar Lake negative impact of heat waves on human health	reduction of annual river flows loss of biodiversity water demand in agriculture reduced crops forest fires mortality due to heat waves expansion of habitats for specific disease carrier reduction of hydro-energy potential reduction of summer tourism and possible growth during other seasons	reduction of glaciers shifting of flora and fauna species towards higher latitudes extinction of specific species in the Alpine region land erosion reduction of skiing tourism

Europe) or to South Europe (as per sub-regional IPCC classification of Europe) aside from northern-mountain and Polimlje-Ibar region that with its mountain range going from north-east towards south-east (Durmitor-Sinjajevina-Bjelasica-Prokletije) belongs to mountain/alpine sub-region¹⁵⁶. Such classification places it in one of the most vulnerable areas of Europe with special accent on coastal area, areas subject to floods and mountain areas. In connection to that, the most frequent negative implications on ecosystems, agriculture, economy and human health are increase of average temperature and extreme air temperatures, increase of sea surface temperature, reduction of annual precipitation quantity, growing trend of sea level and more extreme circumstances (droughts, heat waves, strong rains that cause floods, storms i.e. cyclones). Some of the most significant consequences are shown in table 2-2 in form of comparative analysis of effects of observed and projected impacts on climate changes in Montenegro, the Mediterranean and mountain sub-region.

On the basis of climate change impacts, climate change variability, extreme circumstances and new projections, priority sectors¹⁵⁷ for the implementation of the **measures for climate change adaptation** are: water resources, public health, agriculture (agricultural land, agricultural production). Energy production was not taken into consideration as a priority for adaptation, being that this sector is more significant from the aspect of technology application in terms of emission reduction.

These sectors are somewhat adapted to current climate conditions, but such kind of adaptation needs to be changed in order to adapt to new impacts generated due to climate change. Generally speaking, long term adaptation is an ongoing process that completely includes ecosystems and socio-economic systems. Thereby both mitigation and adaptation are necessary and complementary, because if temperature stabilization up to +2 °C is not reached, then adaptation costs are also growing. If 1 € is invested into flood protection, 6 € are saved on damage rehabilitation costs. However, if nothing is being done, just postponing of the application of adaptation measures, will generate higher damage rehabilitation costs (e.g. >=100 billion/year until 2020, 250 billion/year until 2050 in the European Union).

Preliminary damage assessment caused by climate changes in Montenegro¹⁵⁸ is focused on only few factors, seen through different time periods. Assessments demonstrate that in the period until 2030 losses in corn crops will be 0.016 million €, increased water demand of crops will cost 0.074 million €, and export losses of electric energy produced in hydro power plant Piva will be 6.6 million €. For the assessment of economic impact of climate changes on tourism sector, two models were used¹⁵⁹ and opposite results obtained that show the amount of 34.2 million Euro of loss due to reduction of income from tourism and income increase of 13.9 million €. These two models do not match in their forecasts until 2030, but in the long term,

156 EEA/IPCC classification.

157 Ministry of Sustainable Development and Tourism, Report on new technology transfer, TNA, 2012.

158 UNDP, Economic impact of climate change in Montenegro - at first sight, the United Nations Development Program Office (UNDP) in Montenegro, Podgorica, 2010

159 Hamburg Tourist Model (HTM) and project PESETA model

until the end of the century, huge losses in the sector of tourism are expected (33.5 – 85.4 million €). Also, it is estimated that by 2100, climate changes will cause increased morality due to increased temperatures, which can bring to financial losses ranging from 4.6 to 85.2 million €.

National Strategy for Emergency Situations identified dominant hazards at national and local level in Montenegro. Within the Ministry of Interior, Directorate for emergency situations was established whose competencies are risk, protection and rescue management in emergency situations as well as rehabilitation of consequences in emergency situations (earthquakes, fires and other natural and technical-technological disasters). Also, Coordination team for emergency situations was also constituted, Law on Protection and Rescue was adopted, coordination system and National platform for reduction of disaster risks were established. In the last couple of years, capacities of protection and rescue systems in terms of providing response to different kinds of natural disasters and those provoked by humans, were tested during floods (January, November and December of 2010), extreme meteorological phenomena – snow (February of 2012), as well as forest fire extinction. Directorate for emergency situations of the Ministry of Interior formed National rescue team responding to floods and Urban Search and Rescue Team (USAR), which was formed in accordance with INSARAG standards¹⁶⁰.

¹⁶⁰ INSARAG activities (International Search and Rescue Advisory Group) aim at improving the preparedness for emergency situations and include strengthening of cooperation among international USAR teams and exchange of information regarding operational actions and learned lessons. INSARAG guidelines were

17 municipal plans for protection and rescue from floods were drafted, as well as 13 municipal plans for protection and rescue from fires, 2 municipal plans for protection and rescue from earthquakes and 6 intervention contingency plans for protection and rescue from earthquakes for six elementary schools. Also, there are over 80 drafted business contingency plans for protection and rescue from fires, as well as one intervention contingency plan for protection and rescue from chemical accident for red sludge basins. Inter-curricular activities “Education in the area of emergency situations caused by natural disasters” were introduced in elementary schools (from 4th to 9th year)¹⁶¹, that will increase the level of knowledge of students regarding different kinds of disasters and ways of acting in case of different kinds of natural, technical-technological and other hazards¹⁶²

prepared by members of USAR teams worldwide, as a guidebook for international USAR teams and endangered states, for emergency actions in bigger disasters. It is not a final document since it will be improved through learned lessons and best examples from the practice through established assessment of international emergency action in disasters. (More details: the United Nations, Office for the Coordination of Humanitarian Affairs, Field Coordination Support Section (INSARAG Secretariat), “INSARAG guidelines and methodology”, 2006).

¹⁶¹ Within the project “Preparedness and response to disasters and reduction of disaster risks” realized by the Directorate for emergency situations of the Ministry of interior, Bureau for Educational Services and UNICEF Office in Montenegro in the period 2012–2013

¹⁶² Tmušić Ljuban, Marković Zorica, Analysis of protection and rescue system in Montenegro with recommendations for improvement, Collection of papers from the first Conference of the National platform for disaster risk reduction

2.4. State of economic resources

2.4.1. Macroeconomic trends and sustainable development management

The level of economic development of Montenegro is actually the inheritance of many economic and non-economic factors that were making their effects in previous development periods, both on available development factors and state of national resources, and on application and quality of the realization of different development concepts. Montenegro was behind other Yugoslav republics, while going through the process of intensive transformation of its economic structure, from accelerated deagrarization and industrialization, and thereafter gradual strengthening of service sector in the last twenty years.

Twenty five years of Montenegrin transition was marked by a decade of transition recession (1990-1999), period of gradual recovery until renewal of Montenegrin independence, then three years long period of investment boom with average GDP growth rate of 9%, then six years long period of deep economic crisis and gradual recovery of economic activity. Real GDP from 1990 was reached only in 2007¹⁶³.

Medium-term projections of growth (and development, that includes transformation

of economic structure) gravitate towards average real growth rate of 4% per year until 2020, i.e. up to 4,5% per year during NSSD implementation period¹⁶⁴. According to the rule “70”, it means that **Montenegrin GDP could be doubled in 15 years**, which coincides with implementation period of this Strategy (2016-2030)¹⁶⁵.

From independency of Montenegro in 2006 and adoption of the first NSSD in 2007, economic development of Montenegro was characterized by significant changes. After initial period of growth with exceptional volume of foreign investments in the period from 2007-2008, global financial crisis reflected itself really negatively on the small and open Montenegrin economy. Unsustainability of economic growth based on external factors (primarily inflows of foreign direct investments) and its unsatisfactory connection with internal development factors such as efficient use of natural resources (soil, energy, mineral, water and forestry resources, flora and fauna) and technological changes (innovations, improvement of production methods, organization and creation of new products) came into focus.

of Montenegro, December 2014.

163 2007 GDP represents 103,5% of GDP from 1990 in constant prices from 2005 (UNSTAT, 2015).

164 Energy Development Strategy of Montenegro until 2030 (Government of Montenegro, 2014, p. 19) gives projection of average realistic annual GNP growth rate of Montenegro in the period 2015-2020 in the amount of 3,9%, from 2020-2025 of 3,5% and in the period 2015-2030 of 3,4%; The document, Reform proposal for competitiveness of Montenegro gives projection of average realistic GDP growth rate of Montenegro until 2020 in the amount of 4%, and in the period 2020-2025 of 4,5%.

165 In constant fertility version of population growth until 2030 (628.518, MONSTAT, projections from 2014), income per capita in 2030 would reach the level of 11.440 € (GDP/pc).

Key long term macroeconomic indicators are, aside from growth rate, inflation rate, employment, as well as payments equilibrium, where indebtedness indicator, inflow of foreign direct investments (FDI) and trade deficit indicator, i.e. balance of current transactions, should be particularly followed..

Reduction of **unemployment** is one of key challenges for Montenegrin economy. By the end of 2015 Montenegro had 172.517 registered employees, employment rate (15-64) of only 52,5%¹⁶⁶, and about 40.000 unemployed¹⁶⁷ (18,8% registered unemployment), while this indicator as per labor force survey was at the level of about 17,6% for 2015. Until 2030, with planned NSSD measures, especially in the area of economic resources, it is possible to reach **population activity rate (16-64) from 63% to 69%**, respectively from 86% to 95% with regards to average population activity rate (15-64) in the EU. Employment rate growth of 5% (to 57,5%), with proportional growth of working contingent (15-64), would enable over **32.000 new jobs until 2030**. Starting from growth projections of overall employment, it is important to emphasize that, as per WTTC projections, tourism sector and travels will relatively increase their share in overall employment rate from 10,3% in 2015 to 13,8% until 2026¹⁶⁸.

166 Employment rate (15-64) represents the ratio of the assessment of employed people as per LFS (Labor Force Survey) 2015 (221.700) and assessment of the number of inhabitants of 15-64 years of age (422.037)

167 The number of registered unemployed corresponds to the number of people getting unemployment health insurance and are registered with Health Insurance Fund

168 World Travel and Tourism Council, WTTC report for Montenegro, Economic Impact

Listed trends would also lead to reduction of unemployment rate and getting closer to EU average, i.e. to one-digit unemployment rate. Space for **employment growth should also be looked for in possibilities to introduce green economy**¹⁶⁹ and in “greening” process of the existing jobs, respectively sectors that with their green transformation directly contribute to reduction of ecological footprint.

The biggest potentials for creating **green jobs** are placed in renewable energy sources (wind energy, solar sources, biomass, geothermal sources and small hydro-electric plants), recycling, public and railway traffic, energetically efficient construction, organic agriculture and sustainable small farms, sustainable forestry management, and activities in tourism. In UNEP/UNDP study¹⁷⁰ which on the basis of stimulatory model analyses impacts of green investments, it is estimated that until 2020 with **green investments** up to 17.500 new jobs can be opened, out of which about 95% would be in tourism sector and accompanying activities, and the rest would be involved in activities concerning implementation of energy efficiency measures in construction and traffic.

2015

169 UNEP defines green economy as an „economy that leads to a bigger wellbeing of people and social justice whilst environmental risks and ecological rarities are significantly reduced. It is an economy based on investments that reduce greenhouse gas emissions and pollution; improve efficiency in the usage of energy and other resources; prevent loss of biodiversity and services provided by ecosystems.

170 UNEP/UNDP Montenegro, Assessing the impact of green economy investments in Montenegro: a sectoral study focused on energy (transport and buildings) and tourism, 2012.

More than 16.000 new jobs connected to tourism sector would be opened through indirect effects i.e. through better use of domestic and local supply chains (substitution of imported goods with domestic ones, primarily agricultural products are concerned).

Basis of foreign-economic balance in the middle term, within existing model of economic growth based on attraction of foreign investments, should be looked for in:

- Sustainable management of public debt, so that the growth of entire economic activity can bear the burden of debt servicing (*more details in the chapter Sustainable Development Financing*);
- “Equilibrium” of outflows as per balance of current transactions and inflow as per FDI. With reduction of import dependency and strengthening of priority economy sectors, positive trends in reduction of goods deficit, i.e. in overall balance of goods and services can be expected (Chart 2-2).

In the long term, with strengthening of **competitiveness** of Montenegrin economy, gradually we can strengthen export orientation of the country and on that basis adapt chosen development model that gives the best effects in terms of quality of life of citizens on sustainable basis.

Key sustainable development challenges of Montenegro are still maintenance of macroeconomic stability, acceleration of economic growth by introduction of green economy while respecting, preserving and valorizing all national resources, especially natural capital, with higher resource efficiency and rising of economic competitiveness level, thereafter balanced development

both on regional level, and among members of different social groups.

2.4.2. State in sectors of key importance for social sustainable development

In entire post war period, Montenegrin economy was rather dynamically changing its structure and development priorities. Even though significant economic growth and development was achieved, Montenegrin economy got out of “**Yugoslav**” **development phase** with low level of competitiveness of its economy (high import dependence, modest export orientation and orientation towards former-Yugoslav market). In six decades long time horizon, primary sector reduced its share in GAV¹⁷¹ to 11,4%, industry with civil engineering to 16,2%, while sector of services reached 72,3% of share in GAV (Table 2-4).

Transformation of **economic structure** was followed by population migration from rural areas into cities, i.e. from northern municipalities into central and coastal region, which also affected **employment movement**. Today, the share in registered employment is 1,6% in agriculture, 18,1% in industry and civil engineering, then even 80,3% in sector of services.

Employment rate is only 52,5% while registered unemployment is 18,8% (2015), which indicates significant presence of gray economy and informal employment. Share of those who are completely or partially informally employed is at the level of one third of total number of employees in 2014 (out of which 2/3 are not engaged by formal

¹⁷¹ GDP makes gross added value (GAV) together with taxes on products minus subventions

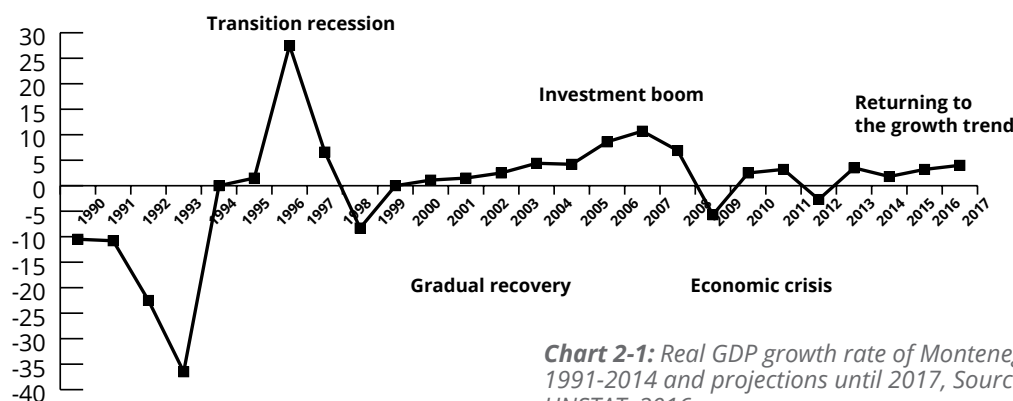


Chart 2-1: Real GDP growth rate of Montenegro 1991-2014 and projections until 2017, Source: UNSTAT, 2016

employer)¹⁷². At the same time, inexistence of these jobs would double the number of unemployed, and thus increase the risk of poverty. According to the National Human Development Report for 2015, informal unemployment rate is the highest among the youth (34%, for persons of 15-24 years of age) and the old (73% for persons of 65 years of age and more). Measures and activities that were being implemented in previous period in terms of eliminating informal employment, did not result in a more significant reduction.

Being that, as per the document Development directions of Montenegro from 2015-2018 (Table 2-5), development priorities of Montenegro are: **tourism, energy, industry and agriculture**¹⁷³, in the coming period it is necessary to work on strengthening of resource efficiency, especially in the sector of

industry and agriculture, then, on sustainable basis, try to reclaim the share of these two sectors into overall branch structure, respectively maintain agriculture at 10% and reclaim the industry, i.e. secondary economy sector to 20% of overall branch structure of Gross added value (service sector 70%).

Even with the trend of economic recovery, **existing economic structure is not adapted to sustainable development requirements**, because it is still in a great measure based on polluting industries and unsustainable exploitation of natural resources. Additionally, attractiveness of Montenegro as a tourist destination brought to accelerated urbanization, conversion of agricultural into urbanized land and huge pressure on coastal area. Even with singular legal solutions, the majority of decisions regarding implementation of development projects are still taken mainly on the basis of exclusively economic effects, neglecting social component and effects on the environment. Montenegro strengthened its strategic middle-term framework by adopting **horizontal strategic documents** that cover numerous horizontally and mutually connected development issues. The longest term development horizon is given by National Strategy

¹⁷² UNDP, „National Human Development Report 2016 - Informal work: from challenges to solutions“, UNDP office in Montenegro, Podgorica, 2016. p. 10.

¹⁷³ Ministry of Finance, Development Directions of Montenegro 2015-2018, Government of Montenegro, July 2015

Table 2-3: Chosen macroeconomic indicators in Montenegro, 2007- 2014, Sources: MONSTAT, CBME

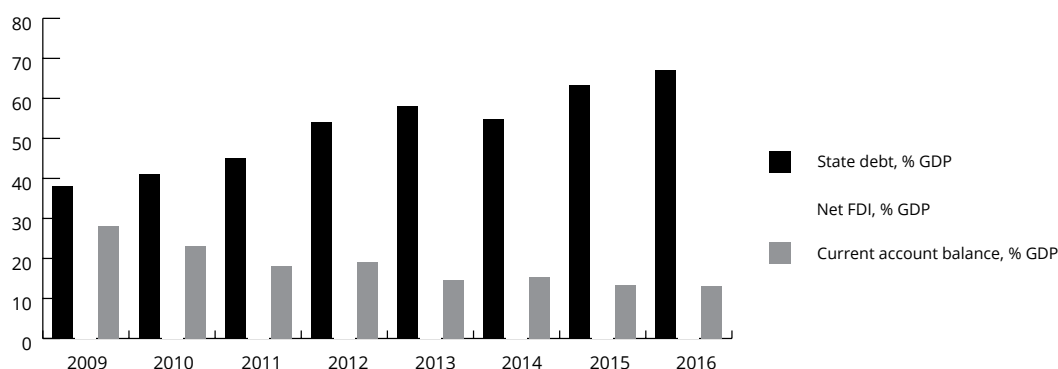
	2007	2008	2009	2010	2011	2012	2013	2014	2015*
GDP (mill. €)	2.680,5	3.085,6	2.981,0	3.125,1	3.264,8	3.181,5	3.362,5	3.457,9	3595
Realistic GDP growth (%)	10,7	6,9	-5,7	2,5	3,2	-2,7	3,5	1,8	3,2
GDP/pc (u €)	4.282	4.908	4.720	5.045	5 265	5.126	5.413	5.561	5.779
Inflation	7,7	7,2	1,5	0,7	2,8	5,1	0,3	-0,3	1,5
Industrial production (%)	0,1	-2,0	-32,2	17,5	-10,3	-7,1	10,6	11,4	0,2
Net inflow FDI (mill. €)	524,9	567,6	910,9	552,0	389,1	461,6	323,9	353,9	619,3

for Sustainable Development, National Strategy for Climate Change by 2030, Spatial plan of Montenegro, as well as Economic Reform Program, Macro-fiscal guidelines (that will become fiscal strategy), as well as important strategies in terms of financial sustainability such as Public Debt Management Strategy in the middle-term. Middle-term Program of Accession to the EU that is being revised every year is a particularly comprehensive strategy. Finally, determination of guidelines for long-term development was also given through Structural Reform Program until 2020, adopted in April 2016 that promotes six areas of structural reforms: reforms for the growth and development of entrepreneurship, SME and investments, reforms of labor market, social protection and retirement system, reforms of education system, reforms of health care system, reforms of public finances management and administrative reforms.

Strategic middle-term framework was also strengthened through passing great number of sectoral development strategies that regulate issues of significance for sustainable development of Montenegro and that are focused on:

- **Physical capital** (strategies in the area of environment, agriculture, fishery, energy, transport). Key strategies in this area are: Waste Management Strategy of Montenegro until 2030, National Biodiversity Strategy, National Air Quality Management Strategy with Action Plan for the period from 2013-2016, Strategy for the development of agriculture and rural areas 2015-2020, National Action Plan for the development of organic production 2012-2017, Fishery Strategy of Montenegro 2015-2020, Strategy for Forestry and Wood Processing Industry Development 2014-2023, Transport Development Strategy 2008-2018, Energy Development Strategy until 2030, Renewable Energy Sources Development Strategy until 2020, Energy Efficiency Action Plans, etc.
- **Human and social capital** (education sector, science, healthcare, social policy, including also strategies for the protection of human rights of specific categories of population, Strategy for cooperation with the Diaspora 2015-2018, etc.).

Chart 2-2: State debt, Net FDI and Current account balance in GNP of Montenegro, Source: Ministry of finance, 2016;



● **Improvement of business ambience in Montenegro** such as: Regional Development Strategy 2014–2020, Industry Policy until 2020, Sustainable Economic Development Strategy of Montenegro through cluster development 2012–2016, Strategy for the development of SME 2015–2020, Strategy for Stimulation of competitiveness at micro level 2011–2016, Strategy of Women Entrepreneurship Development 2015–2020, National Action Plan of Montenegro for the period from 2014–2016 for the South East Europe (SEE) 2020 Strategy, Strategy and Action Plan for taking over of *Acquis Communautaire* in the area of free goods flow 2014–2018, National Consumer Protection Plan 2012–2015, Market Supervision Strategy (2009), Strategy of Montenegro for application of *Acquis Communautaire* in the area of free goods flow 2014–2018, Accreditation Development Strategy 2015–2018, Strategy for the Development of Metrology in Montenegro 2016–2018, Standardization Development Strategy 2015–2018, FDI Incentives Strategy (2013–2015; new is being drafted 2015–2020), Action plan: recommendations for “regulation Guillotine” 2012–2015, Action plan for combating grey econ-

omy (annual), Development Strategy of Information Society 2012–2016, Development plan of economic diplomacy (2013), Strategy for the development of national branding 2016–2021, etc.

● **Other sectoral strategies** – Development Strategy of processing industry 2014–2018, Development of civil engineering sector until 2020, National housing strategy until 2020, Tourism Development Strategy in Montenegro until 2020 (2008), etc.

Even with development priorities being defined through the above overview of strategies, in majority of cases there are no permanent **coordination structures** for monitoring of strategic documents implementation, nor ensured sources of financing per type of activities and years. Strategies in economic sectors recognize **sustainable resources management** within general goals, but they do not manage to completely elaborate the measures and make commitments in terms of making such approaches operational in an adequate manner. Similar situation is with spatial planning where integration of sustainable development requirements is present at the level of guidelines and goals, but defining sustainable spatial purposes

Table 2-4: Change of economic structure of Montenegro 1952-2013, Source: Statistic Year Book for relevant years, MONSTAT 2000 and 2014

SECTORS	Share of sectors in National product					Share in Gross added value	
	1952	1960	1970	1980	1990	2000	2014
Agriculture and forestry	42,6	31,3	17,1	11,1	14,2	12,5	10,0
Industry	7,4	20,1	28,6	30,8	35,1	19,1	13,5
Construction	20,1	15,9	15,6	14,7	6,8	4,3	4,2
Traffic	4,5	10,8	13,3	15,2	20,9	10,5	4,4
Trade	21,9	18,3	22	18,7	13,4	14,1	14,2
Hotels and restaurants	3,5	3,7	7	4,5	4,7	2,8	8,2
Other			4	5	3,7	36,9	45,5
Total	100%	100%	100%	100%	100%	100%	100%

are often lacking. For that reason it is essential to harmonize legislation and sectoral policies with National Strategy for Sustainable Development goals and measures. At the same time it is necessary to strengthen the orientation towards green economy and related approaches and instruments of sustainable development (sustainable production and consumption, sustainable use of resources, relying on information society, social responsibility, integration of climate changes into sectoral strategies, etc.), so that stable and sustainable economic growth could remain a promoter of sustainable development of Montenegro in the period until 2030.

Aside from insufficient coherency of sectoral policies, Montenegrin economic sectors are characterized by **inefficient use of natural and human resources**, especially energy and water, with low level of technological development and recycling of generated quantities of waste. Aside from negative environmental impacts, such situation

also negatively impacts competitiveness of economy and opens substantial space for the introduction of resource efficiency policies and measures.

2.4.2.1. Energy

Energy is one of priority development sectors in Montenegro. In order to have this sector developed in accordance with the principles of sustainability, efficient use of resources, clean production and consumption and be the generator of employment and green economy, it is necessary to continue with giving support to the usage of renewable energy sources and energy efficiency measures. Especially, it is necessary to plan measures for reduction of greenhouse gas emission. In reference to that careful planning of further development of this sector is needed.

Main priorities of energy policy of Montenegro until 2030 are: a) energy procurement

Table 2-5: Development directions of Montenegro 2015-2018

Development goals	Efficacy of economic policy will be measured with the following indicators :		
	Average GDP growth rate, realistic around 3,6%		
	Reduction of unemployment rate from 18% in 2014 to 16,6 % in 2018		
	Servicing current and development needs from the Budget		
	Overall volume and dynamics of investments (average growth rate 7,9%), with FDI inflow and achievement of the level of around 13,2% of GDP in 2018		
Long-term strategic goal	Improving quality of life of individuals in Montenegro in the long term		
Contribution of the strategy to economic development of ME	Getting back to economic growth above the potential one, i.e. realistic growth of GDP in the amount of 3-4%		
	Reducing deficit in the public finances and acquiring balanced budget, and Reducing share of informal economy		
Strategy is based on	Concept „green economy		
	Development priorities: tourism, energy, agriculture and rural development and industry		
	Relevant sectoral strategies, and		
	Macroeconomic and fiscal framework 2015-2017		
PRIORITY DEVELOPMENT SECTORS			
1. Tourism	2. Energy	3. Agriculture and rural development	4. Industry
DEVELOPMENT DIRECTIONS			
Smart growth	Sustainable growth		Inclusive growth
Policy areas			
1. Business ambience	9. Agriculture and rural development		15. Labor market
2. SME	10. Forestry		16. Education
3. Processing industry	11. Energy		17. Sport
4. Competitiveness	12. Environment		18. Social protection
5. Science	13. Traffic		19. Healthcare
6. Higher education	14. Civil engineering and residence		
7. IT			
8. Tourism			

certainty (constant, certain, quality and diverse energy procurement aiming at balancing the delivery with buyers' demands), b) development of competitive energy market (ensuring liberalized, non-discriminatory, competitive and open energy market on the basis of transparent conditions, as well as enabling free market competitiveness in non-monopolistic activities (electric energy and natural gas production and procurement), basing pricing policy for energy-generating products on market principles, as well as creating conditions for free entrance of new participants on the market (independent energy producers, providers, traders); and c) sustainable energy development (enabling energy development based on accelerated, but rational use of own energy resources by appreciating environmental principles, increasing energy efficiency (EE) and usage of renewable energy sources (RES)), as well as the need for socio-economic development of Montenegro¹⁷⁴.

According to Indicator-based State of the Environment Report ¹⁷⁵ last decade was characterized by **primary energy consumption**¹⁷⁶ of about 21% (from 1.285 ktOE¹⁷⁷ in 2000 to

1.017 ktOE in 2011). In respect to 2000, in 2013 consumption of primary energy was lower for about 18,8% with average annual declining rate of 1,5%¹⁷⁸. In the structure of overall consumption of primary energy for 2013, the share of coal and renewable energy sources was approximately the same (35% and 37%), petroleum products participated with 27%, and electric energy with 1% in overall consumption.

In the structure of overall consumption in 2011, fossil fuels were dominant with 72% (coal 42% and oil derivatives 30%), while renewable sources (domestic production of electric energy out of hydro sources and biomass) participated with 15%, and the remaining 13% were mainly relating to imported electric energy. Natural gas is not used since there is no gas exploitation or infrastructure for gas delivery and distribution.

When **final energy consumption**¹⁷⁹ is concerned, in the period 2000–2013 it grew for 10%, whereas until 2007 growing trend was registered, and then overall consumption is declining and reaches the amount of 664 ktOE in 2011. After that in 2012 we had a growth of final energy consumption for 13%, and after that a drop of 2,9% (727 ktOE

¹⁷⁴ Ministry of Economy, Energy Development Strategy of Montenegro until 2030, Government of Montenegro, 2014

¹⁷⁵ Environmental Protection Agency, Indicator-based State of the Environment Report for 2014, September 2015, p. 176

¹⁷⁶ Primary energy consumption or gross domestic consumption is primary energy production (obtaining energy or energy-generating products out of a natural source) increased by the imported one

¹⁷⁷ ktOE – kilo ton of oil equivalent, conventional measuring unit that is used for statistical-comparative purposes and corresponds to the quantity of energy that is being released by

combustion of one ton of crude oil

¹⁷⁸ Environmental Protection Agency, Indicator-based State of the Environment Report for 2014

¹⁷⁹ Final energy consumption is the energy consumed in sectors of traffic, industry, services, agriculture, public sector and households as final consumers (therefore not including energy used by transformation facilities). Indicator follows progress in respect to reduction of energy consumption per sectors (energy consumed by final consumers) by implementing energy efficiency and energy preservation policy.

in 2013). Annual growth rate of overall final energy consumption for monitored period is 0,7%. Significant changes in consumption structure incurred during monitored period, thus in 2013 share of certain sectors was as follows: households 40%, industry 28%, traffic 27%, services 4% and agriculture 1%. From the aspect of sectors, consumption was reduced in industry for 26%, in service sector for 49%, in agriculture for 2%, and increased in traffic for 5% and in households for 124%. The most significant contribution to the reduction of final energy consumption in industry was given by production decline in metal industry that at the same time is the main industrial consumer of energy in Montenegro.

In the period 2010–2012 **electric energy consumption** was in the range from about 3.900 to 4.200 GWh. Share of Aluminum Plant in overall electric energy consumption by the end of this period reached its lowest level ever (28% or 1.110 GWh). Net imported electric energy (import decreased by export) in the last years was at the level of one fifth of overall consumption (exception was 2010 with extremely high quantities of precipitations and outstanding production from hydro sources, when with imported quantities only 6% of overall needs was covered). However, in 2013 electric energy production of 3.785 GWh was achieved, which is for 941 GWh higher than in 2012 (that production growth of 33% belongs to production in hydroelectric power plants). 203,97 GWh of electric energy was imported, which is three times less than 646,9 GWh of exported electric energy¹⁸⁰.

180 In the next period it is expected that the category of net energy export is gradually reduced as the consumption increases, and increased as energy production from domestic sources in-

As chart 2–3 demonstrates, when we talk about **energy intensity** (measured by primary energy consumption per GDP unit) and especially about development of overall energy consumption and GDP growth, extremely favorable trends are evident, i.e. reduction of energy intensity for 73%. Being that primary energy consumption in monitored period was reduced for 18,8%, and GDP tripled, economic growth was being followed by reduction of needed energy. The highest consumption of energy was evidenced with activities that are not productive (households and services). Therefore, it cannot be stated with certainty if these positive trends in energy intensity were actually caused by target measures for improvement of energy efficiency¹⁸¹ or if they were spontaneous improvements. Energy efficiency for that reason remains key priority for the achievement of sustainable development goals and transformation of economy in terms of efficient resource use.

Benefits from improvement of energy efficiency are multiple and include cost sav-

creases (in 2013 – 442,93 GWh).

181 First Action Plan (APEE 1) was most successfully implemented in the part where legislative framework was being established, thereafter promotional dedicated projects for the improvement of energy efficiency and awareness rising activities prepared and realized. The largest number of measures provided for households was realized according to the plan or with certain delays, half-way success was achieved in realization of measures for service sector, while achievements in industry and traffic sectors were rather modest. As the biggest issue in the implementation of energy efficiency policy, we have recognized insufficient capacities, insufficient collaboration and coordination, insufficient integration and understanding of energy efficiency issue and insufficient financial support from the state.

ings, economy competitiveness, contribution to energy safety, reduction of needs for new capacities, new jobs and other. A study that dealt with assessment of the number of jobs in the EU dependent on the resource efficiency improvements came to a conclusion that particular potential in creating new employment is seen in the application of technologies for the reduction of energy consumption in various areas (from isolation of the housing stock through application of heat pumps to interventions in the sector of traffic).¹⁸² Overall cost savings in financial energy consumption that could be reached through realization of measures from the second *Energy Efficiency Action Plan of Montenegro for the period 2013–2015* were assessed to be at 14,7 ktoe. Assessments given by UNDP demonstrated that reconstruction of illegally built units (whose number is estimated to be about 100.000) in terms of improvement of energy efficiency would lead to creation of new 6.200 jobs (involved in the very activities and related sectors), while at annual level savings of all types of energy would be at the level of nearly 350 GWh (together with assumed implementation of renewal program during following 10 years).

Existence of basic preconditions for **oil and gas production** in the seabed of south Adriatic geologic basin has been proven. So far, about 10.000 km of 2D (two-dimensional) seismic profiles, 4 drill-wells and around 310 km² of 3D (three-dimensional) seismic researches have been done in the seabed. Former researches indicate the existence of

hydrocarbon reserves, however serious assessment of hydrocarbon reserves can be made only after completion of reserve verification phase. With the Law on Exploration and Production of Hydrocarbons (2011) preconditions for energy development and competitive conditions in terms of exploration and production of hydrocarbons were created, where special emphasis was given to optimization during use of mineral raw materials, while respecting the principles of national interest protection and while providing safety and stability to investors when carrying out their investments and business activities. Further researches should not be initiated without consistent implementation of instruments with which negative impacts on the living world of the undersea, as well as on tourist activities and fishery are eliminated.

Aside from production of hydrocarbons, Energy Development Strategy until 2030 also plans **natural gas supplying**. Development of natural gas system of Southeast Europe is planned through construction of regional Ionian-Adriatic gas pipeline (IAP) that would represent a part of Trans-Adriatic pipeline (TAP) and Gas Ring Concept.

Air pollution and contribution to greenhouse effect are main negative impacts arising from the use of fossil fuels in the production and energy consumption. Intensity of impacts depends on fuel quality and type of equipment thermo-energy facilities have. In 2013, 76,1% of GHG, i.e. greenhouse gas emissions (not taking into consideration certain synthetic gases) generated from energy sector, that is from the use of fossil fuels in thermal power plant Pljevlja, industry, traf-

182 Erademaekers Koen at. all, „The number of Jobs dependent on the Environment and Resource Efficiency Improvements“, report prepared for DG Environment, Ecorys, Rotterdam, 2012.

fic and households¹⁸³. Earlier data¹⁸⁴ demonstrated that overall GHG emissions in 2010 were about 15% lower in respect to 1990, while on the basis of updated GHG inventories presented on the Second *National Communication*¹⁸⁵ it can be concluded that subject reduction was substantially higher (at the level of about 26%). Different sources (for example Indicator-based State of the Environment Report and Second National Communication) contain substantially different historical data regarding GHG emissions. Differences are mainly consequence of emission evaluation methodology being upgraded and data from energy balances for previous years being available.

Implementation of **EU climate and energy policy** will have significant implications on our natural resources and their use (primarily for reserves of lignite and brown coal, air quality, water courses and soil/space). Main goals of these policies confirmed by the strategy *Europe 2020* are:

- Until 2030 reduce GHG emissions in the EU need for 40% in respect to 1990 in order to achieve planned reduction of 80–95% until 2050 in accordance with international agreed goal to maintain

air temperature growth below 2°C;

- Provide increased share of renewable energy for at least 27%, with improvement of energy efficiency and “smart” energy infrastructure; increased share of renewable energy has the key role in transition towards the establishment of a more competitive, safe and sustainable energy system;
- Increase energy efficiency for at least 27%.

This framework has also for its goal construction of competitive and safe energy system that needs to provide approachable energy for all consumers, increase safety in terms of energy supply from the EU, reduce dependence on energy import and procure new possibilities for development and employment. With regard to that, at the end of 2013 the European Commission invited Montenegro to consider establishment of **emission reduction commitment**¹⁸⁶ and to start thinking about its climate and energy framework for 2030 in the way defined by *EU Green paper*¹⁸⁷ from 2013.

Montenegro can be classified among countries with **low level of greenhouse gas emissions** (GHG), both overall annual emissions, and emissions per capita and per GDP unit. Nevertheless, in September 2015, Monte-

¹⁸³ In inventory making of greenhouse gases, classification of sectors does not match standard economic classification so energy covers all combustion of energy-generating products (both in energy production sector, and in industry, traffic, services and households)

¹⁸⁴ For example, ex Report on Millennium Development Goals in Montenegro 2010 – 2013

¹⁸⁵ Ministry of Sustainable Development and Tourism, „Second National Report of Montenegro on the United Nations Framework Convention on Climate Change (UNFCCC)“, Government of Montenegro, 2014.

¹⁸⁶ As a country that is not part of Annex 1 as per the UN Framework Convention on Climate Change, than Montenegro had no obligation to reduce emissions, but in many occasions during international climate negotiations it expressed its attitude in terms of its intention to follow European goals

¹⁸⁷ European Commission, Green Paper: A 2030 framework for climate and energy policies, COM (2013) 169 final.

negro submitted **intended nationally determined contribution of greenhouse gas emissions reduction (INDC)** to the Secretariat of the UN Framework Convention on Climate Change (UNFCCC) as part of its preparation for the participation on the Conference of member parties of Framework Convention on Climate Change (UNFCCC) in Paris, on December 12, 2015 (COP 21). New global agreement on climate changes was reached and 177 countries signed it on April 22, 2016 in New York, and the same will enter into force after it is ratified by at least 55 countries that are jointly responsible for at least 55% of global greenhouse gas emissions¹⁸⁸. According to the new agreement, all contracting parties of the Convention have the obligation to reduce emissions up to certain level. According to INDC, until 2030 Montenegro obliged itself to reduce greenhouse gas emission for 30% in respect to 1990. That projection does not include CO₂ emission sinks from forestry, but the possibility to incorporate it later on was given, anyhow by the end of 2020 at latest. In that way Montenegro will continue to contribute to the reduction of global emissions in accordance with valid and future agreements, at international and EU level, still striving to achieve common goals of the European Union regarding climate changes.

Constant trend of GHG emission level reduction is noticeable in the last years, as well as increase of CO₂ emission sinks. **Share of renewable sources in final energy consumption** is already at the level of 29%, while national goal is set on 33% until 2020¹⁸⁹. Significant reductions of energy in-

tensity and GHG emissions were achieved, which demonstrate that the country is on a good way to achieve and exceed EU goals 20-20-20, if in the following period it does not make counterproductive development decisions, respectively if it implements policies that would compensate for spontaneous improvements registered in the last decade and ensure continuation of positive trends.

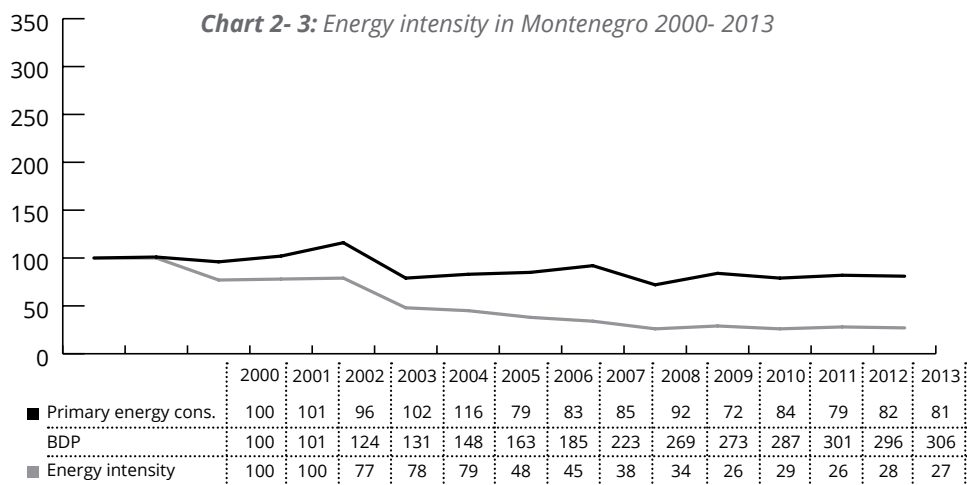
However, there are also disturbing signals, especially when it is about development plans. Projections of **energy efficiency** trend given in Energy Development Strategy (e.g. reduction of energy intensity for about 40% until 2030 in respect to 2010 – from 29.770 MJ to 17.692 MJ per thousand Euro of GDP expressed in Euro from 2000) will not be sufficient to bridge still large gap between Montenegro and European economy, and ensure that ambitious and progressive EU policies will be followed. If insufficiently ambitious national goals should prevail in the area of energy efficiency, aside from negative implications for the sustainability of energy sector it will contribute to missing other opportunities (such as energy cost reduction and competitiveness increase).

National Energy Strategy plans¹⁹⁰ and activities that are currently being implemented for starting up the construction of the new block of Thermal Power Plant in Pljevlja, should be harmonized with the needs of resource efficient economy, whilst environmental impacts are being brought to the lowest level possible and long-term goals of the EU energy and climate policy are being achieved (it basically

188 Until May 2016, 15 countries ratified this agreement

189 Data from Report on Millennium Development Goals in Montenegro 2010 – 2013

190 Including construction of new Thermal Power Plants using lignite with installed power of nearly 600 MW until 2030 and doubling of CO₂ emissions in energy production sector that would incur in case these plans are realized



means CO₂ emission elimination from energy sector until 2050). Also, national energy strategy plans and activities that are currently being implemented in *exploration and production of hydrocarbons* represent a particularly worrying factor in the context of reviewing the policies that should support transition to resource efficient economy whilst negative environmental impacts are being brought to the lowest level possible and long-term goals of EU energy and climate policy are being achieved, as well as energy sector greening. On the other hand, efforts to increase the share of **renewable sources** in the energy mix can intensify pressures on water resources in Montenegro and biodiversity, respectively on ecosystem services that depend on waters. For that reason, when making development decisions, it is very important to take into consideration and (in time) duly implement European policies on habitat and species preservation and good status of all waters maintenance. To other resources, as by the rule, insufficient attention is being dedicated even though their potential is substantial. With the improvement

of implementation procedures of appropriate measures and incentives, solar and wind energy and biomasses (aside from the energy from small hydro power plants on whose exploitation is being worked a lot in the last years) could have far more significant role in satisfying energy needs with appreciable less negative impacts on the environment in respect to thermal power plants using coal and big hydro power plants. Use of natural gas (even though it is still a fossil origin fuel) could also be a good transitional solution in the process of decarbonization of energy sector being that use of gas makes smaller contribution to greenhouse effect than other fossil fuels¹⁹¹.

Energy sector greening, primarily through energy efficiency increase and greater use of sustainable renewable energy sources, will generate a set of benefits, both in

¹⁹¹ According to UNDP, „National Human Development Report 2014, On our way towards Resource Efficient economy“, UNDP office in Montenegro, Podgorica, 2014, pp 49-53

economic and social domain (energy goals being reached, creation of new ones, green jobs and greening the existing ones), and in the domain of environmental protection and mitigation of climate changes, contributing at the same time to comfort increase and working and living condition improvement.

2.4.2.2. Agriculture

Development of agriculture is a significant sector from many points of view and it is in function of procuring stable and quality food offer, reducing trade deficit, encouraging development of other sectors (such as tourism), creating conditions for better life quality of rural population and similar. Agriculture is also recognized as one of priority sectors for greening the economy within the analysis done in the preparation process of Montenegro regarding participation at the Third Summit on Sustainable Development (Rio+20). Main opportunities for increasing resource efficiency in agriculture are technological improvements, knowledge and information sharing in terms of ways of soil fertility preservation, organic agriculture expanding, source of income diversification in rural areas and development of an efficient sector in food industry¹⁹². Data from the Statistical Office, MONSTAT demonstrate that agriculture and rural development participate in GDP with 8% (2014), as well as that in this sector on 48.870 households there are 98.341 employees for whom agriculture is basic or additional profession. Overall available land of agricultural husbandries covers an area of 309.240 ha and makes 22,8% of Montenegrin territory. The largest share in agricultural land belongs to perennial grasslands and pastures (223.131

ha or 72,15% of overall available land), while the share of arable land that is actually being used is only 5,6¹⁹³ (used infield/garden, used plough land, plough land, vineyard, orchards - plantation-like and extensive ones and nursery gardens). Due to insufficient offer of domestic food, great quantities of food products are being imported.

Unlike European, Montenegrin agriculture (seen as a whole) is not intensive, which contributes to preservation of resource quality and reduces pressures on the environment (with singular and limited examples of excessive pollution from agricultural activities). On the other hand, economically speaking it is inefficient and uncompetitive. Some of key barriers and inefficiencies that characterize agriculture at the current level of development are: fragmented husbandries and insufficient implementation of modern technologies in primary production and food processing; price non-competitiveness; disorganization and inexistence of fixed forms of horizontal and vertical connection among producers within production and processing processes; poor infrastructure in rural areas, and other.

Available data from the Statistical Office, MONSTAT (2014) regarding impacts of agriculture on the environment demonstrate that 83 tons of plant protection products are consumed per year. Use of pesticides in Montenegro is relatively stable and it is used only on arable land and agricultural crops (5,6% of entire used land).

Surfaces under organic production (data from Monteorganica for 2015) were covering 549,85 ha (0.18% of overall available land

¹⁹² Ibidem, pp. 53-54.

¹⁹³ Statistical Office, MONSTAT, Statistical yearbook ME, 2014.

for crop production), 140.409ha (45,45% of overall available land from which wild plants and forest fruits are collected) and 2.665,76 ha under grasslands and pastures (0,86% of overall available land). In addition to conventional ways of production, Montenegro should also direct itself towards development of agricultural and food products basing it on traditional ways of production, while procuring high quality standards, and these products can later on be marketed through services rendered in tourism. In other words, the priority is to meet the needs of domestic market for agricultural-food products that can be produced in Montenegro in continuity¹⁹⁴.

The Law on Agriculture and Rural Development¹⁹⁵ defines main goals of agriculture and rural development strategy: agricultural resources management in a long term sustainable manner, while preserving the environment; procurement of stabile offer of safe food, acceptable from the aspect of quality and prices; improvement of living standard of rural population and overall rural development, while preserving traditional values; strengthening of food producer competitiveness. Agriculture is a sector that can contribute to **greening the economy** from many aspects. Adequate agricultural policies and measures can stimulate development of rural economy in a way to contribute to the increase of employment and improvement of the quality of life (respectively reduction of poverty) in rural areas. Husbandries in rural areas represent the majority of overall number of husbandries in Montenegro

and mainly they face limited development possibilities. Significant number of these husbandries disposes of small agricultural land (73% of husbandries cover up to 2 ha of land). Aside from that, these husbandries are exposed to high income risk due to growing competition on domestic and foreign market, reduced employment possibilities and external income generating, and rural area devastation.

With the growth of agricultural production, dependency on food import is being reduced and positive impact on the development of other connected sectors is being achieved, while through promotion of adequate agricultural practices, preservation of natural capital can be ensured as well as sustainable use of resources. For the future economic development of rural areas, aside from investments into rural infrastructure, it is important to create conditions to open new jobs that are not necessarily connected to primary agricultural production. Among perspective branches, particularly significant one is tourism, being that significant part of rural areas of Montenegro has favorable natural and/or cultural-historical attributes necessary for the development of rural tourism (ethno villages, hiking, biking, gastronomic tourism, etc.). The potential for new employment lies in the possibility to market specific food products (e.g. organic agriculture products, controlled origin products, etc.) in catering and tourism.

Significant potential regarding greening the economy also lies in forestry sector. Creation of green jobs in forestry sector represents a chance to diversify rural economy and strengthen economic activities, especially in the northern part of the country. National forest inventory confirms that there are significant reserves of wood mass

194 Ministry of Agriculture and Rural Development, Agriculture Development Strategy 2015–2020, Government of Montenegro, 2015, p. 7.

195 Off. Gazette ME, no. 56/09, 18/11, 40/11, 34/14 and 1/15;

that can be given up for use, which indicates the need to develop efficient and sustainable forestry-based wood processing industry¹⁹⁶. Existence of local processing centers and local, regional and international market for wood products, opens possibilities for increasing of the level of finalization of these products. Green jobs in forestry can primarily be created through afforestation projects and sustainable resources management (respectfully through improvement of forest capabilities to bind CO₂)¹⁹⁷.

2.4.2.3. Tourism

How significant tourism is for Montenegrin economy is best reflected in data showing that income from tourism from 2006 to 2012 doubled, and in 2015 it was 801 million Euros. In 2015, Montenegro got visited by 1.713.109 people (12,9 % more than in 2014 and more than double in respect to entire Montenegrin population). According to assessments of the World Travel & Tourism Council (WTTC)¹⁹⁸, direct contribution of travel and tourism sector to gross domestic product in 2015 was 11,3% of GDP, with expected growth of 6,9% in 2016, therefore average annual growth of 5,6% in the period 2016–20126, when it is expected to reach the level of its share in GDP of 14,6%. However,

over 90% of tourist visits relates to coastal region and is mainly realized during short summer period (June–September). Ultimately seasonal character of tourism and dominant presence in coastal area increase environmental loads of this region. Tourism was relatively well regulated so far by **strategic documents**: Master Plan passed in 2001, Tourism Development Strategy until 2020 and Reform Agenda in the field of tourism from 2013. It can be concluded that tourism is one of the fields where development vision was defined from the very beginning, with clear orientation towards attracting foreign investments and forming a base for high-quality tourism. Projects that were implemented in the recent years, or are currently being realized, such as Porto Montenegro, Luštica Bay and Kumbor, represent concrete results that were obtained through creation of the favorable climate for investment attraction. Additional efforts need to be made in order to increase positive impact of investments on local communities, in which they are being implemented, affirming social responsible behavior and actions within local community.

Nevertheless, insufficient diversification of tourist product, ultimately seasonal character and dominant presence in coastal area, increase pressures on the environmental and contribute to unequal regional development. Aside from the fact that it is mostly based on the use of natural resources (space, water, fuel, electric energy and food), tourist activity also means creation of substantial quantities of waste and pollution¹⁹⁹. Attractiveness of coastal area in terms of tour-

¹⁹⁶ Together with forestry, wood processing industry currently makes hardly 1,5% of national GDP

¹⁹⁷ Ministry of Sustainable Development and Tourism, Greening of Montenegrin economy, Analytic document on challenges and possibilities for greening the economy, basis for drafting national Platform for Rio+20, Government of Montenegro, June 6, 2012

¹⁹⁸ For more details see "Travel & Tourism" Economic Impact 2016 Montenegro, World Travel & Tourism Council

¹⁹⁹ UNDP, „National Human Development Report 2014 On our way towards Resource Efficient economy“, UNDP office in Montenegro, Podgorica, 2014.

ism development contributed to increased urbanization and often linear construction alongside coastal line, respectively to growing pressures on the existing infrastructure. What also contributed to the creation of these circumstances are inadequately regulated spatial planning sector, lack of quantitative indicators of space usage, as well as rather often declarative reference to the principles of environmental protection. Additionally, in spite of the data demonstrating that the number of tourists is gradually growing from year to year, there are no contents that will motivate them to stay longer in certain area. That is the reason why *Reform Agenda in the field of tourism (2013)* insists on diversification of tourist offer and significance of the initiative of small and medium enterprises in order to generate income and improve tourism sector.

In the context of green economy and sustainable development principles, other possibilities are recognized in further development of tourism based on the principle of harmonization of economic development interests and needs to protect the environment and preserve natural resources, as well as adapt and mitigate negative consequences of climate changes²⁰⁰. **Sustainable tourism development** requires appreciation of **principles**: a) optimal use of natural resources through implementation of policies and measures aiming at mitigating

climate changes effect on economic development, enabling reduction of greenhouse gas emission and passing onto low-carbon economy, as well as reducing vulnerability of natural and created systems in terms of real and expected effects of climate changes; b) respect of socio-cultural authenticity of the community, preservation of cultural heritage and traditional values; and c) ensuring sustainable, long-term economic business activities, with the aim to achieve socio-economic benefits for the citizens. In that sense, destination-wise planning and development strategies are first steps towards tourism “greening”. With the help of incentive plans and education systems it is necessary to motivate local population to start with entrepreneurial activities. Cluster formation could significantly help in transfer of experiences from good practice²⁰¹. Also, connection of tourism sector with production of organic agricultural products and other traditional local specialties should be enabled so that an overall tourist offer could be formed.

In further tourism development, particular significance will be given to **protected areas of nature**. Interaction of tourist offer and ecosystem services in protected areas of nature should be bidirectional – tourism development should enable sustainable valorization of nature and landscape, cultural heritage and tradition, while managers of protected areas of nature should, through adoption and implementation of manage-

²⁰⁰ Based on these principles, it is particularly advisable to develop tourism in less developed northern and rural areas, but also as ecotourism, e.g. in the area of Boka Bay (for more details see: Ministry of Sustainable Development and Tourism, Integrated Coastal Zone Management Program of Montenegro, Ecotourism for Local Development in Boka Kotorska (Montenegro), feasibility study, CAMP Montenegro, July 2014).

²⁰¹ Ministry of Agriculture and Rural Development is implementing diversification support measures in agricultural husbandries, by offering grants for adaptation of accommodation capacities and putting them into function of tourism development and creating additional income in rural areas

ment plans and mobilization of financial resources from different sources, improve possibilities of sustainable valorization of ecosystem services.

When intersectoral integration is concerned, bidirectional interdependency of climate changes and tourism sector should particularly be taken into consideration, being that this sector is a significant producer of greenhouse gases, while climate changes have back-effect on it. Namely, climate changes impacts on tourism must be taken into consideration being that they are already being reflected on the income from tourism. Data from the study Technology Needs Assessment (TNA) indicate that, due to climate changes, we can expect reduction of income ranging from 33 to 68 million € per year. At the same time, tourism sector substantially contributes to the **increase of carbon footprint and greenhouse gas emissions** - directly or indirectly through services of accommodation, transport, food consumption and other.

When it comes to natural materials, tourism sector is the biggest consumer of food, fossil fuels (oil and gas), metal ores (lasting products) and metalloids (construction aggregates). Growth of gross added value in tourism is in direct correlation with the increase of DMC indicators. In view of two big tourist projects (Porto Novi and Luštica), as well infrastructural projects and construction of Bar-Boljare highway, substantial increase of consumption of these types of materials is expected²⁰².

202 ISSP, Recommendation translation of UNDP, „National Human Development Report 2014 (Scenario 4) into National Strategy for Sustainable Development, 2015.

Particularly significant are possibilities of **low-carbon tourism development** and ecologically responsible relation and practice of tourism sector in respect to the environment²⁰³. Tourism is, aside from agriculture and energy, also an economic sector with the most significant possibilities in terms of **greening the economy and resource efficiency increasing**.

2.4.2.4. Industry and entrepreneurship

The structure of Montenegrin economy significantly changed in the last 15 years. This change is above all reflected in the **increase of the share of services in overall economic activity on the account of reduction of the share of industry and agriculture**. Thus in the period from 2000 until 2014 the share of agriculture in DNP was reduced from 11% to 8%, while the share of industry was reduced from 17% to 11,5%. According to Development Strategy of processing industry of Montenegro 2014-2018²⁰⁴, the area of **industry** is, even with its low productivity and poor competitiveness, still one of the most significant areas of our economy, especially because in this area we have the biggest enterprises of Montenegro whose multiplicative effect on overall socio-economic situation is enormous. The Strategy emphasizes how significant development potential of processing industry is and regardless of changes in terms of shares in overall industry over time, it is still the most significant

203 Some of these practices are already integrated into Rulebook on types, minimal-technical requirements and categorization of catering hospitality facilities (additional points are gained if alternative sources of energy are used and similar)

204 Ministry of Economy, Development Strategy of processing industry 2014-2018, 2014

and the biggest industrial sector in Montenegro as per its volume, and as such it has great significance for employment, GDP and export of overall economy. In the document it is also assessed that effectiveness and competitiveness of processing industry in the coming period will depend on continuous implementation of innovations in production processes and management processes. In order to make improvements in industrial sector (as a whole and especially processing industry²⁰⁵) it is necessary to have:

- modernization of the existing and development of new industry that will above all be based on new knowledge and innovations, by using domestic resources and respecting environmental protection standards;
- modernization of production, increase of the level of production finalization, introduction of new technologies, quality system, usage of harmonized criteria, respectively basing measurements on metrological traceability and environmental management, together with changes and improvements in production assortment;

²⁰⁵ In creation of Gross Added Value industrial sector contributes with 13,5%, out of which the contribution of processing industry sector is 4,8%. When employment is concerned, processing industry sector employed 6,9% of total number of employees in Montenegro in 2012, while total share of extraction of minerals and rocks, electric energy supply and water supply sectors was 5,6%. Processing industry sector is the most significant part of industrial production and covers enterprises that deal with mechanical, physical and chemical transformation of materials, substances or components into new products.

- stimulative measures for investments in cleaner industry and increase of energy efficiency;
- development of entrepreneurship, small and medium enterprises, technological and industrial clusters, etc.

Recent study of the European Commission Environment Directorate-General²⁰⁶ demonstrated that energy prices and emission permits (i.e. emission permits with which it is being traded on the market) made a strong pressure on energy intensive industries (e.g. production of cement and copper) so they could improve their efficiency. Policies and regulations in the area of air, water and waste had similar effects. The study also assesses that significant growth of employment cannot be expected in these (conventional) industries unlike in new ones (in areas such as energy efficiency and environmental protection). The results of this analysis are also relevant for Montenegro where energy intensive industries (production of aluminum and steel) can hardly compete with EU producers that operate in stricter regulatory environment and which substantially improved their level of efficiency. Prospects for new employment in these industries are minimal.

For industrial sector in Montenegro it is also important to gradually adopt and implement EU policies regarding products that, among other things, include (within life expectancy assessment) optimization of technological processes in terms of waste generating reduction, efficient use of inputs and reduced creation of by-products, reduction of ener-

²⁰⁶ Ecorys, The number of Jobs dependent on the Environment and Resource Efficiency Improvements, report prepared for DG Environment, 2012

gy and water losses, lower GHG emissions, etc.²⁰⁷.

With the aim to increase industrial productivity, stimulate entrepreneurship and encourage innovations, Montenegro prepared the document **Industrial policy of Montenegro until 2020**²⁰⁸ where it has defined strategic development directions, starting from the integrated concept of industrial policy whose focus is bigger competitiveness of Montenegrin economy as a whole. In that context, industrial policy has the tendency to eliminate structural and sectoral unbalances, as well as to overcome the problem of narrow production basis in accordance with the principles of sustainable development and resource efficiency. Even though Montenegrin economy structure is mainly within service sector, it is necessary to revitalize certain segments of industry by using new sources of economic growth, together with encouraging resource efficiency.

Priority sectors with growth potential – sectors that are recognized as those with growth potential and which can be seen as promoters of industrial development with potentials for improvement of competitiveness on domestic market and strong export potentials are: processing industry – food industry²⁰⁹, wood, metal and pharmaceutical

industry, energy and tourism.

Sectors that support industrial development – sectors that have growth potential and should contribute to modern industrial development are: transport, ICT and creative industries, business services sector and construction.

The number of **small and medium enterprises** (SME) in Montenegro, in 2015, according to the data of Tax Administration, was 25.918 with over 150.000 employees. SME make 99,6% of total number of enterprises in Montenegro and significantly contribute to the economic growth and development and competitiveness of our economy, new employment, respectively introduction of green economy in Montenegro.

Finally, development of **green entrepreneurship**²¹⁰ is significant for the opening of green jobs and achieving of higher level of private sector involvement in greening the economy in Montenegro that can generate new employment and contribute to the development of local communities i.e. overcome development imbalances. Possibilities for the development of green entrepreneurship exist in the area of energy, waste management, ecological agriculture, ecotourism, recycling, eco-production and other activities.

²⁰⁷ According to: UNDP, „National Human Development Report 2014 – On our way towards Resource Efficient economy“, UNDP office in Montenegro, Podgorica, 2014, p. 56.

²⁰⁸ Ministry of Economy, Industrial policy of Montenegro until 2020, July 2015.

²⁰⁹ According to the existing projections, it is expected that contribution of processing industry to GDP will grow from 7% in 2010 to 11-15% until 2030 in areas that currently have the lowest share in industrial production (lasting products).

²¹⁰ Entrepreneurship does not only relate to economy. It is connected to all aspects of human behavior and activities. Etymologically speaking, entrepreneurship means capability to launch some activities with the task to achieve certain goal. Today, entrepreneurship is becoming specific conditional philosophy, as a set of suitable functions and different abilities of people, directed towards connection and coordination of production factors, in order to make profit (Ministry of Economy, Development strategy of SME 2011-2015, Government of Montenegro, 2015)

2.4.2.5. Construction and housing

In the middle of previous decade **construction** was one of the sectors with the highest growing rate. In 2008 this sector represented 6,2% of overall Montenegrin economy²¹¹, and in 2014 its share was 4,2% of gross added value. Significance of construction is reflected in the fact that it stimulates growth in other sectors such as production of construction materials, services, financial sector, real estate market and similar. *Montenegro Development Directions 2015–2018* identified development goals in the area of construction and housing that among other things include improvement of spatial planning, upgrading of the quality of construction works and use of sustainable construction products, as well as rising of standards in terms of energy efficiency and greater use of energy from renewable sources in apartment buildings. Development directions give base and upgrade goals set by the Civil Engineering Development Strategy and Residential Strategy.

Energy consumption in residential buildings, especially the one used for heating and cooling, is a very important issue of European policies that since 2010 is regulated by revised Energy Performance of Buildings Directive. Aside from the obligation to implement minimal requirements in terms of energy performances of old and new buildings, this Directive requires that until 2012 all new buildings in the EU are built in a way to have their emissions near zero level. Cost-wise effective potential for energy saving in buildings is estimated to be 65 Mtoe

(mega tons oil equivalent) until 2020, which is nearly sixty times bigger than overall domestic gross consumption of Montenegro in 2011. Improvement of the existing housing stock in the EU is planned through preparation of the Strategy for Energy Renovation of Buildings in accordance with Energy Efficiency Directive from 2012.

Significant potential for energy saving also exists in construction and housing sector in Montenegro²¹². Even though there is no precise data on the condition of thermal insulation of housing stock, it is estimated that 70% of residential facilities require adaptation so as to increase energy efficiency. Assessment is based on the fact that substantial part of total number of about 316.000 apartments is situated in apartment buildings constructed during the 1960s and 1970s, which are characterized by disrepair and deterioration of external constructions – facades and (flat) roofs, as well as deterioration of home installations²¹³. Analysis done by UNDO indi-

²¹¹ Ministry of Sustainable Development and Tourism, Civil Engineering Development Strategy in Montenegro until 2020, Government of Montenegro, 2010

²¹² Results of UNEP/ UNDP study (2012) demonstrate that in order to increase energy efficiency in construction sector for 12% until 2020 we would need investments in the amount of 32 million €, which would have as a result saving of 11,8% in energy consumption, avoided costs of over 60 million € and reduction of GHG emission of over 16%. Cost of achieving ambitious goals – energy efficiency increase for 20% until 2020 in construction and housing sector would be 57 million €, which would result in saving in the amount of 19,2% in energy consumption, avoided costs of over 100 million €, and reduction of GHG emission of over 26%.

²¹³ According to the data from the National Residential Strategy of Montenegro 2011–2020, (Ministry of Sustainable Development and Tourism, 2011), one of the basic characteristics of dwelling stock is their relatively old age (just about 30% was constructed in the last 30 years).

cated that implementation in phases (during 10 year period) of energy efficiency measures (adequate insulation of external walls, replacement of windows, doors, roofs and floor insulation) in all illegally constructed facilities would contribute to GDP increase of 1,5% per year.

Ways of achieving **energy saving in buildings** include introducing energy efficient projecting and construction, building certification, use of construction materials and products with which energy characteristics of facilities are improved, adequate maintenance and reconstruction of facilities, etc. Further incentives are necessary in order to encourage positive trends in this sector (such as growing number application of insulation in new and existing buildings) and create the basis for achieving ambitious EU goals and standards.

Great quantity of energy can also be preserved through adequate planning of **infrastructure in cities**. Even though principles and requirements of energy efficiency are established by relevant regulations, existing practice in terms of planning and construction in Montenegro is still without adequate solution for their integration in spatial and urban plans. **Sustainable cities** are singled out as one of key topics in the document *Future the way we want it* (adopted on the Third World Summit on Sustainable Development – Rio+20). With that, it becomes binding for Montenegro to introduce this concept into its systems of spatial planning and facility construction.

Aside from energy saving, recycling of construction waste, use of ecological materials (satisfying sustainability criteria) and improved facility projecting are very important for resource efficiency in civil engineering.

Energy efficient construction refers to the use of materials and equipment, then to the process of construction and later use of spaces with which energy losses are brought to the lowest possible extent, and at the same time it maintains or improves the comfort of the users and positively affects the environment. Energy efficiency improvement of buildings can be implemented by:

- introduction of strict rules of energy efficient projecting and construction, and building certification; here we also have great potential for “greening” of the existing jobs (projectors, construction workers), as well as for creating of new green jobs (energy auditors);
- use of construction materials and products with which energy characteristics of facilities are improved;
- maintenance and reconstruction of facilities and energy management in facilities (energy management); in this segment also, there is evident space to create new green jobs²¹⁴.

As it was stated in the Civil Engineering Development Strategy until 2020, it is necessary to further develop this sector in the context of Montenegrin integration into the unique European market, by appreciating sustainable development principles. The vision of construction sector development in Montenegro means integration into European construction market by positioning itself on competitiveness scale among four

²¹⁴ Ministry of Sustainable Development and Tourism, Montenegrin greening the economy, Analytic document on challenges and possibilities for greening the economy, basis for drafting National Platform for Rio+20, Government of Montenegro, June 6, 2012;

leading countries in the region through innovative, knowledge-based and high technologically organized construction sector²¹⁵.

2.4.2.6. Transportation

Safe, modern and efficient traffic system represents a presumption of entire economic, social and territorial cohesion of one country. At the same time, one of key priorities in overall development of traffic system in Montenegro are requirements for **safety improvement and security in all aspects of traffic** with the aim to preserve human lives and property (regular maintenance of the existing infrastructure, investments in new traffic capacities, by respecting security and safety standards, strengthening administrative capacities, control, traffic monitoring by implementing the criteria that are harmonized with metrological regulations, e.g. radars and ethylometers, as well as trainings and public campaigns). Within specified context, **traffic sector in Montenegro** is facing significant difficulties in its attempt to ensure adequate basis for the mobility of people, goods and services within the country and towards neighboring countries. Undeveloped road network and inexistence of highways, problems of insufficiently developed rail infrastructure and end-of-life rail vehicles, insufficient efficiency of traffic system and lack of implementation of modern approaches in traffic management, are just a part of the list of problems identified in this sector. Terrain configuration itself causes high maintenance costs in the sector of rail and road traffic and development

of new infrastructure. Insufficient level of infrastructure development in terms of sea traffic significantly contributes to sea pollution.

Share of **rail traffic** in total number of travelled passenger kilometers in Montenegro decreased in the period 2000–2012 from 52% to 36%, meaning that in the last couple of years **road traffic** has a dominant role in transport of passengers, which increases loads on the environment. Trends in **cargo traffic** are similar to passenger traffic, with somewhat less noticeable reduction of rail traffic share. Total number of motor vehicles increased from about 128.000 in 2000 to 198.772 in 2015. Aside from the above stated, near 98% of vehicles in all categories were older than 10 years, 56% of vehicles uses oil as motor fuel, 43% gasoline, and very low number uses liquid petroleum gas.²¹⁶

With the share of about 27% of overall **final energy consumption** (2013), traffic sector in Montenegro represents a significant consumer. Great quantities of energy are consumed in traffic which greatly contributes to climate changes and leads to air pollution and connected negative impacts on human health and ecosystem condition. Construction of traffic infrastructure also causes negative impacts on space, water and biodiversity. Imported fossil fuels (gasoline, diesel, kerosene) represent 99% of overall consumption, while remaining percentage is electric energy consumption. Road traffic is responsible for about 88% of final consumption in traffic sector²¹⁷ and represents

²¹⁵ Ministry of Sustainable Development and Tourism, Civil Engineering Development Strategy until 2020, Government of Montenegro, 2009.

²¹⁶ Environmental Protection Agency, Indicator-based State of the Environment Report, 2015.

²¹⁷ Rail traffic participates with about 2%, and air and sea traffic with the remaining 10%.

the priority in terms of optimization and savings.

Modern and efficient traffic system can significantly contribute to **resource efficiency**, competitiveness and sustainability. Results of UNEP/UNDP study (2012) indicate that investments in the amount of 34,2 million € into energy efficiency in traffic (in order to achieve an increase of 12% until 2020) would result in saving of energy-generating product consumption in the amount of 8,6%, avoided costs in the amount of over 43 million € and reduction of GHG emission of over 9%. Cost of achieving ambitious goals – increase of energy efficiency for 20% until 2020 in traffic sector would be 82 million €, which would lead to savings of 12,5% in energy consumption, avoided cost in the amount of 67 million €, and reduction of GHG emissions of over 14%.

Some of the most important measures of the European **sustainable traffic** policy include technological improvements of vehicles and application of alternative energy sources²¹⁸, by facilitating tax policy, promoting public transportation and non-motorized means of transportation and similar. Furthermore, in accordance with European policies regarding sustainable urban mobility, cities need to provide **multimodal traffic system** and to deal with intermodal integrations as the main component of every urban mobility strategy, in accordance with sustainable development policies. Stated measures should also be priorities in Montenegro, in

the context of achieving resource efficiency goals as well as significant reduction of air-pollution and improvement of the quality of life of citizens and the quality of tourist offer. This above all means efficient public transportation with which we would significantly reduce the use of vehicles in cities and thus reduce crowds, especially in coastal area during tourist season (Kotor, Budva). The aim is also to redirect transport of (especially) cargo to rail and water²¹⁹. In order to develop traffic system in terms of resource efficiency (respectively sustainable traffic) integrated approach will be needed, as well as significant efforts and means so as to modernize transportation stock and thus develop traffic infrastructure. Significant incentives are needed for faster introduction of vehicles with low emissions and new technologies/alternative fuels, better control of fuel quality, promotion of environment-friendly modes of transportation, and application of instruments that bring negative impacts of traffic on the environment to the lowest possible level (including standards, impact assessments, economic instruments and other).

2.4.2.7. Coastal area resources management

Coastal area that includes continental part and marine ecosystem is one of the most

²¹⁸ Currently the EU is supporting three main alternative kinds of fuels and motor technologies that will be developed in the period until 2020, more precisely: a) biofuels, liquid and gas; b) hydrogen and fuel cells; and c) electric batteries and hybrid vehicles with electric motors.

²¹⁹ On the other hand, development scenario that anticipates growth of industrial production means accelerated growth of cargo transport. Together with cargo transport of domestic products, we will have growth in transit traffic of goods. With higher living standards, number of private cars will also be doubled, which despite the expected meaningful improvement of specific fuel consumption of vehicles means even more than doubled energy consumption in transport.

valuable resources of Montenegro and huge potential for innovations and growth. The most important economic activities in coastal area of Montenegro are: tourism, maritime affairs, shipbuilding, fishery and aquaculture. In the EU, “blue economy” employs about 5,4 million people and generates gross added value of nearly 500 billion € per year. For further sea and land resource-based development of the coastal zone of Montenegro priorities are also: biotechnology, exploitation of living and non-living components of marine habitat for pharmaceutical purposes, exploitation of minerals, use of renewable energy sources potential and other²²⁰.

According to the Law on Marine Fisheries and Mariculture (Off. Gazette ME 56/09 and 47/1) and the Law of the Sea (Off. Gazette ME 17/07), the marine fishery in Montenegro includes the part of coastal sea and epicontinental strip of Montenegro that are within Montenegrin borders. Exactly in this part of Montenegrin territory blue economy and development programs have their development chance in terms of **tourism, maritime economy, fishery and mariculture, then exploitation of other natural resources**.

In period so far, development of tourism, maritime economy, exploitation of **mineral raw materials** (sand and pebble), with somewhat lower share of agriculture and fishery, contributed to unsustainable exploitation of non-renewable natural resources of the coastal area (thereon primarily of space and landscape values). As a consequence of the lack of integrated management of coastal area, key sources of

pressures on resources and environmental quality of coastal area are: exaggerated and accelerated urbanization due to construction of tourist capacities (followed by dispersed construction, unsatisfactory quality of constructed area and conversion of agricultural land into urbanized), overfishing, inadequate waste and waste water treatment ashore, and inadequate treatment of pollutions from vessels, as well as disposal of solid and oily waste, ballast waters in ports and marinas, as well as other infrastructures of maritime economy. Contribution to unsustainability was also given by the lack of quantitative indicators that would enable evaluation of carrying capacity of the land and sea (respectively capability of the space to host certain number of tourists), as well as by inadequate implementation of strategic and project based assessments of impacts on the environment. The consequence of this was having endangered habitats and species, thus natural balance in general. Such situation is also accompanied by **inadequate institutional and legal framework** with large number of poorly coordinated competent institutions that are often conflicted or whose competences overlap, or there is misunderstanding in terms of competencies and inadequate implementation of legal provisions. Frequently, legal provisions do not contain penal provisions, and those positive provisions that are based on the best international practice (area of environmental protection) are not being implemented.

Key activities planned by previous NSSD with the aim to preserve marine resource (including coastal area), are being realized through the implementation of National Strategy for Integrated Coastal Zone Management, in accordance with the provisions of Barcelona Convention and its protocols,

220 UNDP, „National Human Development Report 2014 On our way towards Resource Efficient economy“, UNDP office in Montenegro, Podgorica, 2014.

including the Protocol on Integrated Coastal Zone Management in the Mediterranean. Also, drafting of Spatial Plan of Special Purpose for Coastal Zone of Montenegro that will mitigate pressures of unplanned development, will contribute to quality development of tourist and nautical contents and at large extent ensure protection of natural landscape and ecologically valuable areas. Efficient implementation of instruments and mechanisms of **integrated coastal zone management** is necessary in order to reduce pollution, protect biodiversity, valuable areas of nature and cultural heritage, reach coordination among different sectors and users, and thus harmonize development and protection needs. As it is stated in UNDP National Human Development Report from 2014, integrated management of marine resources and implementation of instruments such as marine spatial planning will create possibilities to adequately use the potential for blue growth²²¹ and to have these natural resources contribute in a more significant manner to efficient and sustainable economy in Montenegro.

Fishery is a traditional economy branch in Montenegro, present in fishery areas of Adriatic Sea and Skadar Lake littoral. Even though it has important sociological and cultural role, share of fishery in GDP is only 0,5% and number of employees in this sector is rela-

tively small²²². Fish consumption in Montenegro is among the lowest in Europe, however, for that reason exactly and development of tourism sector, fishery has a significant potential in terms of development. Generally, fish resources of the Mediterranean, thus of the Adriatic, are significantly reduced, so preservation policies are already being drafted. Even though Montenegrin fisherman record modest catch of marine fish at annual level (700–800 t per year), due to inexistent integrated monitoring and control on the sea, some unauthorized presence of foreign fishing boats were evidenced in Montenegrin territorial waters, as well as examples of illegal and unregistered fishing from domestic fisherman²²³. Similar situation is with **mussel cultivation**. Namely, even though official data indicate that the level of mussel and fish cultivation is relatively low, some examples of environmental pressures and unsustainable fishing have been registered²²⁴. Unsustainability in fishery sector and **mariculture** is caused by relatively small and outdated fleet, inexistent organized repurchase or fish processing, inexistent fishery port, as well as inexistent point of first landing and point of first sale. Together with the above stated, one of the main reasons for insufficient development of mariculture sector is inexistence of new locations for cultivation, especially at the open sea. In order to solve these problems, spatial planning of sea purpose has the most significant role in the process of location selection with the aim to solve possible conflicts with other activities done at the sea.

²²¹ Within its integrated maritime policy, the EU drafted a long-term strategy named „Blue growth“ in order to support sustainable growth in different maritime sectors and activities connected to the sea. Potential significance of marine ecosystem of Montenegro is best seen through assessed value of benefits from marine ecosystem services in the Mediterranean, which in 2015 was estimated to be over 26 billion Euros. For more details see: http://ec.europa.eu/maritimeaffairs/policy/blue_growth/

²²² Only 400 employees, excluding mariculture and fish processing sector

²²³ Ministry of Sustainable Development and Tourism, National Strategy for Integrated Coastal Zone Management, NS IUOP, Government of Montenegro, June 2015

²²⁴ Ibidem

In the area of **sea traffic** Montenegro is registering small number of active companies and reduction in quantities of cargo and number of transported passengers. Even though in the recent years it is being renewed, maritime fleet is still rather modest. Port of Bar is the most significant transit center in the region and it is seen as the gate of the Adriatic. However, due to inadequate connection with the hinterland, it loses its race with competitive ports in the region (Ploče and Drač)²²⁵. Ports of Zelenika and Kotor also represent important maritime centers in Boka Bay. Recently constructed mole for mega-yachts Porto Montenegro became the symbol of high quality tourism development in Montenegro. **Shipyard** Bijela is equipped for reparation and reconstruction of all types of vessels with capacities up to 120.000 DWT, whereas privatization is planned with possible alteration of basic activity into repair of mega-yachts which would be complementary to the existing services rendered by Porto Montenegro. Both ports and Shipyard Bijela produce significant pressures on the environment in coastal area.

²²⁵ With recent privatization of JSC Container terminal and general cargo that plans significant investments in the following couple of years, with planned reconstruction of railway and construction of highway, port of Bar has the chance to use its natural potentials. However, any further postponement of planned investments jeopardize resource valorization given the strong competitiveness in the surroundings.

2.5. Governance for sustainable development

Even with expressed political decision in terms of sustainable development of the society and established institutional framework necessary for the functioning of management system for sustainable development, in Montenegro, as well as in the majority of UN member states, integration of the issues regarding poverty reduction, human rights and environmental protection, as well as other priority issues from the area of social development and sustainable management of natural, social and human resources, into frameworks of economic development plans are still main challenges on the way of reaching national development sustainability. However, in respect to other forms of integration of sustainable development pillars, integration of environmental protection issues and sustainable use of natural resources issues are still significantly behind. Overview of national reports²²⁶ on sustainable development policies implementation confirms that states have not positioned sustainable development priorities as key elements of economic growth and development, but instead it is expected from sustainable development not to obstruct economic growth, whereas environmental protection isn't still seen as a precondition of long-term sustainable economic growth and development.

²²⁶ UN, Synthetic overview of national reports on the implementation of sustainable development policy prepared within participation in Rio+20 Summit, 2012.

2.5.1. Establishment of institutional and strategic framework for sustainable development

With the constitution from 1992, then the Constitution from 2007, Montenegro opted for the development based on sustainable development principles. Constitutional decision was followed by a set of activities directed towards the establishment of institutional and strategic frameworks for sustainable development. With the aim to establish the platform for the achievement of decision on ecological state, in 1997 in cooperation with the UN University for Peace and Development, drafting of 14 base studies and comprehensive documents named "Development directions of Montenegro as an ecological state" was initiated, and finished in 2001. At the same time, this document represented national response to goals set by Agenda 21. After political circumstances were stabilized and European prospects opened to the countries of Southeastern Europe, Montenegro made a significant step forward in terms of the establishment of sustainable development national policy. In the period from 2002 until now certain progress was achieved in terms of establishment of institutional and legislative framework aiming at the increase of the efficiency of governance system for sustainable development. After our participation at the Summit on Sustainable Development in Johannesburg, in 2002 **National Council for Sustainable Development** was constituted as advisory body of the Government of Montenegro for the implementation of sustainable development policy, while the ministry responsible for environmental protection was in charge for implementation of sustainable development policy. In the period from 2002, the Council was presided by the Prime Minister, and from 2013 by the Pres-

ident of the State. From 2006–2011 we have had an Office for Sustainable Development established with the support of UNDP and it was in charge of administrative and technical support to National Council within Government General Secretariat. In June 2011 the Office for Sustainable Development was integrated into the Ministry of Sustainable Development and Tourism and continued to function as Department for the support of National Council for Sustainable Development, respectively from September 2015 as Department for Coastal Zone Sustainable Development and Integrated Coastal Zone Management.

At the same time as we initiated the realization of sustainable development project, in 2005 we initiated drafting process of National Strategy for Sustainable Development. The Strategy absorbed the most significant decisions from national and European documents, and it was drafted in cooperation with the Mediterranean Commission for Sustainable Development.

Civil sector actively participated in the activities of National Council through the Forum of ecological **non-governmental organizations**, while considering the most important issues National Council dealt with. NGOs expressed its assessments and propositions and directly participated in National Council's activities. Important incentive for the improvement of relations between governmental and non-governmental sector was signing of the Memorandum of cooperation between the Ministry of Spatial Planning and Environment with ecological non-governmental organizations and election of a representative of non-governmental sector for vice president of National Council for Sustainable Development in April 2011²²⁷.

Out of 23 **local self-governments** in Montenegro, only three municipalities – Podgorica²²⁸, Bijelo Polje and Mojkovac have in their institutional system defined organizational units – secretariats for spatial planning and sustainable development with their assignments in terms of implementation of sustainable development policy. In April 2011, the municipality of Danilovgrad constituted its own local council for sustainable development and adopted the Sustainable Development Strategy with Action plan for the period until 2018. In forthcoming period strengthening of capacities at local level should be enabled by establishing a council for sustainable development and by harmonizing municipal strategic development plans with the NSSD, respectively by adopting local umbrella strategic documents for sustainable development with which all other singular plans and programs need to be harmonized.

During preparation for the Rio+20 Summit, answers to mutually contrasted development directions were sought at international level. Final document of the Summit gives a quality, but also a very ambitious and demanding agenda. For that reason, as we are approaching the implementation of 2030 Agenda for Sustainable Development, it is necessary to understand how to, in national context, procure elimination of registered unsustainable development trends

and insufficiently functional governance system for sustainable development. At the same time, in the period after the Third Earth Summit on Sustainable Development (Rio+20) we are witnesses of significant progress in terms of strengthening of international institutional framework for the implementation of sustainable development policy, primarily through establishment and function of **High-level Political Forum**. Restructured institutional framework should enable implementation of Sustainable Development Goals until 2030. In national context also, we made progress in terms of establishment of institutional frameworks for sustainable development. Jurisdictions of National Council for Sustainable Development were expanded in 2013 in terms of advisory support to the Government of Montenegro in implementation of national policy in the area of climate changes, given its priority global significance, as well as significance in the process of Montenegrin integration into the EU. Then in 2015 it was expanded to implementation of the policy of integrated coastal zone management given the significance of this region for overall economic growth and development of Montenegrin society. Composition and functions of the National Council enable its functioning in the context of:

- strengthening inter-sectoral coordination among departments in the Government of Montenegro with the aim to achieve compliance of public policies with sustainable development policy;
- encouraging cooperation of competent national and local authorities with the aim to achieve compliance of public
- policies with sustainable development policy and relevant policies at local level of acting;

opment, Analysis of achievements and challenges of an ecological state, 20 years of ecological state of Montenegro, 2011.

228 The Capital city, within the Secretariat for Spatial Planning and Environmental Protection, systematized the Sector for Environmental Protection and Sustainable Development, as competent body for the implementation of sustainable development policy at the level of the capital.

- initializing more intense participation of business sector in implementation of public policies;
- participation of non-governmental sector in shaping and harmonizing public policies with sustainable development goals.

One of principal obstacles to faster progress in achieving sustainable development goals in Montenegro²²⁹ is **unsatisfactory level of implementation of laws, policies and strategies**. There is a great discrepancy among obligations arising from passed regulations and strategies and their implementation in practice, which is a consequence of many factors (change of habits and relations of competent authorities, lack of adequate institutional framework, etc.)²³⁰. Aside from that, level of harmonization among sectoral strategies is not always sufficient, and the level of environmental integration into economic/sectoral policies is, despite certain progress, at a rather low level. Problems are also recognized in inadequate assessments and lack of funds necessary for the implementation, insufficiently developed monitoring and progress assessment system and similar. When it is about cooperation and partnership among public actors based on the principles of transparency and participation, there are needs and space to significantly improve the practice regarding achievement of sustainability of development. Institutional framework and integrated planning also should be improved, and capacities (human, technical and financial)

of public sector (especially in local government and institutions) should be brought to a much higher level. Development of capacities is also necessary in scientific and research institutions. The role of civil sector should be strengthened by enabling substantial participation in the process of policy creation and decision making. Private sector, even with certain positive examples during recent years, remains insufficiently involved in accomplishment of the goals of sustainability, therefore there is the need to strengthen its role in the process of greening the economy through realization of projects and programs within green entrepreneurship, sustainable consumption and production and corporative social responsibility, as well as through development of private-public partnerships.

Aside from the stated, in the center of discrepancies of expressed political decision and results in terms of sustainable development policy implementation we have **problems of unsatisfactory level of implementation of priority programs and actions**. Existence of the gap between obligations towards sustainable development and implementation of policies and programs of sustainable development, respectively achievement of challenges from the aspect of integrations, inclusion and coherence is evident. Screening of the success in implementation of NSSD Action plan in the period 2007-2012 indicate solid results with a share of implemented measures of 53%, whereas the area of the environment is to certain extent behind in respect to performances in the area of economy, and somewhat less in respect to the sphere of social development. Even though this result coincides with aggravating circumstances the society faced in transition period of entire socio-economic ambience, it can be con-

229 National Council for Sustainable Development, Analysis of achievements and challenges of an ecological state, 20 years of ecological state of Montenegro, 2011.

230 Ibidem.

cluded that unsustainable development trends are still present. Translation of sustainable development principles and goals into implementable efficient actions based on the integration of economic, social and ecological pillar, respectively on ecologically sustainable and socially equitable economic growth, is still generating numerous problems. Substitution of fragmented approach to inclusive processes that put together numerous subjects at horizontal and vertical level of the organization of governance system for sustainable development, has key significance for the efficacy of implementation of confirmed political will and functionality of good governance for sustainable development. For that reason central issues of sustainable development in the forthcoming period are strengthening of good governance, establishing and defining complex responsibility mechanism and sustainable and mutually connected valorization of national resources. In the center of development we'll have the need of the individual, while enabling active participation of all relevant social groups and establishment of partnerships among different social structures. At the same time, population, business and "green" interests need to be made compatible.

Linear dependency of economic development and the use of natural resources respectively growing anthropogenic pressures on the environment, characterizes economies in the region of Southeastern Europe, as well as economic development seen in wider global frameworks. Even though a new widely acceptable global agreement on climate changes was recently reached, there is still no significant progress in limiting greenhouse gas emission, respectively we have the lack of means for the transfer of optimal technologies and implementation

of adaptation measures. Thereby we have unemployment growth, and elimination of poverty is not at the desired level. For that reason it is significant that from the aspect of productivity improvement and resource management, Montenegro accepted as optimal the scenario that anticipates absolute reduction of resource use for 20% in respect to 2005–2012 average²³¹. Its implementation will require further significant reforms so as to enable decoupling of impacts in terms of resources use, economic activities and social wellbeing, i.e. to enable inversion in respect to environmental pollution.

With its participation in international dialogue regarding Sustainable Development Goals and 2030 Agenda for Sustainable Development, Montenegro demonstrated its full commitment to sustainable development priority issues, such as: **poverty reduction, inclusive economy, rule of law, good governance, implementation of green economy, strengthening efficiency of natural resources usage, climate changes, coastal areas, preservation of sensitive ecosystems, sustainable production and consumption, gender equality and procurement of inclusive and knowledge-based growth**. Aside from global context, another priority is creation of conditions for the implementation of key determinants for sustainable development contained in relevant EU policies, primarily the Strategy Europe 2020 and Roadmap to a Resource Efficient Europe.

Practical implementation and measurable results of moving away from unsustainable

²³¹ UNDP, „National Human Development Report 2014, On the way towards resource efficient economy“, the United Nations Development Program Office (UNDP) in Montenegro, Podgorica, 2014.

development tendencies are still a challenge and they need to represent the backbone of sustainable development policy. Significant step forward was made with the establishment of sustainable management of the coastal zone of Montenegro through realization of Coastal Area Management Program (CAMP) and adopting of National Strategy on Integrated Coastal Zone Management in synergy with drafting of a new Spatial Plan of Special Purpose for the Coastal Zone of Montenegro (decrease construction area, increase the level of its usage, introduction of coastal set-back with prohibited construction under 100 m distance from the coastal line, elimination of conflictual purposes existent at most valuable parts of coastal zone, improvement of governance system by establishing coordination mechanism for integrated coastal zone management, etc.). Waste Management Strategy of Montenegro until 2030 establishes ambitious goals (for example from the aspect of recycling and re-use of paper, metal, plastics and glass from households and other sources of non-hazardous construction waste), whose achievement will significantly improve resource efficiency, as well as centralized approach to waste management.

During previous period the **Millennium Development Goals** represented a mean for measuring and monitoring progress in terms of realization of singular key tasks important for sustainability of development both at national, and international level. As part of regular monitoring in terms of implementation of the Millennium Development Goals, during 2013, positive trends were evidenced in the implementation of goals regarding achievement of universal elementary education, reduction of child mortality rate, improvement of mothers' health and fight against HIV, tuberculosis and other commu-

nicable diseases. General conclusion of the Fourth Annual Report on Implementation of the Millennium Development Goals in 2014 is that Montenegro is on good way to achieve the second goal - achievement of universal elementary education, fourth - reduction of child mortality rate and fifth - improvement of mothers' health. However, it is evident that it is behind with the achievement of the first goal - reduction of poverty, third - gender equality, sixth - fight against HIV and seventh - environmental sustainability.

Seventeen just adopted comprehensive, universally applicable and by their nature transformable **Sustainable Development Goals** within 2030 Agenda for Sustainable Development replaced the Millennium Development Goals, with which a positive step forward is being made from the aspect of enabling thorough monitoring of all aspects of sustainable development of the society. They are oriented towards the achievement of concrete and measurable results, they are concise and universally applicable to all countries while taking into consideration different national realities, capacities and levels of development, as well as respecting specificities of national development context. Establishment of adequate monitoring system in terms of sustainable development goals, in national context, will represent a challenge for the existing system of public governance. For that reason it is necessary to have reform and substantial **strengthening of the existing institutional framework in terms of governance and funding for sustainable development**. In order to ensure functional inter-sectoral cooperation and improvement of efficiency in terms of functioning of governance system for sustainable development, it is necessary to horizontally strengthen institutional capacities for the implementation of national sustainable de-

velopment policy, whose focus is goals and indicators of sustainable development, and with it other related sectoral policies.

2.5.2. Environmental governance system

According to the Report of the World Commission on Environment and Development from 1987, the concept of sustainable development means balancing economic, social and ecological requirements so as to “meet the needs of present generations without compromising the ability of future generations to meet their own needs”. From that moment on, the concept evolved into the approach based on the integration of three pillars of sustainable development. At the same time making this concept operational is the result of both theoretical and political tendencies directed towards ensuring long-term sustainable socio-economic development and environmental protection. For that reason a particular place in the governance system for sustainable development **belongs to environmental governance system**. In respect to numerous weaknesses within environmental governance system established by the NSSD in 2007, numerous challenges are still present, out of which the most significant ones are those related to: **enabling complete harmonization of national legislation with *Acquis Communautaire*, more efficient implementation of regulations, establishment of administrative and entire institutional capacities for environmental governance and natural resource management, then enabling more efficient horizontal and vertical institutional coordination, and especially overcoming inadequate financing of environmental protection both from public, and private sources and still emphasized low level of integration of environmental and sectoral policy issues.**

Ministry of Sustainable Development and Tourism, Environmental Protection Agency and Administration for Inspection Affairs have key competencies in respect to environmental governance. Certain areas are under the competence of the Ministry of Agriculture and Rural Development (water management, forestry management, etc.), while certain competences were conferred to the Ministry of Health (e.g. drinking water quality), the Ministry of Transport and Maritime Affairs, the Ministry of Justice and the Ministry of Interior. Institute of Hydrometeorology and Seismology, Public enterprise “National parks”, Center for Ecotoxicological Research, Public enterprise for Coastal Zone Management are institutions with significant tasks in the area of environmental protection. It is important to mention Maritime Safety Department, Harbor Master’s Offices, Forest Administration, Water Directorate, Bureau of Metrology that within the scope of their competencies have to contribute to the preservation of the environment. Environmental governance is partially entrusted to local self-governments that dispose of different capacities, which in many cases are characterized by numerous limitations in terms of completion of entrusted tasks, especially when application of system instruments is concerned such as strategic and project based assessments of environmental impacts and issuance of integrated permits. Inspection supervision in the area of the environment is performed by a small number of environmental inspectors, while *usus fori* in this area is practically inexistent.

In reference to that, it could be concluded that necessary institutional infrastructure in Montenegro for treating environmental and sustainable development issues, as well as for implementation of strategic documents

exists. However, the existing capacities are not satisfactory. When it comes to a specific department in charge of the environment, it should be reminded that in previous period its institutional organization and competences often changed. For that reason and in order to solve numerous accumulated problems and to provide responses to complex challenges in the forthcoming period, it is necessary to make significant changes in respect to allocation of competencies of governing authorities so as to have under one roof all areas of environmental protection and improvement of its status. It is necessary to have the state, as well as municipal authorities, organizationally, professionally and technically capacitated to perform their activities in a prompt and quality manner in accordance with international standards, thereafter to establish functional and efficient system of horizontal and vertical coordination²³². So far, numerous instruments of environmental governance were incorporated into national legal framework, through harmonization process of legislation in the area of environmental protection with *Acquis Communautaire*: assessment and strategic assessment of environmental impacts, integrated prevention of environmental pollution, as well as numerous instruments and procedures for the protection of segments of the environment and reduction of environmental pressures, such as technical standards, permits and offences and crimes in the area of the environment, as well as responsibility for the damage in the environment. In the process of European integra-

tions, further efforts are needed²³³ in order to enable implementation of project based and strategic assessments of environmental impacts, at national and local level. At the same time assessment of environmental impacts is an instrument that is overused at local level, while for the issuance of integrated permit, no satisfactory capacities of local self-government were established²³⁴.

With the amendments to the Criminal Code in August 2013 a better basis for the implementation of the Directive on eco-crime²³⁵ was established, but numerous obstacles for efficient control and environmental inspection monitoring are still evident²³⁶. With these amendments inspectors were enabled to penalize smaller offences by issuing decisions on committed offence (from September 2011 to March 2014, only 43% of pronounced penalties were collected²³⁷.

²³² National Council for Sustainable Development, Analysis of Achievements and Challenges of the Ecological State: 20 years of the ecological Montenegro, Government of Montenegro, August 2011

²³³ European Commission, Progress Report, 2014

²³⁴ UNECE, Third State of Environment Report of Montenegro, 2015

²³⁵ Progress Monitoring Report, 2015

²³⁶ In the period 2009–2013 environmental inspection filed about 180 offence charges, out of which one third was rejected as unfounded due to the lack of evidence. In the same period environmental inspection filed 15 criminal charges out of which 6 were rejected as unfounded, and for the remaining 9 cases the inspection has no feedback whatsoever from competent courts

²³⁷ UNECE, Third State of Environment Report of Montenegro, UNECE, 2015.



3



An aerial photograph of a city, likely Montenegro, showing a dense urban area with many buildings and some greenery. A large purple rectangular overlay covers the top half of the image, containing the title text in white.

Key unsustainable development trends and sustainable development needs by 2030

For the purposes of achieving sustainable development goals of Montenegro, it is necessary to adequately respond to **key problems** in terms of national resources use and management. Namely, the assessment of the state indicates numerous factors that lead to unsustainable trends in terms of human, social, natural and economic resource use and management, as well as in terms of governance for sustainable development. Overview of key drivers, pressures, states and impacts, following DPSI(R) method (drivers–pressures–state–impacts–responses), is shown as attachment II in tables P II-6, P II-7, P II-8, P II-9. Certain causes relate to more problems and vice-versa – some problems have their root in more specified causes. With systemization of problems and causes, then assessment of the level to which certain groups of problems and causes, obstacle the achievement of sustainable development goals and weaken prospects for long-term sustainable development of Montenegrin society, key problems and weaknesses and related needs as per points 3.1 to 3.5 of this chapter are singled out.

3.1. Key problems of human resources sustainable management

Starting from the assessment of the state, it is possible to feature a set of key problems, weaknesses and needs that relate to human resources management in function of sustainable development of the society.

When demographic resources in Montenegro are concerned, key factors that influence current state are: rate of natural increase that is continually decreasing (from 20‰ in the middle of the 20th century to 2,2‰ in 2011), birthrate decline and mortality growth, population aging at the level of the state, growth of the number of inhabitants of only 1,3% in the period between 2003 and 2011 census, negative migration balance in the period 2003–2011, as well as imbalanced intensity of internal migrations. Pressures that may be identified are: factors active from the 1990s (breakup of former SRFY, wars in the surroundings, international community sanctions and deep economic crisis), low reproductive norms accepted by the majority of Montenegrin population, economic exhaustion of Montenegrin citizens that negatively impacts birthrate, as well as material insecurity and better living conditions in cities of central and coastal region in respect to northern region, which significantly influences internal migrations. In respect to identified pressures, the following key problems, weaknesses and disadvantages stand out:

- According to MONTSTAT projections, by 2031 Montenegrin population could be within the interval from 642 thousand (high fertility variant and growth

of 3,5%) to 578 thousand (constant variant and reduction of population for 6,8%);

- According to United Nations projections, negative demographic trends until 2050 will cause reduction of the number of inhabitants in Montenegro for about 8,2%, which would approximately correspond to the population from the end of 1970s;
- Population aging makes Montenegro face growing healthcare expenses, slower growth of human capital and growing rate of unproductive and productive population;
- Stated factors could have as a consequence reduction of purchasing power and aggregate demand, as well as deceleration of technological development.

When health as a factor of human capital is concerned, key factors that can be featured as per their impact on current state are: dominance of chronic non-communicable diseases that cause premature mortality, existence of inequalities in health, curatively directed healthcare system, insufficient presence of promoting measures in terms of health and disease prevention while treating users of health services, characteristic behavior of the population that is not in accordance with health, share of healthcare expenditures in GDP is significantly behind EU average (32% less), and fairly behind SEEHN average (12% less), share of healthcare expenditures in the budget is significantly behind EU average (35% less), and fairly behind SEEHN average (20% less), share of out of pocket payments in overall healthcare expenditures significantly exceed SEEHN average (42% more), as well as insufficient level of earmarking for healthcare – 461 dollars per capita (926 dollars per

capita, if public private partnership (PPP) is taken into consideration), which is two times less than Croatia (or 40% less, if PPP is taken into consideration), and four and a half times less than Slovenia (or 2,8 times less, if PPP is taken into consideration).²³⁸ Identified pressures are: insufficient share of the number of preventive checkups for non-communicable diseases in total number of checkups, newly identified pathogens and diseases they cause, as well as diseases that are becoming actual again due to changes in human habitat, increased number of passengers in international traffic, then increased risk of disease importation and possible epidemic outbreaks, inadequate use of antimicrobial medicines, sensitivity of certain population groups and limited capacities and resources in the area of healthcare. Having in mind identified pressures, the following key problems, weaknesses and disadvantages are being featured:

- With investments into healthcare that are decreasing and high OPP²³⁹, with the chronic problem of inefficient use of resources and growing population needs, the question regarding sustainability of health system is inevitably being opened;
- Insufficiently developed health enlightenment and inadequately oriented health care cause the necessity for higher expenditures of clinical medicine;
- Inefficient use of the existing means

due to inadequate focus on disease prevention and health promotion;

- Chronical non-communicable diseases lead to disability, premature mortality and bad quality of life of active population, which negatively influences labor market and economic potential of the country;
- Deepening inequality gaps in healthcare of different population groups.

Factors that influence current state in the area of education and skills in Montenegro are possible to identify as: low investments in pre-primary education (0,38% of GDP in respect to 0,50% which is OECD average), huge regional differences in terms of presence and efficiency of pre-primary education, increased level of violence among children and adolescents, increased rate of plagiarism perception in higher education (it is important to emphasize that certain difference between perception of this problem and real experience with it is registered)²⁴⁰, as well as weakened connection between school and labor market, respectively wider social community. Existing pressures are: insufficient capacities for pre-primary education (especially in coastal and central region) and insufficient investments in this area, insufficient level of development in terms of citizen's awareness on pre-primary education significance, insufficient effects from investments into education sector (increased for 50% in the period 2006-2010), low quality of educational staff (bad selection and job unattractiveness), unequal material-technical conditions in schools, reduced upbringing role of schools, weakened ethical dimension at

²³⁸ World Health Organization, Global Health Expenditure Database, 2013. <http://apps.who.int/nha/database>

²³⁹ Out of Pocket Payments in overall health expenditures.

²⁴⁰ Center for civic education, „Research on public opinion on corruption in education“, 2015.

the level of higher education as well as unfinished reform process in entire education sector. Having in mind stated pressures, we can isolate the following key problems, weaknesses and disadvantages:

- Insufficiently developed pre-primary education influences children's development in an inadequate manner, which can have negative socio-economic effects on the society as a whole;
- Bad results at PISA testing demonstrate that education system does not prepare the youth in Montenegro in adequate manner for further successful education, future profession, private and social life;
- Quality of higher education that is not at a satisfactory level and, for the time being, unsolved issue of lifelong learning, greatly reduce possibilities for the development of human capital and economic potential of the state.

Should previously stated problems in the area of human resources continue to persist in a longer period of time, they could lead to a more substantial degradation of human resources in respect to the existing state and jeopardize development potential for sustainable development of Montenegro.

3.2. Key problems of social resources sustainable management

Having in mind the assessment of the state, it is possible to feature a set of key problems, weaknesses and needs that relate to social resources management in function of sustainable development of the community.

Attitude of key actors towards development sustainability - When attitude of key actors towards sustainability of development is concerned, we can identify a set of problems and weaknesses that currently disable their active contribution (as key actors we featured family, public institutions (especially educational ones), formal and informal groups of citizens, i.e. civil society and business community):

- At the level of social groups, modern social dynamics is characterized by the conflict among inherited traditional and patriarchal value models and patterns and challenges imposed by the modern, technologically advanced society. In conditions of accelerated social transformation that is additionally boosted by the processes of European integrations, the society does not have the time to *naturally* grow towards new valuable matrices but it remains within the process that causes the state of conflict. "The old" is feeling threatened and gives resistance to changes, trying to adapt newly-adopted structures and rules to the old ones. In that way, reforms and changes are necessarily being limited in their success.

- Despite the efforts made in previous period in order to bridge certain identity gaps that had their peak in pre-referendum period, divisions still persist. Even though not always visible at the surface, they are easily detected through divided trust in public institutions or lack of social consensus regarding some more important development issues. Such state in the long term is unsustainable and requires increased efforts in order to overcome this very harmful gap that in accordance with Lipset-Rokkan *freezing hypothesis* threatens to turn itself into basic social gap that persists even after its external manifestations are “cured”.
- Even though civil society experienced strong development in the period from the introduction of pluralism and significantly and positively affected the transformation of the state, we still have problems concerning its unsustainability. Civil society organizations are on one hand still dependent on donors, while on the other hand there were no substantial changes in terms of political culture changing into participatory one, therefore informal groups of citizens that organize themselves with the aim to protect their own interests are still rare.
- Under pressure to speed up certain reforms, great number of changes was not supported by real capacity development that would follow these changes. Accordingly, many important and good ideas and institutions did not last.

Values - In the process of value system transformation in Montenegro, we can notice numerous problems, weaknesses and obstacles, out of which the majority is caused

by the discrepancy between the old one and the need for a new one. Primarily, it is about the following:

- Montenegrin society is closely related by parental and other personal relations, which to a great extent represents an obstacle to the introduction of *meritocratic* decision-making and progress as a principle. All so-called densely networked societies manifest this type of problem.
- Very few collective activities indicate insufficiently used potential of Montenegrin society *solidarity*.
- In the process of the breakup of old traditional value patterns, the society is being atomized and individuals are left on their own, which very often leads to certain socially deviant and destructive behaviors.
- The society is divided in terms of identity, which can be seen through certain indirect indicators such as *trust in institution* or *ethnic distance*. Even though parameters on these indicators in respect to other states in the region and even in Europe are not extreme, there is a negative worrying trend.
- Economic transformation brought to accelerated layering on so-called *winners and losers* of transition and the gap between these two categories of citizens is getting deeper on daily basis and multiplied through connected systems - education and health, above all.
- Rare are the issues in reference to which there is a defined social consensus of all relevant actors.
- Even when procedural consensus is concerned, we cannot talk about its for-

mation is finished, being that very often not only results of certain processes, but also procedures and rules are questioned. The society that does not have a defined procedural consensus for solving conflicts of different interests does not have proper way of solving conflicts that are inevitable part of every social process. Further consequences thereof are anti-system acting and instability.

Rule of law and trust in institutions – Even though significant reforms were implemented since the introduction of pluralism until nowadays aiming at the affirmation of rule of law principles and ensuring the trust in institution, there are still numerous weaknesses in this area that need to be worked on. As the most significant ones we can feature:

- The quality of implementation of regulations remains a big problem for many reasons. During transformation and especially during European integrations great number of regulations was harmonized with international standards, however their implementation still remains a big problem.
- There are numerous obstacles on the way towards quality implementation of rules out of which administrative capacities are one of the most serious ones. In spite of constant investments, the issue of selection and progress of public administration in this segment is not being treated in an adequate manner. Additionally, the issue of rewarding and stimulations given to public administrations that perform well their activities remains unsettled and it leads to reduction of motivation.
- Results regarding the fight against

corruption are also not at satisfactory level. In spite of the progress achieved in previous period so as to tackle with this phenomenon norm-wise and essence-wise, it still remains a significant problem of Montenegrin society.

- Citizens do not have sufficient trust in system institutions. This data is additionally worrying since the trust is constantly decreasing and that there is huge identity division in terms of trust in institutions which indicates that this gap determines important policy processes and citizens' behavior.

Organizational culture – When organizational culture is concerned, we have the dominance of inherited concept of collectivism and collective responsibility that significantly limits the development. Namely, trust in the power of the state instead of in strength and potential of entrepreneurship is characterizing organizational culture in Montenegro. The most significant problems and weaknesses that can be noticed are:

- Dominantly present centralized model of decision making and giving over responsibilities to someone else. People are avoiding taking risks and are running away from any responsibility, which limits their initiative and activities in general.
- The community is dominantly collectivistic, which in practice means existence of settled authorities and structures inside which and behind which there is an individual “hiding”, avoiding responsibility.
- Aversion from risks necessarily leads to bureaucratization of all political, social, and thus economic processes.

- Such system of cognitive matrices is particularly strengthened by communist inheritance, which additionally slows down economy transformation.
- There is no sufficient entrepreneurial initiative as a consequence of the above stated. This lack in turn leads to reduced overall economic potential.
- Innovativeness as the principle and capacity is not sufficiently supported, which has particular negative impact on small and medium sized enterprises.
- There is no culture of corporate management and there are no resources of quality managers who could speed up the transformation.

Employability and social inclusion - Employment issue is rather sensitive in respect to certain trends outside state borders so it cannot be entirely controlled. However, system approach of all relevant subjects can help the fight against it with increased labor force employability and thus prevent poverty and social exclusion. There are many problems on that path out of which the most significant ones are:

- Montenegrin economy depends to a great extent on foreign investments. Aside from that, its biggest part has service character, which makes it very vulnerable to certain external processes that are hardly to be influenced. General economic situation both in Montenegro and wider brought to reduction of demands for the opening of new jobs, and thus for higher employment rate.
- Despite the efforts that are more and more being invested in this direction, education system is not sufficiently connected with labor market and it is particularly inflexible in terms of giv-

ing response to rather dynamic changes happening thereupon.

- Concept of lifelong learning has not been implemented to the sufficient extent so the very employees are inflexible when seeking and adjusting to the needs of the jobs.
- Universities, scientific-research institutions and economic subjects are still poorly cooperating and do not produce new jobs.
- Labor legislation did not reach sufficient flexibility level that would stimulate employers to increase hiring. On the other hand, insurance systems that protect existing employees do not allow new motivated labor force to get their chance. Particularly alarming situation is with the employment of the youth.
- There are not enough resources for active measures of labor market.
- Population is rapidly getting divided per rich and poor, which opens space for social exclusion.
- Gender structure of employees is not balanced.
- Persons with disabilities are not sufficiently employed and the existing legal mechanisms do not solve this problem in an adequate manner.
- Social entrepreneurship is not recognized and promoted to a sufficient extent, as a possibility for social inclusion and economic strengthening of marginalized groups.
- Gray economy and informal work damage in many ways both economic system and individuals who are under significant risk of marginalization under these circumstances.

- Social policy so far was dominantly oriented towards marginalized social groups and towards the use of so-called *ad hoc* socio-political measures aiming at mitigation of social problems, and not at system and preventive action. The existing system of social protection does not satisfy to sufficient extent structural needs of vulnerable categories of population. Additionally, the system is not flexible and adapted to sufficient extent to modern needs.
- Social institutions do not dispose of sufficient means necessary for the realization of activities harmonized with standards.
- Insufficient decentralization of the system of social protection causes problems in respect to recognition of specificities of social issues at local level.

Balanced regional development - Unbalanced regional development of Montenegro can mostly been noticed in northern region. While central region, as well coastal one, is in constant expansion in transition and post-transition period, northern region has an unstoppable negative trend in almost all parameters. There are many problems which can be featured out of which the most significant ones are:

- Basic reasons for such negative trends are bad traffic connection of that region with the rest of Montenegro, connection of other regions, as well as bad condition of the remaining infrastructure that represents a prerequisite of every development.
- Decades of absence of system solutions for the development of the north, as well as balanced other regional differences, brought to worse socio-eco-

nomic and social ambience that does not offer sufficient conditions for quality living and working.

- Instead of having natural and spatial resources become comparative advantage of the development, they are to a significant extent being unsustainably consumed, which leads to physical devaluation of values of this area and to unbalanced allocation of that potential.
- These causes and problems brought to unsustainable reduction of human resources in northern region.

Development of culture and preservation of cultural diversity - Culture represents an important segment of sustainable development, it is often mentioned as its fourth pillar, and as an inevitable segment of successful human development. Richness of cultural layers and, above all, multiculturalism, are deeply set into Montenegrin identity. For that reason it is important to continue developing culture as fundamental value of a happy and developed society towards which we are striving. There is a number of problems which may be noticed out of which the most significant ones are:

- Earmarking financial resources for the needs of culture, especially at local level and for informal cultural activities, is not sufficient and it needs to be allocated evenly;
- Insufficient capacities of public institutions that implement cultural policy, as well as other formal and informal cultural actors for the acquisition of extra budgetary funds such as European funds, cooperation with business, development of cultural industries and similar;

- Insufficient attention being given to the cultural needs of the youth and old, as well as to the needs of marginalized groups. Bad condition of spaces dedicated to cultural purposes, low level of infrastructural facilities and necessary modern equipment.
- The audience is not sufficiently educated which leads to a situation where the audience itself as well as cultural actors loose because the offer that is being created and the existing demand result in lower quality. In the future, this needs to be changed. It is essential that public administration assumes the care of education and extension of the number of people consuming culture.

Integrated protection and management of cultural heritage and protected landscape—Cultural heritage and protected landscape represent a very important resource for sustainable development, and they should not be seen as an obstacle or burden to economic development. Still, rich heritage is not valorized nor protected in an adequate manner. There are more reasons for such situation, but the most significant ones are:

- Huge pressures incurred due to fast and unsustainable urbanization, especially of coastal region, as well as insufficiently strong institutions, insufficiently financed and competent capacities, weak inspection control, brought to a very bad condition in which monumental heritage is.
- Protection institutions are not sufficiently qualified from the aspect of competency and number so they could efficiently deal with the protection and management of cultural heritage. That is also an indicator that cultural heritage and culture are not recognized as

promoters of sustainable development. Moving away from such approach needs to be enabled. The existing protection system above all refers to cultural properties, whereas it is necessary to have legal framework cover cultural heritage also.

- Immobile heritage is exposed to negligence and physical devastation and it is insufficiently covered with professional researches and accompanying documentation base. On the other side, jeopardizing of immobile heritage was evidenced with cases of illegal trade, whereas previously it has not even been evidenced in a satisfactory manner.
- Great problem in practice is the problem of cultural properties not being integrated in an adequate manner into drafting of spatial planning documents. Instead of having cultural properties and landscape values represent the axes around which to build potentials and values of the space, often they become obstacles and slowing factors of planning process.
- Inexistence of unique data base of monumental heritage that would be regularly updated and available to the public.
- Systematic mapping is not over, whereas insufficient availability of professional basis regarding state and conditions of cultural properties protection is evident.
- Management and protection system is not even close to being as efficient as it is necessary to be so as to protect rich cultural heritage.

3.3. Key problems of natural resources use and management

Starting from the assessment of the state it is possible to feature many key problems, weaknesses and needs that characterize **natural resources use and management**, especially from the aspect of development impacts on the state of natural resources.

In respect to environmental protection and sustainable use of natural resources it is particularly important to define responses to main factors and connected risks thereof in terms of **nature and biodiversity endangering**²⁴¹. As key factors and risks the following ones can be featured: habitat degradation (due to uncontrolled exploitation of pebble and sand, inconsistent application of leading principles for the development of sustainable hydro-energy and strategic and project assessments of impacts of water resources exploitation on the environment, uncontrolled deforestation, urbanization and infrastructural development, especially in coastal area); uncontrolled hunting and fishing and collection of edible and medicinal plants, mushrooms and forest fruits; dissemination of allochthonous invasive species; as well as soil, water and air pollution. Loads on ecosystems are increased (especially in coastal area and protected areas) due to increased number of visitors and construction of new tourist capacities. Loads on ecosystems from traffic are emphasized and include air pollution, destruction and fragmentation of

habitats with traffic infrastructure and dissemination of invasive species (due to marine traffic operations). In respect to such evidenced loads, the following key problems, weaknesses and disadvantages are featured:

- Lack of precise and systematic data regarding the state of ecosystem is emphasized being that biodiversity monitoring program is being implemented for a relatively short period of time (since 2000), in a very reduced scope and without enabling full assessment of the state and trends. However, in respect to such limited data, significant pressures and examples of degradation were evidenced, and as the most endangered ecosystems we have forest vegetation (due to constant exploitation), then coastal (due to conversion of natural habitats into urbanized areas) and water ecosystems (due to different aspects of pollution and exploitation of pebble and sand which reduces their productivity)²⁴².
- Due to the lack of data, assessments of the state and trends is rendered difficult with species diversity in Montenegro (Red Lists and Books of Species are not prepared, and data regarding the state of selected species are available only for a shorter sequence of years).
- Underestimation of biodiversity values and ecosystem services in spatial and development plans is evident (e.g. those with which exploitation of energetics and production of electric energy is regulated). Also, the use of ecosystem

²⁴¹ Recognize within National Biodiversity Strategy 2010–2015.

²⁴² Ministry of Sustainable Development and Tourism, National Biodiversity Strategy 2010–2015, Government of Montenegro, 2010.

services or damage done to them is not adequately evaluated and integrated into enterprise expenses. In the assessments of impact that certain plans and projects can have on the environment, biodiversity values and benefits from ecosystems are often neglected (being that assessments of these values are rare and appear only in the last couple of years), whereas the priority in these assessments is often given to economic aspects, which in the long term can lead to serious degradation of ecosystem capacities in terms of continuation of providing the same quality and quantity of services.

- Inefficient technologies result in higher level of pollution and considerable pressures on biodiversity.
- While planning economic activities, ecosystem approach is not applied even though it is based on regulations, and to certain extent on national and local policies and plans. Evaluation of the acceptability of activities and services in the context of preservation and integrity of environmental network and environmentally significant localities has also been established by the Law on Nature Protection, but its implementation is still not effective. Due to the lack of data regarding specific natural properties and landscapes, implementation of the Act on the conditions of nature protection is also not effective.
- Systematic mapping and competent basis for distribution and state of habitats and species are missing. In combination with insufficient capacities, these disadvantages make that public administration does not give adequate responses to pressures incurred due to high real estate demand (especially in

the most attractive locations), respectively intense urbanization and construction not adapted to the ambience.

- Knowledge and information regarding values of services provided by ecosystems are not sufficiently developed. Incentives for the development of green economy activities contributing to preservation of ecosystem stability are not developed either, so we still have as dominant resource intensive activities (either when pollution or consumption/occupancy of resources is concerned).
- Particularly significant group of disadvantages relate to protected areas of nature: incomplete information regarding borders and status of protected areas of nature, incompatibility of previously implemented procedures regarding nomination of protected areas of nature with newly prescribed categories of protection, insufficient competent capacities of protected area managers, discrepancy of management and spatial plans, ecosystem services not being integrated into protected areas of nature management plans, etc. Protected areas system is not representative i.e. it is not established in a way to have all valuable ecosystems covered (for example, protected areas in the sea are missing), whereas goals regarding protection of new areas are not reached within scheduled deadlines. For many of the existing protected areas, there are no established management structures, so protection has declarative character, and protected areas of nature are exposed to numerous risks due to impacts of previously stated endangering factors.
- Protection measures of valuable ecosystems outside protected areas are very rarely implemented.

- Endangering forest ecosystems with climate changes and increased risks of droughts, fires and biotic pests is present, as well as significantly increased illegal logging and concessional logging that results in the export of raw material (logs), and not of final products. Negative impacts of climate changes on forests include changes in vegetation zones, reduction of population growth, reduction of the number of species, forest dry and more frequent forest fires²⁴³.
- Implementation of European Landscape Convention is not at satisfactory level, and herewith accompanying harmonization of legal regulations in the area of spatial planning, nature protection and cultural heritage protection is not entirely implemented. Also, landscape policy was not adopted. Particularly emphasized is the lack of landscape typology that should identify types of landscapes on Montenegrin territory, respectively that should create the basis for legal protection of exceptional landscapes. Due to insufficiently developed awareness, shortages in regulations and inadequate competent basis, in combination with urbanization impacts, landscape quality is violated to a significant extent.

When using natural resources, particularly worrying are weaknesses and disadvantages demonstrated by systems of pollution control and natural resources management,

especially in the context of development impacts on the state of natural resources. The following problems, weaknesses and disadvantages can be singled out in the following group:

- At certain locations we have had degradation and excessive pollution of surface and ground waters, soil, air, valuable parts of nature and forests, as well irrational use of resources (e.g. drinking water, agricultural land). From eco-toxicological aspect, the town of Pljevlja is a dominant ecological hot spot. Great ecological problems are industrial waste disposal sites: red sludge basin and industrial waste disposal site at KAP, industrial waste disposal site – grit in the Adriatic Shipyard Bijela, ash and slag disposal site „Maljevac“ in Pljevlja and flotation lead and zinc tailing pond Gradac – mine „Šuplja stijena“ in Pljevlja, location where Steel plant in Nikšić disposes its waste, but also locations for hazardous waste, such as a location within the complex Porto Montenegro in Tivat, where waste grit is deposited and flotation tailing pond “Gradir Montenegro” in Šule. Waste and municipal sewage and outdated polluting technologies that were used in industry represent main causes of negative pollution impacts. Technologies used in industry and energy facilities in Montenegro are characterized by high level of inefficiency and high level of pollutant emissions into the environment. Increased concentration of pollutants in soil is the consequence of inadequate disposal of municipal and industrial waste or emission of exhaust fumes and disposal of harmful substances from exhaust fumes near bigger roads. Particularly

²⁴³ Ministry of Spatial Planning and Environmental Protection, „First National Report of Montenegro on climate changes according to The United Nations Framework Convention on Climate Change (UNFCCC)“, Government of Montenegro, 2010.

emphasized is the problem of inefficiency of numerous small, dispersed sources of pollution emissions into the air (e.g. individual furnaces and heating systems), while negative impact of traffic on air quality is growing (due to increased total number and significant share of old, inefficient vehicles, use of fuels with inadequate quality and similar). Also emphasized is the insufficiency of the existing regulations from the aspect of the implementation of economic instruments with which transition to technologies and processes with lower level of emissions would be ensured. Adequate measures for pollution prevention, reduction and/or control is also lacking, as well as application of best available techniques (BAT).

- Infrastructure-sewage system and waste water treatment plants are still not constructed to the extent that would enable significant reduction of anthropogenic pressures on population health, natural resources and optimal development of Montenegro as tourist destination. Control of industrial pollution of waters is inadequate, respectively in most cases waste waters from industrial plants are released into natural recipient without additional treatment, while at emission source there are no controls of released waste water quality and quantity. Increased load of polluted surface waters with organic pollutants (orthophosphates and nitrates) from municipal and industrial waste waters jeopardizes the quality and quantity of drinking water. Safe water supply from the aspect of hygiene and epidemiology is jeopardized by outdated water supply network, in certain cases also inadequate drinking water treatment, while zones of sanitary protection around

certain water sources are violated (and around certain water sources they were not even established).

- Efficient system for solid waste treatment is not established, whereas pollution pressure generated due to numerous not restored solid waste disposal sites generates numerous negative impacts on soil, air, surface and ground waters, deteriorating also visual identity of the space.

- Valid data on the monitoring of environmental pollution effects on population health are missing, as well as analysis of the impacts of increased concentrations of certain pollutants on health, including also assessment of overall damages that economy is suffering due to environmental pollution (e.g. treatment costs, absence from work costs and others).

- Harmonization of national legislation in the area of waters with *Acquis Communautaire* is not completed. Key by-laws that are to regulate the control of quality and quantity of surface waters are not adopted, and the lack of continuous monitoring of the state of surface and ground waters is particularly emphasized, together with fragmentation of competences from the aspect of water resources management and protection. Lack of financial, institutional and technical capacities for overall monitoring, evaluating and reporting on the state of the environment is more and more distinguished, respectively there is certain discrepancy among national standards and relevant EU standards. Reason for such state is also inadequate financing of monitoring of the state of all segments of environment, relevant scientific research, departments and

institutions that were founded and in charge of monitoring realization, which in the end leads to the lack of data that are a starting point for taking protection measures and adopting sustainable development plans.

- Insufficiently rational and efficient use of waters is still present, which for instance is manifested in great losses in water supply systems, non-purposeful water consumption, lack of recycling respectively reuse of water to a more significant extent and similar. Unsustainable pebble exploitation from river beds is not stopped.

- System for efficient prevention and control of risks from torrents and erosions is not established (insufficient technical and infrastructural capacities).

- Instruments for water management and stimuli for efficient use of waters are not sufficiently developed and are not implemented in a way that would ensure long term sustainable use of water resources. Unique national water information system is not established, and we still do not have river basin management plans. Application of taxes and compensations for the use of water resources is not integral and adequate. Certain local governments retain that adequate control over calculation of these compensations is not procured²⁴⁴.

²⁴⁴ According to the opinion of the municipality of Pljevlja, which was expressed during public discussion, being that local governments use 70% of compensations for the use of water resources, and that decisions with which these compensations are established are issued by Water Directorate, a better control over this process needs to be established by the local self-govern-

- Phenomena of uncontrolled and unplanned logging are still present and not evidenced in official statistical data, and problems of insufficiently efficient forest management in the existing and potentially protected areas are emphasized, especially from the aspect of giving contribution to the attractiveness of Montenegro as a tourist destination.

- Wood processing industry is characterized by low level of processing and product finalization, as well as insufficient use of wood waste, including its use as biomass for energy purposes. Logging inefficiency and production of wood construction materials are at unsatisfactory level.

- We have numerous barriers on the way of using technical materials, including minerals, in the context of introducing circular economy concepts. Mitigation of pollution or innovativeness is not encouraged, whereas lack of political and other measures for internalization of external costs is evident. Inter-sectoral and cooperation among separate chains of value is insufficient, potentially more efficient models of production and consumption are not well accepted by producers and consumers. Lack of investments into renewal and maintenance of the existing infrastructure, into innovations and technologies is present (stuck within the use of the existing technologies), as well as insufficient waste separation and recycling.

- The share of consumption of low-calorie lignite is high, and transformation efficiency is low. On the other side, not sufficient attention is given to incentives

ment.

that would contribute to consumption reduction of this raw material, e.g. for: projecting energy efficient buildings, introduction of standards for buildings with zero energy consumption, reconstruction of the existing housing stock; bringing to the lowest level consumption of fossil fuels in tourism by rational planning of accommodating capacities and application of new technologies for heating and cooling (including e.g. solar collectors for water heating); modes of transportation not using fossil fuels or using fuels with lower emissions; stimulating innovations and technologies that rely less on fossil fuels; energy efficiency in industry, etc.

- Concessions for the use of certain raw materials (metals and non-metals, but also waters and forests) mainly do not reflect real costs connected to the use of these resources, and subventions harmful for the environment are evident.

- Key problem regarding spatial management is its unsustainable spatial capacitating that is not in accordance with real needs in terms of quantity and quality of constructed area. Irrational urban expansion characterizes a set of singular weaknesses and disadvantages:

- Public expenditures relating to financing of spatial development are growing. This implies unnecessary expenses for financing of infrastructures outside existing centers and at the same time postponement and insufficient functionality of infrastructure within city centers. Aside from that, possibility for efficient use of public transportation that would integrate new units with the existing ones is reduced.

- The spirit of the location and the identity of the settlement is lost, which is particularly significant for communities that have development ambitions in the area of tourism. New dispersed communities rather often suffer from the lack of social interaction, whereas the existing urban units atrophy, loose economic vitality and inhabitants.

- Strong pressures on the environment are generated in terms of space being fragmented by expansion of urbanized areas, with which biodiversity and landscape values are particularly disturbed, whereas suitability and capacity of agricultural land is endangered.

- Potential for economic growth is being reduced due to disrepair of the existing construction stock and infrastructure in urban centers, whereas displaced jobs towards the periphery and construction of mono-functional zones increase transport costs and cost price and maintenance of new infrastructure.

- Possibility to capitalize historical potentials of our cities is being reduced, such as public spaces, unique cultural and historical landscapes particularly present in European cities.

- Limited implementation of spatial plans is evident, especially strategic ones such as Spatial Plan of Montenegro as well as insufficiently controlled urbanization processes, respectively illegal construction. While spatial planning system was getting exhausted through elaboration of numerous planning documents, their quality and importance of their efficient im-

plementation was disregarded. Planning solutions deviated from adopted decisions that due to that even when they were well positioned were not reached²⁴⁵. Part of the problem within the system of spatial planning was also generated by socio-economic transition. Instruments of spatial planning that existed in previous system were not replaced with integral and functional model that would be appropriate for new circumstances. Transition brought to renewal of the power of private property, and spatial plan became a mean for changing economic value of the land. In such circumstances system of spatial planning is very often criticized as being a socialist relic that is in contrast with the principles of market economy.

From the aspect of negative impacts of natural and anthropogenic hazards on the state of natural resources, we can feature the following problems, weaknesses and disadvantages:

- Understanding risks from hazards is still at unsatisfactory level due to the lack of reliable data on proportions of risks and sensitivity to possible impacts, as well as due to the lack of strategic plans, scientific research and insufficient education of population. Aside from plans for protection and rescue from floods, fires and earthquakes, plans for protection and rescue from other natural hazards/disasters and those caused by

humans were not drafted so far. Mechanisms for integration of issues regarding mitigation of impacts and adaptation to climate changes impacts and enabling development with low level of greenhouse gases emissions, into sectoral policies and plans are insufficiently developed. National Plan for adaptation to climate changes is not adopted, and the lack of detailed knowledge, information and capacities for reduction of vulnerabilities to climate changes in the area of human health, agriculture, forestry, water resources management, protection of nature and biodiversity, protection of the coast and flood zones is evident. Detailed, specific and quantified data on sensitivity and potential for adaptation are missing.

- Institutional capacities for reduction of vulnerabilities to climate changes and system response to other hazards, especially in sectors of agriculture, forestry management, water resources and coastal zone management, as well as in health sector are insufficiently developed. Mechanism for coordinated implementation of measures regarding adaptation to climate changes in order to enable as efficient responses as possible both at national and local level within this multidisciplinary area is not established.
- Education on reduction of risks from natural and anthropogenic hazards is not covered by formal education, and there is no education of population regarding responsible attitude towards natural resources, such as: rational use of drinking water, prevention of forest fires, how to act during heat waves and other negative effects of climate changes, etc.

²⁴⁵ Ministry of Sustainable Development and Tourism, National Strategy of Integrated Coastal Zone Management of Montenegro, Government of Montenegro, 2015.

- Adequate medicine researches are missing in terms of protection of human health from negative impacts of hazards and climate changes, whereas the existing capacities (information system, competent knowledge) are insufficient for prevention of diseases caused by climate changes and for reduction of risks from extreme meteorological circumstances.

- Researches regarding climate changes impacts on biodiversity are missing being that they lead to reduction and extinction of species especially in water habitats, reduction of ecosystem productivity, as well as species migration from warmer seas.

- There are also no adequate researches regarding agriculture aiming at protection of crops and providing systematic response from the aspect of the needs to adapt to climate changes (emersion of new diseases due to heat stress, reduction of plant production due to sensitivity to temperature increase), whereas potential for reduction of sensitivity of agricultural land is not sufficiently used because necessary information and capacities are missing.

- Way of using water resources does not completely satisfy sustainability criteria and it is not based on assessed risks from climate changes. As witness thereof we have floods that are not only a consequence of increased precipitation intensity but also of inadequate use of sand and pebble, unplanned logging which caused changes of river courses and soil erosions, and which increases even more vulnerability to climate changes.

- Capacities for planning and implementation of measures for sustainable

forest management as the most adequate framework for adaptation are insufficient. Forest desiccation and biodiversity changes due to observed climate changes are registered, whereas problems regarding reduction of population growth, reduction of the number of species, forest fires and soil erosion are evident.

- Planning and resources management of coastal area are fragmented and do not include expected impacts of climate changes. We are lacking researches regarding impacts of climate variability and changes on particularly vulnerable coastal area in the context of already present loss of beaches and valuable coastal ecosystems and damages to coastal infrastructure. Neither impacts of different types of erosion on valuable agricultural land in terms of its loss, nor jeopardizing of the safety of facilities and infrastructure are not being systematically monitored.

- Awareness and institutional preparedness for preventive action is missing, so reduction of impacts of natural and anthropogenic hazards are mainly observed through development of preparedness for responses to hazards when they already happen (protection and rescue) respectively while hazards are still active. In that context particularly emphasized is the disregard of the importance of preventive investment into prevention of impacts respectively reduction of risks from hazards. In reference to that we have insufficient investments into sustainable infrastructure for the reduction of risks from hazards, such as irrigation systems that would ensure agricultural production during drought periods, infrastructure

for the use of technical water, infrastructure for water management, especially maintenance of torrential courses, implementation of coastal set-back and similar. Also, early warning systems are missing with whose adequate use the risks would be significantly reduced through preventive actions.

- The lack of stable source of financial resources for renewal, remediation, rehabilitation and reconstruction from consequences of impacts of natural and anthropogenic hazards is evident.

In case previously featured **problems of degradation of natural resources and natural and landscape values** continue to last in a longer period of time it can lead to more substantial ecosystem instability in respect to the existing state and to jeopardizing development potentials for sustainable development of Montenegro.

3.4. Key problems of economic resources use and management

Key problems of **economic resources** use and management in Montenegro are systemized in respect to the needs to green national economy, starting from the analysis of macroeconomic trends and requirements to maintain macroeconomic stability within middle and long term, through the analysis of economic sectors in respect to the need to pass onto recommended model of productivity growth and to the reduction of domestic consumption of materials for 20% until 2020 in respect to 2013. At the same time it is starting from UNEP approach according to which **green economy** is a low carbon economy, resource efficient and socially inclusive, therefore the need to mitigate climate changes impacts is observed as horizontal cross-sectoral challenge²⁴⁶.

Aside from the concept of resource efficiency, problems regarding implementation of circular economy patterns are being observed in reference to waste management, given their complementarity with green economy²⁴⁷, as well as the dependency of

²⁴⁶ UNDP, „National Human Development Report 2014, On the way towards a resource efficient economy“, United Nations Development Program (UNDP) Office in Montenegro, Podgorica, 2014.

²⁴⁷ In its report from 2011, UNEP defines green economy as “an economy that leads to improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities”. In practical sense, green economy is frequently defined as an economy based on investments that: reduce greenhouse

green economy on the improvement of implementation of sustainable consumption and production patterns as one of the ways that could lead to improved use of resources²⁴⁸. There is no green economy without efficient resource use, nor sustainable development without green economy. In order to be able to achieve proclaimed goals of sustainable development of Montenegro, it is necessary to adequately respond to key problems of national resources use and management.

Global economic and financial crisis demonstrated that traditional sources of growth and instruments of economic policy are depleted, so global and European economic scenario is changing. It is thereby necessary, with the choice of right instruments and measures of economic and development policy, to adapt in timely manner to actual processes and trends.

As stated in part 2.4.1 where assessment of the situation of macroeconomic trends is done, in providing answers to these problems, **key challenges of sustainable development in Montenegro** remain: maintenance

gaseous emissions and pollution; improve efficiency in the use of energy and other resources; prevents loss of biodiversity and services provided by ecosystems.

²⁴⁸ At global level, respectively in processes taking place within United Nations' system, somewhat bigger attention is given to the concept of green economy (as well as to sustainable consumption and production), while European policies, especially lately, are more dedicated to the concept of resource efficiency. In both policies and documents, the need to transform economies is recognized so as to ensure development sustainability within the limits imposed by natural environment, which is one of basic requirements of circular economy.

of macroeconomic stability, acceleration of economic growth and development by introduction of green economy, while respecting, preserving and valorizing all national resources, especially natural capital, with higher resource efficiency and rising of the level of economy competitiveness, thereafter balanced regional development respectively achievement of goals of economic, social and territorial cohesion of Montenegrin society. As it is stated in Development Directions of Montenegro 2015–2018, strategic goal of development and economic policy, improvement of the standard of living, will be achieved by enabling the conditions for a more dynamic economic growth and development that increase the level of Montenegrin economy competitiveness. Key challenge for Montenegro is how to increase economic growth all over again, respectively how to reduce or even completely eliminate obstacles so as to have a more complete valorization of significant development potentials. The values of **key macroeconomic long term indicators**: rates of real economic growth, employment, as well as balance of payments, including the indicator of indebtedness, inflow of foreign direct investments and indicator of trade deficit, are given by the analysis of the drivers, pressures, state and impacts of use and management of economic resources in Table PII–9 in Annex II.

3.4.1. Mitigation of climate changes

In the context of NSSD, **mitigation of climate changes** is being analyzed primarily through the impact made by energy, traffic and industry sectors:

- Implementation focus of national **energy efficiency** policy in Montenegro is on public sector. However, actual barriers that slow down or impede the

implementation of energy efficiency measures in public sector are relatively big (inadequate attitude towards energy consumption and expenses for the energy, lack of motivation of employees in terms of achieving energy savings, impossibility to allocate budgetary funds to energy efficiency projects without complex procedures, inexistence of energy management systems, inexistence of systemic audit of housing condition, as well as inexistence of the information regarding overall energy consumption of housing stock under the jurisdiction of the state and other).

- Two stationary emission sources (TPP Pljevlja and KAP) represent the majority of national emissions (75% in 2013). It is important to indicate the uncertainties that characterize future operations of these facilities.

- Current situation in **KAP** shows that production was considerably reduced in the last couple of years, and thus the level of primarily synthetic (F) gases. One part of the plant is closed, some of them permanently, such as series "A" in the electrolysis plant that was otherwise the biggest emitter of F-gases, so it can be seen as a positive step from the aspect of greenhouse gases emission reduction in Montenegro. Nonetheless, certain level of production is being maintained, and even certain investments are made, and some bigger ones are planned, especially into modern technologies, therefore there are intentions to make the plant work again with its full capacity after 2020, with the difference that in production process they would use the best available techniques in accordance with the

requirements of new EU regulations on industrial emissions and recommendations of Reference document (BREF) for the best available techniques (BAT).

- When **TPP Pljevlja** is concerned, current situation is characterized by preparatory activities for investing into new thermo-energy block that should, according to actual plan, be finished and put into operation until the end of 2020. Even though construction of new block is planned in accordance with new requirements of EU regulations on industrial emissions and BREF document (draft of Best Available Techniques Reference Document from 2014), construction of new furnace for fossil fuel combustion aiming at electricity and heat production cannot be seen as a positive step from the aspect of greenhouse gases emission reduction in Montenegro. Additionally, TPP operators did not complete definition of precise plans regarding operations of the existing block after the new one is constructed, in accordance with the obligation to limit operations of the existing block, originating from the decision of the Energy Community Ministerial Council regarding emission limitation of certain air pollutants from big furnaces (20.000 working hours in the period 2018-2023).

- Use of **renewable energy sources and co-generation** is insufficient, even though there is a great potential for its use in the state. Coal-lignite reserves, as main fossil energy source are limited, and besides that, total quantity of remaining fossil fuels (oil derivatives, gas) is being imported. Transition to

RES would reduce connection of energy production, respectively consumption with carbon dioxide emissions, and thus with climate changes, therefore the economy would be less dependent on the import of energy, consumption of resources would be reduced, secure supplying improved and technological innovation promoted. RES are still at an unsatisfying level of exploitation and such situation is particularly not advisable in the Mediterranean region, since Mediterranean countries are particularly vulnerable to climate changes, and at the same time possess significant potential for the use of renewable energy (sun, wind, etc.) and can obtain significant savings from rational use of energy. In the last years, activities regarding use of renewable energy sources are becoming noticeable, and it is necessary to intensify them even more.

- Economic and ecological activity must be directed even more towards the increase of raw material and energy productivity, so as to separate as much as possible consumption of natural resources and development, with the aim to reduce the use of raw materials and energy. The Earth Summit in Rio de Janeiro in 1992 set the standards for global policies regarding climate and environmental protection in more equitable world. Twenty years later, main topic of the United Nations Conference on Sustainable Development (2012) was how to make world economies sustainable, whereby climate and energy policy play maybe the most important role in that aspect.

- In comparison to CO₂ emissions, there is **high level of CO₂ emission sinks** (about 90% in 2013). Thanks to high

share of forests and forestry land in overall state territory (69.8 % in 2013), as well as conversion of agricultural into forestry land, exceptionally high level of CO₂ emission sinks is characteristic, which will most certainly help the state in accomplishing international requirements in terms of greenhouse gases emissions reduction and global problem solving. Regardless of high share of state territory covered with forests or forestry land, there is still certain potential to additionally increase that share, which would lead to more positive ecological, economic and social effects.

3.4.2. Way towards resource efficiency

Key requirement of **resource efficiency**²⁴⁹ is to produce more with fewer inputs and to change consumption patterns in order to limit risks connected to resource scarcity and pollution. Implementation of resource efficiency requirements means transition to the development model that potentially retrieves double benefits: it can stimulate the growth necessary to provide new jobs and wellbeing for the citizens, by ensuring quality growth that guarantees sustainable future (and intergenerational equality in terms of access to resources and preserved environmental quality). Preparation of Montenegrin economy for such transformation will enable the state to improve its wealth and wellbeing of its citizens while the level of resource use and related impacts will be reduced. With the introduction of the **concept of resource efficiency and circular economy** into

²⁴⁹ Resource efficiency means sustainable resource management and use (from the moment of their extraction through transport, transformation and consumption to waste disposal).

NSSD as key strategic direction for enabling sustainable growth and development of Montenegro until 2030, we actually define the framework for the introduction of the concept complementary to green economy on which it is rather dependent, as well as for the improvement of implementation of sustainable consumption and production patterns as one of the ways that could lead to improved use of resources²⁵⁰. Key economic sectors for the improvement of resource efficiencies are energy, civil engineering, agriculture and service sector (tourism), and in that context, the following problems can be featured:

- **Energy:** In energy sector we still have high material intensity even though certain decline of -23.1% was registered, resource productivity is one of the lowest ones (only 0.07 € of GDP per ton of invested DMC is achieved), while metabolic rate (reflecting consumption of domestic natural materials per capita) in this sector grew for 19.2%. However, in consideration of a still high rate of material, energy and emission intensity this sector has the highest potential for the improvement of overall resource efficiency of Montenegrin economy. Within energy sector the most consumed ones are energents that have central position and represent

a necessary resource for the renewal of economic activity. For that reason it is rather important, excluding their high emission intensity and harmful environmental impacts, to procure safe supplying of economic actors with these resources.

- For the needs of the project regarding exploration and production of hydrocarbon, the draft of the Report on strategic assessments of environmental impacts for the Program of exploration and production of hydrocarbon in Montenegrin undersea was drafted (December 2015). It analyzed potential impacts of this project on: environment, health and safety, accidental situations, socio-economic impacts and transboundary impacts, then proposed measures for their mitigation and gave proposal for monitoring, as well as recommendations for activities that need to be done prior to the beginning of project realization. During consulting process on this document, one part of competent and interested public expressed significant concerns in respect to the sustainability of exploration and production of hydrocarbon in relation to tourist attractiveness of Montenegrin coastal area, protection of marine biodiversity (especially protected marine areas, valuable habitats and protected species) and seismic stability.

- **Civil engineering** is a sector that has by far the biggest share in domestic consumption of materials. Aside from that, the analysis of resource efficiency indicators indicated bad efficiency of this sector, which is reflected in the increase of material intensity indicators for 43%, reduction of resource productivity for 50% as well as in-

²⁵⁰ At global level, respectively in processes taking place within UN system, somewhat bigger attention is given to the concept of green economy (as well as to sustainable consumption and production), while European policies, especially lately, are more dedicated to the concept of resource efficiency. In both policies and documents, the need to transform economies is recognized so as to ensure development sustainability within the limits imposed by natural environment, which is one of basic requirements of circular economy.

crease of DMC consumption per capita for 25.4%. Being that the decline of gross added values in civil engineering sector was not followed by the decline of DMC indicators and that there was serious deterioration in resource efficiency, this sector should also become one of priority sectors for the improvement of resource efficiency. Research demonstrated that further standardization and improvements and consideration of different options are necessary in order to: stimulate a more resource efficient use of construction materials and production of the very materials, consider options for a longer term use and duration of construction materials, reduce quantities of construction waste, analyze and enable recycling of construction materials that are mainly disposed at waste disposal sites, enable recycling of asphalt, concrete and other materials that are recyclable, apply recommendations regarding construction of buildings with minimal emissions, introduce energy efficient projecting and construction, procure use of construction materials and products with which energy characteristics of buildings are improved, procure adequate facility maintenance, enable and encourage reconstruction of the existing housing stock, ensure more adequate infrastructure planning, procure use of ecological materials in construction.

- **Agriculture:** Separation of domestic consumption of materials from gross added values in agricultural sector during previous years did not happen, which indicates the inefficient and unsustainable consumption in this sector. Namely, even if material intensity declined for 60%, gross added value grew for 90% and neutralized its de-

cline. Given the significance agricultural sector has for Montenegrin economy, together with organic agriculture, this sector should be one of priorities for resource efficiency. Consequently, additional measures and processes are needed that would establish certain standards in this sector when resource efficiency is concerned.

- **Tourism:** This sector, which is characterized by low rates of material intensity, in previous period, had improvement of resource efficiency for 57.4% and increase of metabolic rate for 26.7%. However, it is clear that due to the fact that tourism is rather connected with the rest of service sector but also with other sectors in general, small steps towards tourism greening will have exceptionally big impact on entire economy greening. Tourism sector is a significant consumer of natural materials and producer of carbon footprint- directly or indirectly through accommodation and transport services, food consumption and other. Climate changes and tourism sector have double bond, being that this sector is a significant greenhouse gases producer, while climate changes have back-effect on it. Key areas within which there are many possibilities for tourism greening and resource efficiency improvement are: energy, water, waste and natural values preservation²⁵¹.

²⁵¹ According to the document: ISSP, Transposition of recommendations of UNDP NDHR 2014 into NSSD, Podgorica, April 2015.

On the way towards circular economy through the improvement of waste management system - On the way towards the application of circular economy model for the purposes of improving waste management the following problems can be featured:

Montenegro has not yet made the transfer from **disposal sites to circular economy**. Namely, in order to reduce greenhouse gases emission from the waste, it is necessary to work on replacing biotic materials with recycled waste, as well as on using waste instead of fossil fuels for energy production. Montenegro does not have developed **system of ecological indicators significant for the concept of circular economy**, respectively it needs to be developed: waste production (total waste or share of waste depending on its generation), share of renewable energy sources in overall energy production, waste management (recycling rate), domestic material consumption indicators (DMC indicators, for which an assessment was made for the first time within Human Development Report regarding resource efficiency from 2014), energy consumption indicators, land surface under organic production, direct material input (DMI indicator), domestic extraction indicator (DE indicator), environmental efficiency per sectors, etc.

3.4.3. Sustainable consumption and production

Application of the patterns of sustainable production and consumption is one of important preconditions for achieving resource efficiency. Sustainable Consumption and Production (SCP) means use of services and products for the satisfaction of basic needs, while enabling improvement of the quality of life and bringing to

the minimum the use of natural resources and toxic materials, generated quantities of waste and pollution during service or product life cycle, in order not to endanger the needs for sustainable development of future generations. Even though NSSD from 2007 recognized the need to introduce sustainable consumption and production patterns, there is no more significant progress except that this issue is recognized as significant in the set of adopted strategic documents (Waste Management Strategy, Agriculture and Rural Development Strategy, Energy Development Strategy, Development Directions of Montenegro and other). However, practical mechanisms and instruments for the implementation of sustainable consumption and production patterns are still missing, especially those relating to: application of eco-labels, eco-management and audit scheme (EMAS²⁵²), green public procurement, introduction and verification of clean technologies, eco-design of products, consumer education, assessment of product and enterprise environmental footprint, as well as corporate social responsibility. Instruments for integrated management of products and encouragement of recycling are undeveloped and/or ineffective. Lack of indicators and practice significant for monitoring of the situation in respect to their application is evident, including also thematic indicators of EU Roadmap to a resource efficiency that are relevant for sustainable production and consumption. Contrary to this, it is rather worrying the fact that there are examples of very significant damaging subventions (bearing in mind the size of

²⁵² EMAS (Eco-Management and Audit Scheme) - environmental protection management system and audit scheme established in the EU. Environmental impact management instrument, with the aim to improve environmental quality.

our economy) that enable *status quo* within inefficient patterns of production and consumption and keep captured public resources that could be used in a more efficient and sustainable manner in the long term.

In Montenegro, “**green public procurement**” is not widely used in a way to provide that aside from the prices of products and services, procurements take into account the costs of negative impacts of consumption and production on the environment and social aspects, and within which significant level of public participation in the process of decision making is enabled. In that context it is significant to emphasize that integration of energy efficiency requirements into the processes of public procurement is missing. There is no awareness, preparedness, nor legal and technical knowledge and skill of the officials in charge of the application of the criteria relevant for green public procurement during implementation of tenders for the procurement of products and services without negative social and environmental impacts.

The concept of **social responsibilities**, respectively elements important for the development of social responsibility (SR), is directly integrated into several Montenegrin strategic documents such as National Strategy for Sustainable Development 2007–2012 Action plan, Strategy for Development of Small and Medium Sized Enterprises 2011–2015, Strategy of Cooperation of the Government of Montenegro and Nongovernmental Organizations, so it can be concluded that Montenegro successfully completed the initial phase and created favorable ambience for passing to a higher level of implementation of SR concept in practice²⁵³. Despite

that and the fact that in December 2013 National Social Responsibility Policy was adopted, insufficiently developed awareness on the significance of SR is still evident, lack of financial means in enterprises, lack of culture and habits of enterprises to act responsibly, then lack of knowledge and skills of the management. Main challenges in the implementation of SR policy are connected to the problems of general economic, social and environmental situation, lack of resources, difficulties in application of own commitments, as well as still present lack of comprehension of this concept.

3.5. Problems, weaknesses and disadvantages of governance system for sustainable development

In order to define **problems that characterize institutional and legal framework significant for sustainable development** of Montenegro, relevant national regulations, institutional organization and cooperation mechanisms were analyzed²⁵⁴, both at horizontal, and vertical level of governance system for sustainable development with reference to the principles, goals and priorities of sustainable development defined in: National Strategy for Sustainable Development of Montenegro from 2007, results of Annual Reports on implementation of NSSD, chosen relevant priorities within the process of Montenegrin accession to the European Union, documents drafted within preparation process of national participation at the Summit Rio+20, then UN synthesis of national reports regarding the implementation of sustainable development policy in the context of participation of UN members at the Summit Rio+20. Key **problematic areas of governance system for sustainable development of Montenegrin society and their causes** are established on the basis of:

- assessment of the state of environmental protection, protection of nature and its resources, as well as cultural heritage,

- assessment of the state of economic activities significant for sustainable development,
- assessment of the state of social activities and human resources significant for sustainable development and
- determination of disadvantages, respectively key challenges for further improvement of sustainable development policy.

System of public administration in the context of this strategy means ministries, administration authorities and independent administration authorities²⁵⁵ with competencies for the governance of sectoral policies important for sustainable development of Montenegrin society and for the governance of related administrative control, administrative procedure and functions of national importance, which are thereby budget users. Also, public administration means public enterprises and companies founded by the Government of Montenegro, as well as local self-government authorities and public enterprises operating at local level.

Governance system for the implementation of sustainable development policy of Montenegro is characterized by numerous weaknesses and problems. The existing system of public administration is complex, both in respect to the level of administration (national and local), and in respect to sectoral competencies belonging to numerous ministries and administration authorities they coordinate, as well as local self-government authorities. Even though there is a significant number of established coordination bodies,

²⁵⁴ Ministry of Sustainable Development and Tourism, Analysis of institutional and legislative framework – addendum for revision of NSSD, Podgorica, 2015.

²⁵⁵ In accordance with the Law on public administration (“Off. Gazette ME”, no. 22/08 and 42/11)

at horizontal, but also at vertical level of action (from national towards local), cooperation among departments is not integrated into all processes and activities important for sustainable development. Risk from procedure over-complicating with the absence of compliance of actions and practical application of sustainability principles can be attributed to such complex governance system.

Current practice regarding coordination of public policies drafting often does not include timely substantial consultations on the content of public policies, which are realized early enough so as to avoid possible misunderstandings, opposed goals and competencies overlapping. Consultations are most frequently done about final policy draft, immediately prior to its adoption, which negatively influences the motivation of employees and experts in terms of a higher quality of professional contribution. Also, public policies are rather often implemented without sufficient inter-sectoral coordination which results in their incompliance or insufficiently complied implementation.

Insufficient level of integration of economic, social, cultural and environmental protection goals while striving to achieve fast economic effects, with not as much clearly identified implications on the environment and social development, is also one of significant disadvantages concerning integrated and coordinated reply to challenges of governance for sustainable development. Governance system is characterized by unsatisfactory level of specificity of goals and expected results of public policies, as well as by the lack of preparedness to act in accordance with set goals. Public policies goals are often not followed either by clear indicators for measuring achieved results and performances, or responsibility for (un)achieved performances.

Public administration actions are to a certain extent characterized by insufficient transparency in the process of adopting and implementing of public policies, with rather frequently unsatisfactory regulations in relation to acting procedures. The above stated has as a consequence insufficiently informed and thus insufficiently engaged public.

Strengthening of institutions and organizational restructuring, without adequate capacity of public sector to efficiently realize activities from the area of their competencies, cannot have sustainable performance. Insufficient capacities, primarily human resources, are one of key disadvantages despite the fact that public administration in Montenegro in certain segments is over-dimensioned. Working conditions within the system of public administration and related procedures of promotion and appreciation of achieved results are not based to a sufficient extent on the appreciation of prominent abilities. Due to that, insufficiently motivated staff that has distinguished competency potentials go away or generally do not even start up their engagement. For that reason, governance system did not actually have the opportunity to adequately grow stronger.

Economic activities are not adjusted to sensitivity, respectively vulnerability of the environment. Certain activities such as agriculture (in terms of pollution and resource use) are not sources of significant pressures, but on the other hand it does not even contribute to a sufficient extent to the balance of economic activities and improvement of overall economic performances.

Certain instruments of environmental management are not developed or are insufficiently developed. Unique information

system for the environment is lacking, functional cadaster of environmental pollutants is not established, environmental management system is not applied (EMAS), nor ecological label for products and services.

Certain widely used instruments of environmental management are still facing difficulties in their application (e.g. strategic assessment of impacts on the environment that is unjustifiably required also for lower range plans and assessment of impacts on the environment where primarily qualitative and subjective ways of assessment are used). Coordination between central and local level while using instruments of environmental management is not at a satisfactory level. Efficient support for nature diversification is missing, especially through development of rural areas and application of clean and efficient technologies, respectively for the development of green and blue economic activities.

Insufficient quality of harmonization of public and private interest is also to a certain extent present (either instruments are missing or they are being insufficiently applied). Insufficient dedication to proclaimed goals is evident and lack of established indicators for the monitoring of achieved results, whereas prioritization of short term benefits over long term sustainable development possibilities is present to a certain extent.

Despite the fact that pollution prevention principle is contained, directly or indirectly, in certain number of national regulations, implementation instruments (in cases when they are foreseen) have more preventive than reactive character. . Even though there is a legal basis for the internalization of the costs incurring due to environmental pollu-

tion and natural resources use, compensations due to environmental pollution are not effective. Their administration and collection are not efficient, and they are not established so that they can express real costs and damages caused by pollution and stimulate behavior change of pollutants.

During damage incurrence in the environment, the responsibility of the pollutant was based on the establishment of misdemeanor or criminal responsibility, while taking concrete measures with the aim to have damaged environment returned into its original state, respectively compensate for damaged natural resource was mainly inexistent. In 2015 the new Law on Reliability and Liability for Environmental Damages entered into force and its implementation should procure efficient remediation and rehabilitation of polluted localities. However, the implementation of this regulation will represent a significant challenge.

In Annex I we have the tabulation (tables P I-1, P I-2 and P I-3) of key problems and immediate problem causes, within three pillars of sustainable development - economic development, environment and social development, as well as the resume of problems and causes in the implementation of regulations and functioning of institutional framework significant for sustainable development (tables P I- 4, P I-5). Furthermore, with the application of DPSI method (drivers–pressures–state–impacts), the analysis of drivers, pressures, state and impacts of the use and management of human, social, natural and economic resources was prepared (in Annex II tables P II-6, P II-7, P II-8, P II-9). Problems determined in such a way require reform of the existing system. In 2012, during celebration of 20 years of the establishment of ecological state of Monte-

negro²⁵⁶ National Council for Sustainable Development assessed as necessary to introduce reforms in functioning of competent administrative authorities and public institutions, in order to organizationally, professionally and technically capacitate public, as well as municipal authorities so as to make prompt and quality implementation of sustainable policy and related expert based activities in accordance with international standards. In that sense, particularly worrying are bottlenecks during implementation of sustainable development policy, primarily capacities for the implementation of programs that integrate social, environmental and economic aspects of development, then program and project activities that require common attention and action at national and international level. It is necessary to provide efficient horizontal and vertical coordination and strengthening of institutional capacities of the existing management system, strengthening of cooperation and coordination among social actors, efficient inclusion of the public in the process of decision making, use of available knowledge, then professionalism and strengthening of the integrity of experts. Appreciating knowledge and skills, mobilizing potentials of different social groups and enabling benefits to reach everybody are prerequisites of sustainable development. Strengthening available human resources - knowledge and skills and social capital - mutual relation and cooperation among social actors, must be central issues of governance for sustainable development. Strengthen-

ing human resources must be followed by adequate organizational restructuring and establishment of capacities of public administration institutions. Contemporarily, improvements of (institutional) governance system for sustainable development are not possible without contemporary investment in the improvement of the capacities of officials and experts for efficient and effective accomplishment of tasks.

As per the intensity of their impact, problems can be grouped as follows:

- Unsatisfactory efficiency of cross-sectoral coordination functioning with insufficiently harmonized sectoral policies, both among each other, and with sustainable development policy.
- Insufficiently clearly divided or overlapping competencies of subjects responsible for the implementation of sectoral policies.
- There is unsustainable attitude of key social actors towards development, caused by inadequate education and value system, low trust in institutions of political system and rule of law, inadequate organizational culture and inadequate attitude towards healthy life, culture and cultural heritage, then unequal regional development. This all for its consequence has low level of human and social capital, thus social cohesion.
- Non harmonized (to a smaller or bigger extent) of economic activities with the aims of sustainable development (forestry, hunting, energy, industry, mineral raw material exploitation, marine economy, traffic, spatial planning, civil engineering, tourism), relatively high level of domestic material con-

256 National Council for Sustainable Development, Analysis of achievements and challenges of the ecological state (20 years of the ecological state), Government of Montenegro, August 2011

sumption (DMC) and low level of resource productivity (RP).

- Insufficiency of valid regulations with which economic activities are regulated from the aspect of application of environmental protection instruments, including reduction of pollution and reduction of damages from natural and anthropogenic hazards. They are mainly focused on the identification of environmental vulnerability and natural resources at the level of principles.
- Unsatisfactory capacities within public administration authorities in charge of the implementation of sustainable development policy (insufficient number of employees with adequate professional profile for carrying out activities regarding sustainable development, majority of authorities (about 90%) do not have an officer in charge of activities regarding sustainable development).
- Insufficient efficiency while implementing regulations, whereas institutional framework for the implementation of regulations must be significantly improved;
- Development of instruments for environmental management is still not finalized, while during their implementation numerous problems and weaknesses are manifested.



4





Strategic goals and measures

Strategic goals of the National Strategy for Sustainable Development by 2030 rely on sustainable development goals as defined by the UN 2030 Agenda for Sustainable Development adopted by the UN General Assembly on September 25, 2015.

Global sustainable development goals and tasks are integrated and indivisible, global in their nature and universally applicable. They thereby take into account different national realities, capacities and levels of development and respect national policies and priorities.

Sustainable development goals

- Goal 1.** End poverty everywhere in all its forms
- Goal 2.** Put an end to hunger, achieve food safety, improve nutrition and promote sustainable agriculture
- Goal 3.** Procure healthy life and promote well-being of all people of all ages
- Goal 4.** Procure inclusive and quality education and promote lifelong learning for everybody
- Goal 5.** Achieve gender equality and empower all women and girls
- Goal 6.** Procure access to and sustainable management of water and sewage for everybody
- Goal 7.** Procure access to affordable, reliable, sustainable and modern energy for everybody
- Goal 8.** Promote continuous, inclusive and sustainable economic growth, full and productive employment and decent work for everybody
- Goal 9.** Build resistant infrastructure, promote inclusive and sustainable industrialization and encourage innovations
- Goal 10.** Reduce inequality within and among countries
- Goal 11.** Make cities and human settlements inclusive, safe, resistant and sustainable
- Goal 12.** Procure sustainable patterns of consumption and production
- Goal 13.** Take urgent action in fighting against climate changes and their impacts *
- Goal 14.** Preserve and sustainably use oceans, seas and marine resources for sustainable development
- Goal 15.** Protect, restore and promote sustainable use of terrestrial ecosystems, sustainable management of forests, suppress occurrence of desertification, stop and reverse degradation process of land and stop biodiversity loss
- Goal 16.** Promote peaceful and inclusive societies for sustainable development, procure access to justice to everybody and build effective, responsible and inclusive institutions at all levels
- Goal 17.** Improve implementation means and restore Global partnership for sustainable development

* Recognizing that the United Nations Framework Convention on Climate Change is primary international, inter-governmental forum for negotiations regarding global response to climate changes.

Specific tasks are defined as aspirational and global, while each Government establishes its own specific tasks guided by the global level of ambition, however taking into consideration national circumstances. Each government will decide how to introduce aspirational and global goals in national planning processes, policies and strategies. It is important to recognize the connection among sustainable development and other relevant ongoing processes in the field of economy, development of society and environmental

protection¹.

Strategic goals of the National Strategy for Sustainable Development by 2030, with accompanying measures and sub-measures, are defined as answer to problems and weaknesses identified in the implementation of national policies for sustainable development, while bringing them in connection with national responses to challenges of the implementation of global sustainable development goals by 2030.

1 UN General Assembly, Transforming our world: the 2030 Agenda for Sustainable Development, A/Res/70/1, 25 September 2015;

NSSD strategic objectives focus on the problems that are the essence of key unsustainable development trends identified in reports on the implementation of the NSSD from 2007 and evaluations regarding the implementation of recommendations and conclusions of the National Council for Sustainable Development, Climate Change and Integrated Coastal Zone Management. Solving these problems requires:

- strategic and normative harmonization of public policies and regulations,
- formulation of public policies through application of mechanisms of intersectoral cooperation, respectively implementation of public policies by realizing strategic tasks through integral overview of problems, coordinated cooperation of sectors and achievement of synergy effects,
- emergency responses being that achievement of sustainable economic, social and territorial cohesion of the development of Montenegro depends on the successfulness of problems solving,
- application of coordination mechanisms in addressing intersectoral conflicts at strategic (sectoral and horizontal strategies, plans, programs) and operational level (projects),
- greater efficiency, effectiveness and transparency of the processes of governance.

Starting from the assessment of the state of national resources within four-dimensional concept (human, social, natural and economic resources) and institutional organization that supports sustainable development of Montenegrin society, as well

as from the analysis of key unsustainable trends and needs of sustainable development by 2030 (DPSI approach- drivers, pressures, state, impacts), this chapter defines priority themes and strategic goals of sustainable development of Montenegro structured as responses (R-Responses) to problems of sustainable development of Montenegro, in order to improve current state and enable the achievement of global sustainable development goals.

Priority themes of the NSSD by 2030 are:

4.1 Improvement of the state of human resources and strengthening of social inclusion

4.2 Support to values, norms and behavior patterns significant for the sustainability of the society

4.3 Preservation of natural capital

4.4 Introduction of green economy

4.5 Governance for sustainable development

4.6 Financing for sustainable development.

In relation to problems, weaknesses and disadvantages identified from the aspect of the use and management of human, social, natural and economic resources, as well as from the aspect of governance for sustainable development, this chapter gives answers to identified unsustainable development trends by defining strategic goals and measures within time horizon of the NSSD by 2030, respectively from the aspect of financing for sustainable development in the fifth chapter. With further elaboration of strategic measures in the Action Plan, sub-measures, indicators for the monitor-

ing of progress in their implementation and expected target outcomes in 2030 were developed.

Priority themes, strategic goals and measures of the National strategy for sustainable development by 2030 represent the response of Montenegro to challenges and commitments brought by the implementation of the UN 2030 Agenda for Sustainable Development. A coherent set of measures and sub-measures of the NSSD by 2030 sets the platform for transposition of global targets and indicators of sustainable development into national framework, so as to connect, as much as possible, progress monitoring in realization of the NSSD Action Plan by 2030 and progress monitoring in implementation of the UN 2030 Agenda for Sustainable Development. The complexity of global sustainable development goals and the number of their associated targets and indicators of sustainable development cause a comprehensive analysis of complex national institutional system in order to establish long-term stable and functional system of monitoring and reporting on the implementation of sustainable development policy. As stated in point 4.5.4, global goals and tasks are for their most part transposed into national framework of the NSSD by 2030, but to a certain extent the obligation of their transposition is determined through harmonization of key national policies, programs and plans with the NSSD by 2030 and the UN 2030 Agenda for Sustainable Development. Therefore, in 2017 it is necessary to determine the relevance of global tasks of sustainable development in terms of their integration into sectoral policies, programs and plans. Also, in 2017 disadvantages at horizontal and vertical level of governance should be determined in terms of transposition of targets and indicators of sustain-

able development into national context, so that harmonization of the existing relevant strategies, programs and plans with the UN 2030 Agenda for Sustainable Development could be completed by 2018.

4.1. Improvement of the state of human resources and strengthening of social inclusion

Human capital, but not capital in the classical sense, is key factor that connects innovations, competitiveness and economic growth in the 21st century. Growth of human capital is not limited only to positive economic effects, but it improves levels of health and participation in the community and increases the chances of employment. Human capital is developed when a country is investing in the improvement of life quality of people through public system of education, health and social programs, employment programs and additional education of employees who contribute to an economically more powerful and socially healthier society.

It is necessary to ensure that there is equitable and universal access to quality education, health and social care at all levels, and to create conditions where all children and people in Montenegro can achieve their potential in a dignified and non-discriminatory manner and in a healthy environment. Consequently, citizens should be able to live prosperous and fulfilling lives and it would be possible to create conditions for sustainable, inclusive and continuous economic, social and technological progress.

4.1.1. Improvement of demographic trends and reduction of demographic deficit

Identified problems, weaknesses and disadvantages in terms of the state of human re-

sources imply finding answers through the achievement of the strategic goal relating to the improvement of demographic trends and reduction of demographic deficit.

Demographic picture of Montenegro is significantly altered as a result of the trends of aging and slower population growth, as well as of internal and external migrations. According to projections of the Statistical Office MONSTAT, population of Montenegro in 2031 may be moving in the interval from 642,000 (variant of high fertility and growth of 3.5%) to 578,000 (constant variant and reduction of population of 6,8%). Given the trend of slow population growth in the period from 2011 to 2015, the variant of constant fertility and expected population growth by 2030 by 1.4%, or 6.5 thousand people, compared to 2015, could represent a realistic projection in the context of achieving strategic goals of this strategy, respectively sustainable development goals by 2030. Population aging is making Montenegro face growing health care expenses, slower growth of human capital, growing gap between unproductive and productive population, and ultimately it could lead to the reduction of aggregate demand and slowing down of technological development.

It is clear that sustainable development of Montenegro is jeopardized by mentioned negative demographic trends, therefore it is necessary to improve demographic trends and reduce demographic deficit, seeing it as a strategic goal. Thus defined strategic goal can be divided into two components – population aging and migration. For that reason, two measures are defined relating to the above components – prevent and mitigate the effects of population aging, as well as prevent and mitigate the effects of migration. At the 2011 census, population growth was the lowest in the last twenty years, there

is an absolute increase in the number of dead, number of live born children at annual level has been consistently below the one achieved in 1991, while fertility of Montenegrin society is a complex phenomenon affected by a set of biological, economic, social and psychological factors. Population aging will be one of the most important characteristics of demographic development, therefore population of all regions of Montenegro by 2060 could be demographically older than fifty years ago. In order to prevent and mitigate negative effects of those phenomena, a comprehensive set of sub-measures is required.

Starting from the assessment of possible scenarios of demographic trends, the second chapter assesses that due to the trend of slow population growth in the period from 2011 to 2015, the variant of constant fertility and expected population growth by 2030 by 1.4%, or 6.5 thousand people, compared to 2015, could represent a realistic projection in the context of achieving strategic goals of this strategy, respectively sustainable development goals by 2030. Realization of this scenario will be conditioned to a significant extent by the success of the implementation of strategic goals and measures defined by the National Strategy for Sustainable Development by 2030, primarily those that are relevant for the introduction of green economy, improvement of the state of human resources and strengthening of social inclusion, support to values, norms and behavior patterns significant for the sustainability of the society.

Population emigration is a phenomenon that accompanied Montenegro throughout the 20th century. Moreover, significant internal migrations are present, so the share of population of northern region in the total

population of Montenegro is continuously decreasing since the mid-twentieth century, while the share of central and coastal region increased. One of the ways to ensure adequate level of labor force offer in the future is to complete domestic offer with the labor force from abroad, i.e. to ensure positive and growing migration balance. It is necessary to create a comprehensive migration strategy at national level, as well as to realize a set of sub-measures. Within EU integration Montenegro must not shy away from immigration flows, but it is necessary to conduct deliberate cultural policy, which will protect the original cultural and identity values and parts of tradition that keep pace with the concept of sustainable development.

In accordance with the stated, the strategic goal in this area **“Improve demographic trends and reduce demographic deficit”** is necessary to be achieved through the implementation of the following **measures**:

- Prevent and mitigate the effects of population aging, SDG 17(17.14) and SDG 8 (8.3),
- Prevent and mitigate the effects of migration, SDG 10 (10.7).

Stated strategic goal, through the measure and its associated sub-measures relating to prevention and mitigation of the effects of population aging, will contribute to the achievement of global sustainable development goal 17 (17.14) which refers to “improvement of policy coherence for sustainable development”, in terms of preserving human capital as a precondition of development per se and as a key development factor. Furthermore, structural reforms in the area of pension system and labor market will reduce pension deficit in the budget

of Montenegro and strengthen sustainable public finance, which will create additional funds for stimulating employment growth and creating new jobs which is in line with global sustainable development goal 8 (8.3).

Stated strategic goal, through measures relating to prevention and mitigation of the effects of migration, will contribute to the achievement of global sustainable development goal 10 (10.7) – Enable quiet, safe, regular and responsible migrations and mobility of people, also through the implementation of planned migration policies that are well managed.

4.1.2. Improvement of the health of citizens of all ages and reduction of inequalities in health

For the purposes of solving problems in the sphere of human resources within the NSSD by 2030, the priority is to achieve the strategic goal related to the improvement of the health of citizens of all ages and reduction of inequalities in health, with focus on children.

Insufficiently developed health education and inadequately oriented health care condition the necessity of having higher expenses for clinical medicine. Due to insufficient focus on disease prevention and health promotion, the use of existing resources is insufficiently efficient. Chronic non-communicable diseases lead to disability, premature death and poor quality of life of the working population, which negatively affects labor market and economic potential of the country. An additional problem is growing gap of inequalities in health of different population groups.

In order to promote physical and mental health and well-being of the population, thereafter extend life expectancy of all citizens, it is particularly important to enable information and health education to the population in connection with leading health problems, as well as to competently meet prevention needs, including disorders in behavior and development of children and young people.

For that reason, sustainable development of Montenegro by 2030 requires improvement of health, as a factor of human capital, to the greatest extent possible within the existing possibilities. That is the reason why the strategic goal of the NSSD by 2030 is “Improvement of the health of citizens of all ages and reduction of inequalities in health”, and it is necessary to be achieved through the realization of the following priority measures:

- Improve health care for mothers and newborns and other vulnerable and endangered groups of population SDG 3 (3.1, 3.2 and 3.7),
- Put the focus on healthy life promotion, disease prevention and control SDG 3 (3.4, 3.5 and 3.6),
- Improve health system efficiency and health care quality SDG 3 (3.8 and 3.c).

Achievement of this strategic goal of sustainable development of Montenegro respectively its accompanying measures and sub-measures will contribute to the achievement of the third global sustainable development goal, which refers to the provision of healthy life and promotion of well-being for all people of all ages.

4.1.3. Providing inclusive and quality education and promotion of lifelong learning opportunities for everybody.

In the area of human resources as per the NSSD by 2030 the priority is to achieve the strategic goal relating to the provision of inclusive and quality education and promotion of lifelong learning opportunities for everybody. Education, improvement of skills and creation of new ideas are crucial for the development of human capital and are main drivers of economic development. Due to the lack of infrastructural capacities in some municipalities, as well as inaccessibility of kindergartens due to distance or financial barriers, great number of children in Montenegro does not attend pre-primary education which can have far-reaching negative socio-economic effects on the society. At the same time, education system is still not adequately preparing young people in Montenegro for further successful schooling, future profession, private and social life, as confirmed by poor results on PISA testing. Possibility to develop human capital and economic potential of Montenegro is additionally reduced by higher education system whose quality is not at satisfactory level, and that still has unsolved lifelong learning issue.

Procurement of inclusive and quality education at all levels – pre-primary, primary, secondary, tertiary, technical and vocational is a prerequisite of sustainable development. It is necessary that all people, without any restrictions, have access to lifelong learning opportunities that will help them acquire knowledge and skills necessary to seize opportunities and fully participate in the society.

Procure inclusive and quality education and promote lifelong learning opportunities for

everybody is the strategic goal that was established to make sustainable development of Montenegro possible. For the achievement of this strategic sustainable development goal of Montenegro realization of the following measures is a priority:

- Procure comprehensive, inclusive and quality pre-primary education, SDG 4 (4.2 and 4a),
- Improve primary and secondary education, SDG 4 (4.2, 4.6 and 4.7),
- Improve educational and scientific component in higher education, SDG 4 (4.3),
- Improve conditions for lifelong learning, informal education and adult education, with the focus on endangered groups, SDG 4 (4.5).

Achievement of this strategic goal of sustainable development of Montenegro respectively its associated measures and sub-measures will contribute to the achievement of the fourth global sustainable development goal.

4.2. Support to values, norms and behavior patterns significant for sustainability of the society

By adopting the 2030 Agenda for Sustainable Development, world leaders committed themselves to build a world of universal respect for human rights and human dignity, rule of law, justice, equality with no discrimination, in which race, ethnicity and cultural diversity are respected, as well as a world of equal opportunities that allow full achievement of human potentials and contribute to common prosperity, a world investing in our children and in which every child grows in an environment free of violence and exploitation, in which every woman and girl enjoys full gender equality and in which all of legal, social and economic barriers to their empowerment are removed, in which children have access to justice when their rights are violated or when they are denied to exercise their rights, just, equitable, tolerant, open and socially inclusive world in which the needs of the most endangered ones are met.

Starting from the roadmap set in such a manner, in relation to weaknesses and problems identified in the management of social resources, this strategy defines strategic goals of the management of social resources of Montenegro by 2030 for the purposes of providing necessary partnership and cooperation of all actors in joint creation of a world that is being sustainably developed. In this way, Montenegro will act towards the achievement of goals and tasks defined by the 2030 Agenda for Sustainable Development.

4.2.1. Active attitude of key actors towards development sustainability

Family as traditionally fundamental cell of the society should not be abandoned but it should be additionally strengthened and conditions should be ensured so that adapted to modern circumstances it can remain the support to sustainable, tolerant and strong human resources. Family should not be a place of coercion, but a place of support where young generations socialize in a way to affirm full potential of every individual, but also to communicate the value of interconnected, solidary and sustainable society. Type of family that best suits an individual should be a matter of choice, and the family itself a place of protection and support, not fear and coercion.

In order for a family to be a choice, it is necessary to educate young people about the possibilities of family planning and to provide informed and non-judgmental environment for them to realize their wishes and plans. The family that is not a product of choice of individuals creating it has significantly lesser chance of becoming a strong support to healthy development of an individual.

Aside from that, it is necessary to fight against prejudices and affirm alternative forms of family through information campaigns. Especially in the past, but to a large extent today, individuals who did not come from traditional families would be judged by the rest of the society and very often isolated. Thus caused damages relating to healthy development of an individual and solidarity at the level of wider social group are immeasurable.

Modern society is characterized by the conflict between efforts of individuals to organize their environment in a way that most adequately reflects his and her needs and opportunities, and pressures of traditional surroundings to uniformly organize everybody's life. A sustainable society is a tolerant society in which every individual is enabled to maximize his/her potential and happiness and therefore increase the potential of the society itself.

In the basis of children's rights is the need to enable every child to grow up in a family environment. This primarily means support to biological parents to take care of their children. If this, despite the support to the family, is not possible, or is not in the best interest of the child, an alternative environment should be provided. In providing alternative environment, preference should be given to growing up in a foster family – foster care as primarily short-term form of protection or permanent measure such as adoption, depending on the best interest of the child. Placing a child in an institution should be the last measure and should last as short as possible, and the institution itself should be of small capacities so as to simulate family environment. This requires improvement of working methods with vulnerable groups and development of a set of social and child protection services.

Aside from that, it is important to develop efficient support system for children with disabilities and their families, in order to ensure that children with disabilities can exercise all their rights and their full potential.

It is important to recognize the rights of same-sex communities in accordance with generally accepted international standards. Educational campaigns should be the influ-

encing factor that will ensure that stigma and therefore discrimination that accompanies alternative family forms, for example, one member families, single-parent families, partnerships without marriage and similar, is completely eliminated and eradicated. Special threat to the family and healthy development of individuals within it is violence. Based on previous analysis of current situation from the aspect of this problem, it can be assessed that the situation is more than worrying. Although it is very difficult to be detected, domestic violence, according to available yet scarce official data and measured perceptions, is one of urgent problems of Montenegrin society. In order to fight against this problem, an extensive cooperation among institutions is required with the aim to prevent the phenomenon itself and offer effective protection and support to victims of domestic violence.

Through affirmation of tolerant and modern family and realization of preconditions for healthy development of an individual within the family, Montenegro will give its contribution to the achievement of global sustainable development goals 3, 5 and 16.

Aside from family support, for a society to be sustainable it has to deal with all forms of discrimination. Gender discrimination is one of the most important themes of the UN 2030 Agenda for Sustainable Development to which the fifth goal is dedicated. Although in the past period significant progress has been made in this field, Montenegro needs to continue with the elimination of various less visible forms of discrimination in terms of gender. In this sense, it is necessary to adopt gender-sensitive regulations and policies, but also work on political and economic empowerment of women in the period to come. Only as equal social subjects,

women can exercise their full potential and thus contribute to sustainable development of the whole community.

A sustainable society can only be the one in which understanding, tolerance, mutual respect among cultures are cherished as well as ethics of global citizenship and shared responsibility. Therefore, it is necessary to eliminate all forms of ethnic and religious discrimination and work on building up of a society in which diversity is a potential, not a threat. In order to build up such a society it is necessary to strengthen trust and solidarity among different ethnic and religious communities, socialize new generations on the basis of that trust and procure conditions for everybody to develop to their full potential while preserving their uniqueness.

Respect and tolerance towards diversity, also in regard to sexual orientation, should be one of the pillars of sustainable society. Therefore, it is necessary to work on the improvement of general social ambience for the acceptance of LGBT population, but aside from that to adopt a set of policies that will improve the quality of life of this community and their quality integration into the society.

In order for the community to function harmoniously, it is necessary to make further efforts to integrate on an equal basis those who are therein prevented due to infrastructural reasons and stigma and neglect – people with disabilities and older people. Namely, these two categories of persons are in the 2030 UN Agenda for Sustainable Development identified as “endangered”, therefore special commitment in reference to the undertaking of further effective measures in accordance with international law is expressed, as well as in reference to the elimination of obstacles and constraints,

strengthening of support and meeting of everybody's needs. When it comes to this category of population, in addition to the elimination of the existing stereotypes and prejudices, it is necessary to adjust the sensitivity of issues and regulations and policies in order to respond to the challenge of full integration of everybody into the society.

Through the elimination of gender, ethnic, religious, sexual discrimination and the one in terms of years or health status, Montenegro will give its contribution to the achievement of global sustainable development goals 3, 5, 10, 11, 16.

One of the basic principles of the establishment of sustainable development goals is inclusiveness. Therefore, its definition was preceded by extensive consultations with citizens and governments worldwide so as to have it defined as good and as efficiently as possible. Montenegro as well was part of this process from the very beginning. This bottom-up approach itself is promoted by the very process of adoption of sustainable development goals, as a real way in which the world should articulate its interests and requirements. In this sense, development of civil activism in the context of non-governmental organizations, but also informal groups, should be one of the important measures with which active attitude of key actors towards the planning of the future will be ensured. In this case, these actors are citizens themselves.

It is very important to normatively and in practice develop mechanisms on the basis of which citizens will be involved both in the planning of future policies in all areas of social life, and in the monitoring of their implementation.

In this way, Montenegro will give its contribution to the achievement of global sustainable development goal 16.

In the context of stated assessments, the strategic goal **“Stimulate active attitude of key actors towards sustainable development”** should be achieved through the realization of the following measures:

- Provide preconditions for healthy development of an individual within the family, SDG 3 (3.1, 3.2, 3.7), SDG 5 (5.2, 5.3 and 5.6), SDG 16 (16.1, 16.2),
- Eliminate gender discrimination, SDG 5 (5.1, 5.4, 5.5, 5a, 5b and 5c),
- Eliminate ethnic and religious discrimination, SDG 10 (10.2, 10.3), SDG 16 (16.7, 16.9 and 16b),
- Eliminate discrimination of LGBT population, SDG 3 (3.3) and SDG 16 (16b),
- Eliminate discrimination of persons with disabilities, SDG 10 (10.3), SDG 11 (11.2),
- Eliminate discrimination of older people, SDG 3 (3.8),

Support articulation of interests of citizens through activities of non-governmental organizations and informal groups SDG 16 (16.07 and 16.10).

4.2.2. Development of value system in accordance with community sustainable development goals

Any change, especially the normative one, is not sustainable if it is not accompanied by the change in values. Only if values correspond to corresponding type of political or

social system it is possible to expect that the system will survive, which is the key to sustainability. Therefore, in order to build up a sustainably developing society, sustainable values need to be built up that will determine human behavior without the need for external coercion. Even though value system is something difficult to be defined, and even harder to enact, sustainable and equitable society is certainly based on universal values established on the concepts of human and children's rights. A set of values can be obtained from them, such as responsibility, solidarity and empathy, trust, respect, etc.

In order for Montenegro to develop itself as a sustainable community, it is necessary to build up a functional multiethnic society in which there will be mutual trust and tolerance among the members of different communities. The fact that there is a large number of different ethnic and religious groups living in it represents the wealth and great potential of the country. It is necessary to work on the establishment of Montenegrin civil identity while respecting the richness of ethnic and cultural differences that exist in it. In order to achieve this, it is important to lead active educational and cultural policy directed towards consensus achievement regarding elements of Montenegrin civil identity. Also, it is very important to monitor ethnic distance and react in case of its possible increase. This goal represents a challenge in the modern globalized world in which identity differences themselves serve to channel dissatisfaction, but for Montenegro as multiethnic state, it is one of the key issues of sustainable development.

Another key value of sustainable society is solidarity. One of the basic principles regarding the achievement of sustainable development goals, as defined by the Agenda,

is partnership, and the foundation of this partnership is strengthened by global solidarity. This is the value that is deriving from strong social capital and that is necessary in order to equitably perform redistribution and support those parts of the society that need the support at a certain moment of time. Solidary society is an equitable society that through joint action of its members, in accordance with its capacities, procures to everybody conditions for quality life, worthy of man. In order to ensure sustainable development of the society it is important to develop not only solidarity with the members of its own community but with entire humanity.

Finally, in order to make institutions effective, responsible and inclusive, as defined by sustainable development goal 16, it is necessary to develop among people values of personal responsibility, and consequently promote the principle of meritocracy within the system of achieved progress in all spheres of the society. Aside through adequate attitude of socialization agents (family and school) this is also reached through the introduction of transparency as a working principle of institutions.

In the context of the stated, achievement of the strategic NSSD goal “Develop value system in accordance with community sustainable development goals” needs to be seen as a priority and reached through realization of the following measures:

- Build up multiethnic civil society with high level of mutual trust and tolerance, SDG 10 (10.3) and SDG 16 (16.6),
- Stimulate social solidarity, SDG 16 (16.6),
- Strengthen meritocracy and responsi-

bility as basic principles of social functioning, SDG 16 (16.6).

With these measures Montenegro will give its contribution to the implementation of sustainable development goals 10 and 16, respectively reduction of inequalities and promotion of peaceful and inclusive society for sustainable development, procure to everybody access to justice and build up effective, responsible and inclusive institutions at all levels.

4.2.3. Development of country as an efficient rule of law

Development of efficient institutions in which citizens have high level of trust provides legitimacy of made decisions and thus sustainable evolutionary community development. Societies that went through or are going through transition are facing many challenges in terms of the establishment of institutions. On one side, institutions are designed and established following the model of desired system according to which the society is transforming. On the other side, old behavior patterns and matrices usually demonstrate high resistance to changes and prevent efficient transformation. It is a great challenge to establish institutions with integrity in which citizens will trust during this process. In order to establish this trust, great responsibility belongs both to institutions themselves and political elites that are supposed to constitute general social consensus on democratic political system, regardless of certain divisions (political and identity) around which daily policy is being made.

Aside from that, we need to work on the strengthening of institution capacities, but also on the improvement of the quality of

their work and thus their integrity. Consequently, general procedural consensus should be created, which will enable that all issues found in social agenda are solved as per previously defined procedures in which all actors believe and whose outcome at the end of the process they will respect. In case there is general consensus of all participants regarding solving procedures of problems and conflicts in the society, the society itself is being developed sustainably and evolutionary.

Crime, organized crime, corruption, and recently also terrorism, represent serious challenges and threats for modern states. Most frequently states cannot adequately respond to these challenges on their own, but wider internal-social as well as international partnership is needed, in order to eliminate these phenomena or at least bring them to a minimal possible level.

Corruption, as the abuse of public resources for private purposes, as defined by Transparency International, is most effectively fought with transparency and strengthening of public sector integrity. No political community and no society in the world is immune to this extremely harmful phenomenon in relation to which the price paid by the society significantly exceeds the benefit this individual is obtaining through corruptive behavior. This does not absolve of responsibility rather additionally obliges everybody to fight it with all available means, in particular with effective, responsible and transparent institutions.

Organized crime threatens peace and security of entire humanity, as very frequently crossing several national borders with its harmful effects. Just as with corruption, it requires determined fight at national level,

but also high level of cooperation among institutions at international level, in order to suppress and eliminate this phenomenon through exchange of information and joint actions.

Terrorism is not a new threat to humanity, but it is becoming greater threat to global peace, which makes coordinated fight and action of everybody at national and international level a significant priority. In that sense it is particularly important to work on prevention of terrorism and especially on radicalization and recruitment of individuals for terrorist purposes at national level.

As priorities for the achievement of the strategic NSSD goal **“Develop country as an effective rule of law”** the following measures are featured:

- Strengthen trust of citizens in democratic political system and its institutions, SDG 16 (16.6.),
- Provide conditions for the elimination of corruption, organized crime, crime and terrorism, SDG 16 (16.1, 16.3, 16.4, 16.5, 16.6, 16.7, 16.10 and 16a).

With their realization, Montenegro will give its contribution to the achievement of sustainable development goal 16, especially in the part regarding procurement of universal access to justice and establishment of effective institutions.

4.2.4. Overcome managerial deficit problem and strengthen corporate social responsibility

Organizational culture is an important factor of understanding processes and performances of a company, and it represents an

important managerial mechanism on the basis of which managers can direct activities and behavior of their employees towards the achievement of company goals. Theory demonstrated, and practice confirmed that efficacy of a company partly depends on organizational culture. National culture is one of the factors that influences organizational culture forming. Insufficient level of entrepreneurial spirit, low level of professionalism of managerial structures and employees, deficit of quality managers and undeveloped corporate management culture are partly the result of “cognitive matrix” in Montenegro. All of the above is being negatively reflected on the efficiency of Montenegrin companies. Companies that rather often neglect the aspects of corporate social responsibility by taking into account only the economic aspect of business activities, have particularly significant impact on the society. People are genuinely interested in the way company treats them, the environment and the society in general. Corporate social responsibility (CSR) represents a concept on the basis of which companies adopting it consciously and voluntarily go beyond their primary function of acquiring and distributing profit and make positive impact on their working, social and natural environment. Essentially, CSR represents the awareness regarding new position and importance that companies have in modern, global society and the responsibility deriving from it.

Corporate social responsibility can be seen as business success, measured not only by realized profit but also by achieved balance among economic and social goals as well as those related to the environment in a way that is beneficial for citizens, local communities and society as a whole. CSR means company decision to go beyond compliance

with minimal legal requirements and obligations resulting from collective agreements. Final goal of CSR are not companies that assume the responsibility of taking care of the society, rather organize their activities in a way that their positive effects on the society and environment become the accelerator of their business success in the long term.

Activities regarding introduction and promotion of social responsibility principle and practice in Montenegro have been intensified from the middle of the last decade, and especially in the last couple of years. Activities were organized in a way to involve all relevant actors from public, civil and business sector. Elements relevant for the development of CSR are included in legal and strategic framework, so it can be said that Montenegro has successfully completed the initial phase and created favorable ambience for the passage to a higher level of implementation (see connection with global task 4.6).

Low level of professionalism of managerial structures and employees, undeveloped corporate management culture, as well as insufficient application of the concept of corporate social responsibility would be negatively reflected on sustainable development of Montenegro in future, therefore the strategic NSSD goal by 2030 is “Overcome managerial deficit problem and strengthen corporate social responsibility”. This goal can be divided into two components – the first, which treats innovative and entrepreneurial potentials of Montenegrin companies and the second, which relates to social responsibility. In this regard, the priority is to realize the following measure – increase innovative and entrepreneurial potential of the economy. Measures for the realization

of the second component are defined by the strategic goal 4.6. In this way, Montenegro will give its contribution to the achievement of the global sustainable development goal 8 (8.3).

4.2.5. Stimulate employability and social inclusion

The first goal of the Agenda for Sustainable Development refers to the fight against poverty and significant reduction or even elimination of this phenomenon in its extreme form. In that sense, Montenegro should work on the reduction of the number of persons who are either poor or at risk of poverty. Generation of new cases of poverty is particularly harmful for the development of a society.

Basic precondition that needs to be realized in order for the society to effectively combat poverty is sustainable and balanced economic development. Separate part of this strategy is dedicated to economic development itself, but in this part, the necessity to create stable macroeconomic ambience that will create preconditions for dynamic and sustainable economic growth should be indicated. On the other hand, the state should promote those policies that lead to development and innovative approach in reference to creation of new jobs.

In order to reduce the existing and prevent generation of new cases of poverty, on one side it is necessary to increase employability of population and on the other to develop social assistance services with which occurred negative circumstances can be mitigated. When it comes to poverty, NSSD goal by 2030 is complete elimination of extreme poverty and halving current share of persons who are in state of absolute poverty (according to the

last data there are 9.8% of people in Montenegro below absolute poverty line).

Special attention should be given to systematic approach to formalization of jobs and elimination of informal employment. Solving of this problem, as recommended by the National Human Development Report from 2016 should not be approached only through repressive measures so additional damage is not created by the fact that one part of informally employed would become inactive, which would only increase the risk of poverty. On the contrary, the problem needs to be addressed through a combination of systematic and long-term planned measures that will include more actors. Recommendations on this problem solving, formulated by UNDP expert team, are the following: education system needs to be inclusive, quality and efficient; health care should be more accessible, more quality and more efficient; incentives for formalization within social assistance system should be changed; regulatory framework should be incentive in terms of formalization; labor legislation should be more flexible; public sector needs to be more efficient and "more equitable"; tax policy should be in function of the formation of preconditions for the creation of new jobs and gradual formalization; improve activities of inspection authorities and enforcement of sentences; instead of deterrence, the emphasis should be given to education and creation of the culture of trust.

The next priority is active employment policy. The state should lead active employment policy while enabling quality education that will start from pre-primary level, through professional capacitating and lifelong learning, so that labor could make progress in accordance with the needs of labor market and be competitive nationally and beyond.

Social exclusion is defined as a process in which individuals are pushed to society margins and prevented from participating in economic, social and cultural trends with their full capacities. Therefore special attention should be given to this problem, particularly with regard to mapping of people who are at risk of social exclusion and to timely preventive reaction. Reasons for exclusion may be poverty, lack of qualifications and education, and various forms of discrimination. Hence inclusive development is one of sustainable development priorities for Montenegro.

According to the above stated the strategic NSSD goal by 2030 is **“Stimulate employability and social inclusion”** and it should be achieved through realization of the following priority measures:

- Achieve preconditions for self-sustainable and balanced economic development, which will reduce the rate of economically endangered population, SDG 1 (1.3, 1.5) and SDG 8 (8.1, 8.2),
- Provide social stability and reduce poverty rate, SDG 1 (1.1, 1.2, 1.3, 1.4, 1.4i 1b), SDG 2 (2.1, 2.2), SDG 4 (4.4), SDG 8 (8.5, 8.6 and 8.8) and SDG 10 (10.1, 10.4),
- Fight against social exclusion, SDG 10 (10.2, 10.3) 11 (11.1, 11.2).

Through measures against poverty, establishment of higher labor employability and elimination of social exclusion, Montenegro will give its contribution to the achievement of global sustainable development goals 1, 2, 4, 8, 10 and 11.

4.2.6. Improve the significance of culture as fundamental value of spiritual, social and economic development, which significantly improves the quality of life of citizens

Culture represents a fundamental value of each society and it is essential to base its development on: freedom of creativity and respect of the right on culture; commitment of the state and local self-governments to stimulate and assist the development of cultural and artistic creativity and to ensure protection and preservation of cultural heritage; equal preservation of all cultural identities and respect of cultural diversity; establishment and improvement of cultural system in accordance with international standards, in particular with the European Union standards; establishment of efficient, rational and creative management in culture; transparent activities in culture; respect and protection of copyright and related rights; democratization of cultural policy; decentralization of culture organization and financing².

National Culture Development Program recognizes that financing of culture includes support to a rather diverse and heterogeneous social sector, from the most important state cultural institutions, to private initiatives and individuals. At the same time, it also indicates the exceptional importance of this area, which is not only indicator of community spiritual development, but also specific potential of economic progress, therefore in this context the needs from the aspect of having consistent financial policies should be established, which will in-

² National Culture Development Program 2011–2015, Ministry of Culture of Montenegro

crease the competitiveness of the sector and its self-sustainability³. Increasing trend in the number of visitors in almost all formal cultural institutions is very commendable, but the need to have the quantity and quality of cultural offer follow these positive trends is obvious. Also, additional effort needs to be invested so as to enable a positive trend in the context of increasing visits to events organized by informal cultural actors.

In order to improve economic status of culture, its exclusive dependence on the funds allocated from the budget at state level and from local self-governments must be avoided. For the production of cultural products and projects other funding options must be found⁴. Cultural industry includes publishing, music, cinematographic and audio-visual production and multimedia, artistic crafts and design that are not strictly industrial sectors, but as per its management and organization they are similar. This area is also expanded with creative industries, including architecture and other art categories: visual, performing arts and others. Even though economy and culture strive to a common goal - having as high number of consumers as possible, in practice they often come across obstacles that complicate mutual relations.

In order to strengthen cultural sector, it is necessary to strengthen cultural institutions so that they have specific knowledge and sufficient human resources, are acquainted with modern trends and have conditions for quality work. It is necessary to equip institutions with modern equipment, both for preservation, and exposition, creation

and presentation of cultural items. Cultural offers must be accessible to everybody and take place through balanced regional distribution, so as to reduce regional disparities, whether it comes to rural-urban, center-periphery or north-south disparity. Status of formal and informal cultural actors must be improved, both through better social status, and through creation of markets for their creativity. Likewise, nonprofit cultural creativity must be provided with favorable framework for its development. Respect of copyrights must be fully enabled. Cultural offer should also be connected with economic activities such as tourism or development of cultural industries in a way that specificities of Montenegrin culture, its values and authentic expression became recognizable product or additional value to other products and services. Management in culture is an insufficiently developed segment within cultural institutions and it is necessary to develop activities and all kinds of capacities in order to create modern, efficient and sustainable management in culture. Working conditions must be ensured so that all sectors of culture - cinematography, cultural and artistic creativity, publishing, music-drama and performing art activities, then fine arts sector, museum-archive activities and similar develop on modern basis, with optimal conditions for work and at high professional level. Through programs of urban regeneration, new spaces must be created, zones in which free artistic items are generated and which, with their very existence, create new, quality urban spaces, improving the quality of spaces themselves in which they are created. It is necessary to recognize specific needs regarding cultural offer and expression of marginal and marginalized groups and ensure conditions for their formation, promotion, distribution and expansion of values and attitudes they represent.

3 Ibidem.

4 Ibidem.

It is very important to permanently educate the audiences, both the existing, and the one that still needs to be formed, starting from the youngest age, but not neglecting the oldest members of society, whereas emphasizing the importance of achieving quality cultural offer.

Accordingly, the NSSD by 2030 recognizes the necessity to accomplish the strategic goal **“Improve the significance of culture as fundamental value of spiritual, social and economic development, which significantly improves the quality of life of citizens”** that needs to be achieved through realization of the following measures:

- Strengthen capacity of cultural institutions at all levels and establish sustainable funding system, SDG 4, (4.7), SDG 8 (8.9) and SDG 11 (11.4),
- Establish modern, efficient system of creation and presentation of cultural activity, as well as the status of artists and authors in the society, whereas at the same time increase and educate the audience, SDG 8 (8.9) and SDG 11 (11.4),
- Strengthen informal, amateur, alternative, contemporary cultural practices, as well as cultural industries in Montenegro, SDG 4 (4.7), SDG 8 (8.9), SDG 11 (11.4),
- Encourage cultural diversity by strengthening cultural activities of marginal and marginalized groups such as young people, old people, women, LGBT population, people with disabilities, and similar, as well as providing tolerance in respect to this cultural segment, SDG 4 (4.7) and SDG 11 (11.4).

With the implementation of these measures

and improvement of the status of culture, Montenegro is giving its contribution to the achievement of global sustainable development goals 4, 8 and 11.

4.2.7. Efficient and modern system of integrated protection, management and sustainable use of cultural heritage and landscape

The Ministry of Culture of Montenegro through Culture Development Program 2016-2020 defines that “cultural heritage is recognized as an important factor of national identity and long-term resource for sustainable development, and as such it represents a priority of all modern public policies, thereafter it is necessary to continuously carry out activities related to its protection and preservation, improvement of the state, rising of awareness of citizens regarding the importance and significance of cultural heritage, then creation of an ambience for understanding cultural heritage and its role in society, particularly for cultural, tourist and economic development of the country”. Inadequate use and presentation of cultural heritage can cause irreparable damage to cultural identity values of the country. Principles of preservation and protection of cultural values are often contrasted to economic development, which is why it is necessary to find efficient mechanisms to prevent changes that may cause permanent damage to cultural heritage⁵.

There is need to improve cultural heritage protection system. The protection and management system has to be additionally strengthened what requires modernization

⁵ Culture Development Program 2016-2020, Ministry of Culture of Montenegro

and more efficient activities of competent institutions, strengthening of their capacities and facilities, thereafter better integration of legislative framework in the field of culture with regulations defining areas with which culture is in touch. Also, cultural heritage must be seen in its broadest sense, from mobile and immobile cultural properties to tangible and intangible heritage and protection of landscape. Cultural heritage is not a found antiquity but a resource on which quality sustainable development needs to be built.

Currently, the state is failing to fully cope with problems and challenges of cultural properties and heritage as a whole. Comprehensive approach means improvement of institutional framework, better cooperation of local and national authorities in the area of cultural heritage protection and preservation, harmonization of all legal acts regarding heritage, development of integrated approaches through intersectoral connection, introduction of heritage in other relevant sectoral studies, as well as strengthening of the existing and establishment of new institutions that will significantly strengthen entire system. The Ministry of Culture and public institutions dealing with preservation, presentation and evaluation of cultural heritage at all levels need to be actively involved in development and all the other projects that imply changes on cultural properties and their protected environment. Cultural heritage should have adequate treatment through regulated and modernized legal and institutional framework, as well as through the achievement of balance among public and private interests. In order to raise awareness of citizens regarding the importance of cultural heritage and possibilities for its valorization, it is important to have quality education system and active

participation of the media. In this regard, strengthening of staff capacities and modern programs is one of primary obligations of the state and local self-governments. International standards require that special attention is given to cultural heritage digitalization, for the purposes of easier accessibility, proper treatment and presentation.

It is necessary to significantly improve landscape protection – from identification and implementation of landscape typology to registration of the established protection and quality management. In that context measures for landscape protection from the aspect of the significance they have on nature and biodiversity preservation are defined (see strategic goal 3.1).

It is necessary to intensify activities regarding protection of the architecture of the 20th century and of the Socialist period, then rural architecture, industrial buildings and similar.

It is of key importance to intensify activities on the establishment of a database, introduction of research on scientific and skilled basis, as well as improvement of conservation activities through application of the best international standards.

Particular attention should be given to sites that are on UNESCO World Heritage List, in a way to preserve values which included them on that list, but also to use, to a large extent, benefits of that status, primarily through valorization through tourism.

Progress in the achievement of the above stated needs should be enabled through the achievement of the strategic NSSD goal by 2030 **“Establish efficient and modern system of integrated protection, management and sustainable use of cultural heritage and**

landscape” through realization of the following priority measures:

- Improve protection system of cultural heritage at all levels, SDG 4 (4.7), SDG 8 (8.9) and SDG 11 (11.4),
- Improve cultural heritage protection at all levels, SDG 11 (11.4) and SDG 8 (8.9),
- Improve sustainable use and management of cultural heritage, SDG 11 (11.4) and SDG 8 (8.3 and 8.9).

With the improvement of the system of integrated protection, management and sustainable use of cultural heritage and landscape Montenegro is giving its contribution to the achievement of global sustainable development goals 4, 8 and 11.

4.2.8. Achievement of more balanced socio-economic development of all local self-government units and regions, based on competitiveness, innovation and employment, with particular emphasis on the development of northern region

In order to be on the way to sustainable development, Montenegro must establish balanced and sustainable development on its entire territory. For that reason regional differences as per all parameters, in particular demographic and socio-economic, must be reduced. This in particular stands for northern region, which is continuously characterized by negative trends. This is the indicator of the lack of proper response to challenges regarding procurement of proper and sustainable development of this region, both at state, and at the level of local self-government units. Therefore, in the period until

the end of 2020, in order to achieve the strategic goal of regional development of Montenegro – achievement of more balanced socio-economic development of all local self-government units and region, based on competitiveness, innovation and employment – parallel to investing into basic infrastructure, it is necessary to realize a set of measures that will relate to increasing the level of competitiveness of less developed region, as well as to strengthening human resources and employment, while making sure not to endanger natural resources.

Development of infrastructure, in a wider sense, represents the first step towards balanced regional development. Having road infrastructure, municipal, energy, as well as very important ICT infrastructure, is a prerequisite for significant reduction of regional differences, primarily in the context of starting up the development of northern region. At the same time, aside from infrastructural facilities, it is also necessary to create socio-economic conditions in terms of creation of social centers, business incubators, clusters, development assistance funds and similar. In order to truly start up the development, human resources are necessary. Their development needs to be supported by the state and local levels of government by raising the level of knowledge and promoting social inclusion through the improvement of labor market and employment system.

Regional Development Strategy of Montenegro for the period 2014–2020 defined in a satisfactory manner goals, measures and indicators that are to enable more balanced regional development. The NSSD by 2030 relies on this strategy in terms of achieving its strategic goal **“Achieve more balanced socio-economic development of all**

local self-government units and regions, based on competitiveness, innovation and employment, with particular emphasis on the development of northern region” that needs to be achieved through realization of the following priority measures:

- Improve traffic and other infrastructure as preconditions for development, SDG 9 (9.1),
- Establish favorable social and socio-economic ambience that should prevent further negative demographic trends in the north of Montenegro, SDG 8 (8.3) and SDG 10 (10.2),
- Sustainably use natural resources, encourage low-carbon development and build municipal infrastructure⁶,
- Develop human resources in less developed municipalities⁷.

With the realization of stated measures for more balanced socio-economic development, Montenegro gives its contribution to the achievement of global sustainable development goals 8 and 10.

⁶ Adequate submeasures are defined in the part of the Action plan for natural and economic resources

⁷ Adequate submeasures are defined in the part of the Action plan for human resources

4.3. Conservation of natural capital

The sustainable management of natural resources, as a prerequisite for long-term conservation of natural capital, is at the center of the sustainable development of Montenegro. Likewise, due to the significance the natural resources have for the economy growth and development, it is necessary to guide the economic development towards greener economy, efficient resource management and non-jeopardizing the sustainability of natural resources scope, quality and potential, emphasizing all possibilities that are provided by ecosystem services, primarily in protected areas.

With regard to problems related to the aspect of natural resource conservation, there is a need for urgent response to main factors of risk which endanger nature and biodiversity, water, air and soil⁸. Specific groups of responses pertain to: solution of problems generated by unsustainable nature resource management and consumption patterns, mitigation or elimination of negative impacts of natural and anthropogenic hazards to nature resource status, as well as reduction of impacts to human health caused by pollution. In addition, it is necessary to improve the efficiency of use of unrenewable nature resources – space, metals and non-metals. Best environmental practice can significantly contribute to elimination or reshaping of the existing unsustainable

⁸ Recognized in the National Biodiversity Strategy 2010–2015.

behavior and consumption and production patterns, promotion of the existing knowledge, skills and experience so as to define optimal responses to challenges characterizing current circumstances in the development of Montenegro.

4.3.1. Halting the degradation of values of renewable natural resources

The identified problems, weaknesses and lacks imply the need to find the answers so as to achieve the strategic goal which pertains to **halting of degradation of values of renewable natural resources: biodiversity, water, sea, air and soil.**

This is the reason why in the area of nature and biodiversity protection this Strategy supports achievement of goals and implementation of measures defined in the National Biodiversity Strategy by 2020, National Strategy for Integrated Coastal Zone Management by 2030, and the European Union accession priorities of Montenegro. In long run, achievement of European goals for conservation of biodiversity in Montenegro should ensure the ability of natural environment to support resource efficient economy and the improvement of population life quality.

Improvement of environmental quality requires full transposition of the EU Acquis in Chapter 27 pertaining to environment and development of necessary administrative and technical capacities at state and local administrative levels to ensure enforcement of legislation. Overcoming of weaknesses and lacks in the implementation of approaches and instruments for the protection of ecologically valuable habitats and ecosystems, requires a real integration of nature protection requirements into sectoral policies and

development plans, rather than declarative one. Measures for nature protection must be integrated in development plans and planning regulation so as to enable application of sustainable patterns of use of natural resources and valuation of ecosystem services. Availability and updating of data related to biodiversity status should be improved, quality expert bases developed and their application ensured in spatial-planning documentation.

In order to control pollutant emissions to air, water and soil, priority significance is attributed to transfer of knowledge and application of optimal, clean and innovative technological solutions. First of all, industrial and traffic emissions should be reduced, including the emissions of greenhouse gases (GHG). This is equally important as the control of pollution at source, as well as measures aimed at elimination of threat to forest, water and coastal ecosystems caused by climate change. Measures aimed at the improvement of air quality should be implemented compatibly with specific measures pertaining to the protection of ozone layer, GHG emissions reduction, mitigation of climate change, and adaptation to climate change.

Application of preventive measures should be fostered by implementing environmental planning mechanisms in spatial plans developed to regulate different spatial uses, including the development of industry, traffic and transport and agriculture, but also the promotion of cleaner technologies and healthier lifestyles, public awareness raising and organization of visibility events in order to present harmful effects of certain product use and technologies to the public. Integration of environmental topics into development plans and sectoral policies,

balancing the development needs and environmental biological capacity, and related implementation of environmental management instruments (strategic environmental assessment and environmental impact assessment, application of ecosystem approach), fall amongst the most significant challenges in time horizon of this Strategy.

It is necessary to ensure continual and comprehensive monitoring of air, water, biodiversity and soil quality with identification of the causal - consequential relations of environmentally polluting activities and more efficient and consistent implementation of regulations respectively functioning of competent institutions. It is important to provide necessary funds for realization of environmental monitoring and corresponding researches and analysis in order to collect data on biodiversity in accordance with needs of biological diversity conservation and efficient control of biodiversity endangering factors, as well as data on air, water and soil status in accordance with the needs to improve the status of environment and to ensure efficient pollution control. Data collection process should be systematically set up so as to provide comparative time series, continually and gradually expanding the scope of monitoring programs of the status of environmental segments. Capacities should also be built through an increase in number of monitoring stations of environmental status, as well as the application of mechanisms inciting the integration of environmental protection and impact of environmental status to human health into sectoral policies. It is also necessary to develop an air and water quality modeling system in order to reduce costs needed for real time data production and to increase the coverage with data on environmental status.

It is necessary to improve the system of specific, multi-disciplinary status indicators, starting from information available within the existing databases, pursuant to relevant domestic legislation, as well as to obligations related to transposition of the EU Acquis into the national legal framework, obligations resulting from Montenegro's membership in relevant organizations and the UN Conventions, primarily to the obligation on introduction of the UN sustainable development indicators. It is specifically necessary to improve the reporting through increased support in application of indicator-based environmental monitoring, mathematical modeling etc. It is also necessary to ensure protection of public interest in carrying out the activities of significance for the collection of information and enabling the availability of environmental status information.

Establishing of such a devised efficient environmental management system can require review of competences, activities and methods of functioning in different institutions and administration bodies in terms of monitoring and reporting on environmental performance. Taking that into account, but also looking into a wider context of increasing the quality and efficiency of public administration, it is necessary to apply efficient measures to eliminate the problems which endanger sustainability of environmental management system over a longer period of time, including the possibility to entrust certain competences (e.g. from local to state level), especially in cases when applied measures do not deliver the desired results over a longer period of time. Concurrently it is necessary to implement programs for human resources improvement pursuant to the collection of data and reporting on environmental and natural resources performance.

With regard to the above stated, strategic objective in this area is to **“Stop degradation of the values of renewable natural resources - biodiversity, water, air and soil”**, which should be achieved through application of the following measures:

- Enable efficient protection of nature protected areas, ecologically valuable habitats, forest, water and coastal ecosystems, protected species of flora and fauna, air and soil, SDG 3 (3.9), SDG 6 (6.2, 6.3, 6.6), SDG 9 (9.4), SDG 11 (11.4, 11.6), SDG 13 (13.1), SDG 15 (15.1, 15.2, 15.3, 15.4, 15.5, 15.7, 15.8, 15.9, 15.a, 15.c),
- Improve the monitoring of biodiversity, water, sea, air and soil status, SDG 2 (2.4), SDG 3 (3.9), SDG 6 (6.3, 6.5, 6.6), SDG 11 (11.6), 12 (12.4), SDG 14 (14.c), SDG 15 (15.1, 15.3, 15.4, 15.5, 15.8, 15.9, 15.a, 15.c).

Achievement of this strategic goal and related measures will enable Montenegro to contribute to achievement of global sustainable development goals 2, 3, 6, 9, 11, 12, 13, 14 and 15.

4.3.2. Efficient management of renewable natural resources

Searching the answers to unsustainable practice and trends in use of natural resources in the frame of the NSSD until 2030, it is of highest priority to achieve the strategic objective pertaining to facilitation of more efficient natural resources management.

Within the establishment of future national ecological network, it is necessary to identify ecologically valuable habitats and

ecosystems. Ecosystems and services they provide should be adequately valued so as to enable making proper managerial decisions. Urgent revision is needed, and if it turns out to be necessary, re-categorization of the existing protected areas, also defining sustainable management models. It is also necessary to speed up the process of proclamation of new protected areas, especially in marine environment. Ecologically important sites should be put under appropriate protection regimes in accordance with international guidelines (e.g. Aichi biodiversity targets and global sustainable development goals 14 and 15). In addition, it is necessary to develop a system of protection measures and mechanisms outside the protected areas. It is important to work on the development of appropriate capacities for the protected areas management, especially marine ones, taking into account that there is no relevant experience in that respect in Montenegro.

Priorities of sustainable forestry include the improvement in implementation of strategic documents in the forestry sector – the Strategy with the Development Plan for Forest and Forestry for the period 2014–2023, as well as the improvement of management capacities in administration and professional services, and awareness raising among private owners, concessioners and licensed entrepreneurs about the importance of sustainable forest management. Forest information system should also be enhanced, introducing and monitoring the forest management indicators, including data about illegal logging. In addition, it is necessary to introduce enhanced planning instruments and procedures for forest management, including the consistent application of environmental impact assessment in the process of awarding the concessions

on forests. Development of science and research in the area of forestry is crucial for sustainable management, especially in determination of climate change impacts and possibilities of forest adaptation to climate change, use of biomass as a renewable energy source, conservation of forests as one of most important ecosystems, ecological reconstruction, improvement of forests health status, and development of forest management system. It is also important to support efforts to increase the utilization level of waste biomass used as energy source (such as pellets and similar forms), also to integrate forest sector into rural development, especially in the context of enabling creation of new jobs in forestry and wood processing industry, and increase of households income in rural areas. Private sector in forestry should be supported in several ways: by providing professional and financial support to owners of private forests and associations, by developing entrepreneurship, and by increasing competitiveness of Montenegrin forest products in European markets, etc. Tax incentives, which would encourage investment of private capital into forestry and wood processing, stimulate afforestation of degraded land and connection with markets for fuel of wood biomass, are just some important instruments. Improvement of information basis is required, as well as introduction of improved instruments and planning procedures and forest management based on value analyses of forest ecosystems services. As already stated in the assessment of natural resources status, forests play a crucial role in preservation of Montenegrin biocapacity, taking into account that they make 75% of the entire biocapacity of the state. The aforementioned incentives and modalities of forestry and wood processing industry development must be followed by measures related to

keeping the forest logging within sustainable limits. Actually, growth of ecological footprint, with forest footprint as one of six components thereof, under equal intensity as the growth of export ecological footprint, indicates increased pressure on forest ecosystems due to consumption generated by export demand.

In order to ensure sustainable development of water resources, a number of challenges must be overcome, such as: irrational and inefficient use of water (which is, for example, reflected in big losses in water supply systems, un-purposeful consumption of water, absence of recycling or re-use of water to a considerable extent, etc.), insufficient development of wastewater treatment infrastructure (sewerage systems and wastewater treatment plants), insufficient control of numerous sources of pollution, inconsistent application of strategic environmental impact assessment and environmental impact assessment in exploitation planning of e.g. valuation of hydro-potential and exploitation of materials from the watercourses beds, inadequate protection against floods and erosion, non-implementation of best available techniques (BAT), weaknesses in information system (including the lack of a unified national water information system), river basins management plans not yet adopted, and so on.

In compliance with the target values settled within the seventh Millennium Development Goal – ensure environmental sustainability, as a part of the process pertaining to implementation of the 2030 Agenda for Sustainable Development and achievement of sustainable development goals, the following should be done: continue the implementation of projects defined in Wastewater Management Master Plans so as to ensure

that the percentage of connections to sewerage systems would increase to 75-80% by 2020 respectively to enable full implementation of Directive 271/91/EEC on Urban Wastewaters by 2029, covering all agglomerations with wastewater treatment plants (WWTP) and achieve connections to sewerage systems of more than 90%. It is also necessary to enable that share of treated wastewaters in total quantities of wastewaters is 60% in 2020, respectively more than 90% in 2029. Considerable improvements in water resource management and rationalization of water consumption should be achieved through consistent application of legislation harmonized with the EU regulations, especially with the Water Framework Directive and through application of economic instruments focusing on better management of water demand, such as: full prices (covering all environmental, social and economic costs) and utilization of water resources, fees and taxes, eco-labels etc. Fees and taxes can include a wide base inter alia for: water catchment, consumption measuring, use of water and discharge of wastewaters into surface waters, green water taxes and penalties for use of water resources without permits. Experience from other countries has demonstrated that significant improvements in water resources management and in rationalization of consumption can be achieved through adequate application of the aforesaid economic instruments. When it comes to floods, it is necessary to strengthen information system and draft and implement water management plans, as well as plans of flood risk management. Sustainable water management is of specific importance in the context of climate change, taking into account that all the analyses conducted so far have indicated that water resources are excessively sensitive to changes of temperature and rainfall

regimes, so significant alterations can be expected therein (in flow rates, abundance, floods and other related phenomena caused by extreme weather conditions) in this century.

Efficient natural resources management is under considerable influence of climate change mitigation through contribution to GHG emission reduction in sectors of energy, industry, agriculture, forestry and waste management, and reduction of vulnerability and increase of human, natural and social systems resistance to climate change. This was the reason to define climate change mitigation measures within the NSSD strategic goal – reduce the level of GHG emissions by 2030 by 30% compared to levels from 1990 in item 4.4.1, adaptation measures and measures to increase the resistance of humans, natural and social systems to climate change in item 4.3.6, while measures of specific importance for enabling the symbiosis of effects of environmental status and human health enhancement are defined in item 4.3.3.

In the time horizon of this Strategy, the priority is also given to rehabilitation of environmental hot spots and full utilization of capacities of two so far constructed sanitary landfills in Podgorica and Bar, as well as construction of the centre for thermal treatment of waste with the aim to achieve optimal results in waste management. In terms of reduction of pollution pressures caused by waste disposal, it is of utmost importance to rehabilitate unregulated solid waste dumpsites. It is also necessary to further harmonize national legislation with the EU Acquis in the area of integrated pollution prevention, waste management, responsibility for environmental damages, where specific attention should be given to mandatory ap-

plication of best available techniques (BAT) and prevention of industrial accidents. It is necessary to fully implement the Program of harmonization of certain industries with the Law on Integrated Pollution Prevention and Control, primarily in terms of issuance of integrated permits to Aluminum Production Factory in Podgorica –APP, Steel Mill in Nikšić, and to Thermal Power Plant –TPP in Pljevlja.

Taking into account all the above stated, strategic goal **“Enabling efficient natural resources management”** should be achieved through implementation of the following measures:

- Identify and evaluate ecologically valuable habitats and ecosystems and revise the status of present protected natural resources, SDG 12 (12.2), 14 (14.2, 14.5), SDG 15 (15.1, 15.2, 15.4, 15.5, 15.9),
- Develop capacities for integrated management of protected natural resources, ecologically valuable habitats and ecosystems, SDG 12 (12.2), SDG 14 (14.1, 14.2, 14.5, 14.7, 14.a), SDG 15 (15.1, 15.2, 15.3, 15.4, 15.5, 15.9), 17 (17.4, 17.15),
- Enable resource-efficient use of forest resources, SDG 7 (7.a), SDG 13 (13.1), SDG 15 (15.1, 15.2, 15.9, 15.a, 15.b, 15.5, 15.9),
- Enable resource-efficient use of water resources, SDG: 6 (6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.a, 6.b), SDG 11 (11.5), SDG 13 (13.1, 13.2),
- Conduct remediation of the existing pollution and develop infrastructure for waste and wastewater treatment, SDG 9 (9.4, 9.5),
- Establish integrated coastal zone

management, SDG 14 (14.1, 14.2, 14.3, 14.5, 14.7, 14.a, 14.b, 14.c).

Achievement of this strategic goal and related measures will enable Montenegro to contribute to the achievement of global sustainable development goals 6, 7, 9, 12, 13, 14, 15 and 17.

4.3.3. Improvement of environmental status and human health

As already stated in the evaluation of natural resources status, there are numerous factors which lead to endangerment of human health (please refer to section 3.1) due to environmental pollution – pollution of water, air, sea and soil. Within strategic goals aims of which are to halt degradation of renewable natural resources: biodiversity, water, air and soil, and to improve efficiency of natural resources management, measures important from the aspect of environmental status improvement related to the needs of human health improvement have been defined. These groups of measures actually are directly related to the provision of adequate response to mitigation and elimination of obvious effects of environmental pollution to deterioration of population's health. Specifically important measures are those defined with regard to remediation of the existing pollution, particularly in hot spots, primarily in Pljevlja and Nikšić, and construction of infrastructure for waste and wastewater treatment. This was the reason why, in addition to already mentioned ones, the NSSD strategic goals also include enabling the symbiosis of effects of environmental status and human health protection effects. In order to determine the impacts of pollution to human health, undertake preventive measures and eliminate negative consequences, it is necessary to strengthen

mechanisms of horizontal cross-sectoral cooperation – health care and environment, science, spatial planning, sport, etc, as well as vertical coordination from central to local levels. Since climate change generates considerable pressures to human health, it is also necessary to adopt a comprehensive strategy for adaptation to climate change impacts and climate variability in public health sector.

This is why strategic goal in this area “Enabling the symbiosis of effects of environmental status and human health protection” should be achieved through implementation of the following measures:

- Establish mechanisms of cross-sectoral cooperation in order to improve public health, SDG 2 (2.4), SDG 3 (3.9), SDG 6 (6.1, 6.2, 6.3, 6.4), SDG 11 (11.6, 11.c), SDG 13 (13.1), 17 (17.7),
- Reduce vulnerability of population caused by climate change, SDG 1 (1.5), SDG 13 (13.2, 13.3).

Achievement of this strategic goal and related measures will enable Montenegro to contribute to the achievement of global sustainable development goals 1, 2, 3, 6, 11, 13 and 17.

4.3.4. Sustainable spatial planning

For the development of Montenegrin society, it is very important to have a modern and efficient spatial planning system which supports protection of public interests. The results of spatial planning should lead to a halt in devastation of space and to the improvement of its quality. It is necessary to correct systemic mistakes at all decision-making and implementation levels.

When it comes to the assessment of spatial status in Montenegro throughout the period covered by this Strategy, the priority is to solve problems of unsustainable spatial capacitating generated by unrealistic demand in terms of quantity and low quality of built-up areas. Spatial development and spatial planning system has numerous mechanisms based on sustainable development principles to solve those problems which lead to permanent diminish of both visual and economic, but also of other spatial values. Applying these mechanisms, integration of a number of sectors into spatial-planning process and their mutual compatibility will be enabled. Among the mentioned mechanisms, specifically prominent one is strengthening the spatial-planning analytics at all levels – from national reporting about the spatial status, preparation of terms of reference for the development of certain planning documents, drafting of high quality professional inception studies, to the evaluation of planning documents in the approval process. On the other hand, in order to enable objective view to spatial-planning analytics, it is of utmost importance to apply quantified indicators because they enable exact measurability of changes in space, as well as comparability to similar or more built-up areas (e.g. countries in the region and in the EU). Application of indicators is specifically important for determination and monitoring of implementation of quantified planning goals. This moreover requires application of modern informatics support, including the application of GIS technologies which enable efficient implementation of spatial-planning analyses and quick data exchange, as well as setting the basis for more efficient spatial

planning control⁹. Mechanisms for the improvement of planning documents quality through reaffirmation of methodologies and professional criteria which serve as a basis for planers' decisions are also necessary. Moreover, there is a need for mechanisms which enable more efficient implementation of plans as an important prerequisite to achieve quality of built-up areas, while the greatest challenge is seen in implementation of planning documents, timely preparation and regulation of construction land.

The analysis of land use in Montenegro¹⁰ conducted in the process of this Strategy drafting indicated compatibility between the assessments contained in the National Strategy on Integrated Coastal Zone Management of Montenegro. With regard to that, measures defined in this Strategy pertaining to the development of sustainable spatial planning system, are recognized in the NSSD by 2030 as integrated part of the NSSD Action Plan in the part pertaining to mitigation of unsustainable trends of land use by 2030. In addition, a part of the NSSD Action Plan by 2030 includes guidelines defined in NSICZM in terms of: regulating excessive land use, optimization of land use through minimization of conflicts between the use and vulnerability of land, regulation of construction in closer coastal strips – coast set-back, conservation and sustainable development of rural areas, establish-

ing the monitoring and evaluation, taxing policy instruments with the aim to achieve spatial-planning goals and establishing the basis for marine spatial planning.

In order to evaluate the status of land development for the purposes of sustainable development planning by 2030, the indicators applied were those related to the existing construction area, planned construction area, the extent to which the construction areas are used or built-up, population density of construction area, consumption of construction area per capita, as well as determination of spatial reserves within construction areas¹¹. The parameters presented in such layers¹² enabled quality insight into the spatial status and relatively precisely indicated greater or smaller deflections from the desired models of sustainable spatial development. Starting from measures defined in the NSICZM, this Strategy stresses the importance of: amending of regulations in place so as to ensure more precise normative regulation of construction area dimensioning according to the gross areas of built-up and non-built-up construction area in territories of certain municipalities in accordance with that construction area type, application of instruments directing spatial and development priorities to the improvement of use of already built-up areas, redirecting the trend of quantity growth in land use to increase of value and quality of built-up areas and environment, optimization of use by eliminating conflict purposes of land, i.e. by harmonizing envi-

9 Ministry of Sustainable Development and Tourism, National Strategy on Integrated Coastal Zone Management of Montenegro, Government of Montenegro, 2015.

10 Ministry of Sustainable Development and Tourism, Analysis of spatial development sustainability based on the development of indicators for the territory of Montenegro, the NSSD basic analysis, 2015.

11 Ibidem.

12 Data was processed for the PGUR (Plan for General Urban Regulation within Spatial Urban Plan -SUP), i.e. for the level of GUP (General Urban Plan), as well as for zones not covered with Plan for General Urban Regulation /General Urban Plan and represent areas outside urban centers

ronment vulnerability and development interests, and continual monitoring of spatial changes.

Sustainability of cities is to great extent conditioned by the improvement of spatial planning system as an important element in the entire urban area management system. It is therefore necessary that local self-government units monitor indicators of urban sustainable development more quality, to improve them continuously, and to use all available capacities in cities to make the development stable, sustainable and properly controlled.

A very important element for the improvement of life quality in urban areas is responsible housing policy which recognizes the right on flat as regulated through numerous international treaties and conventions to which Montenegro is contracting party. It is also necessary to respect all specificities caused by historic heritage and relatively limited opportunities, which are all consequences of the social system size¹³.

In accordance with the above stated, the NSSD strategic goal by 2030 in the area of sustainable spatial planning is to **“Solve problems of unsustainable capacitating of space generated by unrealistic demand in terms of quantity and low quality of built-up areas”**, which should be achieved by implementing the following measures:

- Amendments to the Law on Spatial

Development and Constructions, related laws and bylaws, improving the planning system, spatial development and construction of structures thus increasing spatial value and disabling uncontrolled and irrational space use through planning, SDG 11 (11.3, 11.a), SDG 14 (14.2),

- Introduce continual monitoring of changes in spatial development in centralized information system, SDG 11 (11.3, 11.a),
- Encourage spatial optimization and quality of built-up areas, SDG 11 (11.3, 11.7, 11.a), SDG 14 (14.2), 16 (16.6),
- Enable construction of new buildings exclusively in accordance with sustainable architecture and construction standards, and improve the existing construction stock, SDG 7 (7.2) (7.3);
- Improve life quality in cities, SDG 11 (11.2), (11.3) (11.7) 11.a, (11.6), 12 (12.8);
- Improve the state in the housing sector, SDG 11 (11.1), (11.3).

Achievement of this strategic goal and related measures will enable Montenegro to contribute to the achievement of global sustainable development goals 7, 11, 14 and 16.

4.3.5. Efficient use of metallic and non-metallic resources

With regard to problems related to use of metallic and non-metallic resources, among the most critical challenges in the period covered by this Strategy, there are issues of their resource efficient utilization and reduction of consumption, use in the context of introduction of circular economy, as well as minimization of environmental impacts

¹³ Ministry of Sustainable Development and Tourism, National Housing Strategy of Montenegro for the period between 2011 and 2020 with framework Action Plan for the period 2011 to 2015 (prepared by the Institute for Construction Ltd.), Podgorica, 2011.

of exploitation, industrial processing and treatment thereof.

Opposite to the fact that sustainable management of materials, i.e. efficient use of mineral resources is not in focus of attention in Montenegrin economy, efficient use of these resources is in European policy addressed through measures for: reduction of negative environmental impacts of products throughout the entire life cycle, prevention of waste, recycling and re-use, incentives for research and innovation, application of market-based instruments, etc. This is why it is so important to develop and apply adequate instruments which will encourage resource efficiency of use of domestic resources by the existing industries in long run. With regard to optimal scenario for decoupling the economic growth from the material consumption by reducing DMC indicator¹⁴ by 20% and increasing resource productivity by 54.8%¹⁵ until 2020, i.e. growth of GDP and domestic consumption at annual rate of 3.4% and -1.4%¹⁶ (please refer to section 4.4.2.1.), it is necessary to enable reduction of DMC in sectors dominated by consumption of metals and non-metals expressed by

their percentage share in total consumption. Construction sector should therefore give the greatest contribution to overall reduction of DMC and improvement of resource productivity, which would mean percentage increase of resource productivity in 2020 compared to 2013 by 201.1%. Processing industry would not significantly contribute to the reduction of DMC, i.e. resource productivity of the processing industry would increase by only 9.7%.

When it comes to introduction of circular economy concept in consumption of technical materials, such as metallic and non-metallic mineral resources, but also polymers, alloys, hydrocarbon derivatives (plastic, for example), in order to achieve resource efficiency it is necessary to encourage application of a range of measures, primarily technological innovations aimed at modernization of industrial production in Montenegro and reduction of environmental pollution.

A special problem is the fact that use and processing of mineral resources are related to significant negative environmental impacts and that devastated areas are rarely or even never restored. Moreover, concessions for use of certain raw materials mainly do not reflect real costs related to use of these resources, and as certain international studies have demonstrated, the practice implemented so far is that lignite exploitation is considerably (directly or indirectly) subsidized¹⁷. In case of research and production of oil and gas, it is necessary to minimize

¹⁴ Domestic material consumption is an indicator which measures total material value directly consumed in the economy and is defined as annual quantity of natural material extracted in domestic territory, plus total physical import, minus total physical export.

¹⁵ UNDP, "National Human Development Report 2014, Towards a resource-efficient economy", The United Nations Development Programme (UNDP), Country Office Montenegro, Podgorica, 2014

¹⁶ ISSP, Translation of recommendations of scenario 4 developed in NHDR for 2014 into sector policies for drafting of NSSD, April 2015.

¹⁷ UNDP, "National Human Development Report 2014, Towards a resource-efficient economy", The United Nations Development Programme (UNDP), Country Office Montenegro, Podgorica, 2014

negative environmental impacts to acceptable levels through application of best available techniques (BAT).

In accordance with the above stated, the strategic goal in this area is to **“Enable resource-efficient use of metallic and non-metallic resources”**, which should be achieved through implementation of the priority measure: “Minimize environmental impacts and improve economic performance of mineral resources exploitation“, SDG 6 (6.6), SDG 8 (8.4), SDG 12 (12.1, 12.2), SDG 15 (15.3).

Achievement of this strategic goal and related measures will enable Montenegro to contribute to the achievement of global sustainable development goals 6, 11, 12 and 15.

4.3.6. Mitigation of natural and anthropogenic hazards impacts

In the use of natural resources, specific problem, weaknesses and lacks are those pertaining to level of knowledge and development of capacities for the reduction of risks related to natural and anthropogenic hazards impacts. With regard to key recorded hazard risks – seismic hazard, erosion, floods, fire, landslides, rockfalls, avalanches, etc, and multiplication of hazard risks under climate change, this Strategy supports prevention of new and reduction of the existing hazard risks as the priority sustainable development goal of Montenegro by 2030. The goal set like that is in compliance with global Sendai frameworks for the reduction of risks of disasters in the period between 2015 and 2030. While the existing hazard risk in Montenegro can be related to recent emergencies – forest fires, extreme rainfall and floods, earthquakes etc, what must be taken into account with future hazards is climate change, as well

as necessity for adaptation and strengthening resistance of natural and social systems to multiplication of hazard impacts caused by changed climate conditions.

Strengthening resistance, reduction of vulnerability and exposure to natural and anthropogenic hazards can be achieved through the following measures¹⁸:

- Improve the understanding of hazard risks, SDG 11(11.b), SDG 13 (13.1, 13.3), SDG 16 (16.6),
- Strengthen institutional framework for hazard risk management, SDG 3 (3.d), SDG 13 (13.2, 13.3),
- Invest into risk reduction and strengthening resistance of natural and social systems, SDG 1 (1.5), SDG 11 (11.5),
- Improve readiness for response to emergencies and restoration through recovery, rehabilitation and reconstruction, SDG 3 (3.d), SDG 11 (11.5, 11.b), SDG 13 (13.3).

Understanding the hazard risks is a complex task which requires scientific research, constant monitoring of numerous parameters and indicators, education of population, public awareness raising and introduction of specific knowledge through educational system, drafting of strategic and planning documents, strengthening capacities in competent institutions and so on. Policies and practice in hazard risk management must be based on understanding of risks and all dimensions attributable thereto, starting from vulnerability, capacity, expo-

¹⁸ Defined in compliance with priorities specified in the Sendai Framework for Disaster Risk Reduction 2015–2030, Sendai, Japan, March 18, 2015

sure of population and resources to the risk, so as to ensure readiness for the efficient response to hazards.

Strengthening institutional framework for risk assessment is also very complex task, since hazard risk reduction requires engagement of the entire social system, paying special attention to vulnerable population groups. Although the role of state administration and institutions is a key for hazard risk reduction, it is necessary to empower local communities to participate in recognizing the risks and suppressing them, and also to participate in sustainable local resources management.

Investing into risk reduction and increase of resistance requires allocation of funds at all levels – provision of international aid for strengthening the resistance of key infrastructural facilities, provision of budget allocations at state and local levels, investments from private sector, especially large industrial facilities, mobilization of insurance sector so as to mitigate consequences of hazard and ensure faster and more efficient response in reconstruction and recovery from disasters, investments into ecosystem resilience and protection, as well as investments into scientific research and innovations.

Improvement of readiness to emergencies and restoration through recovery, rehabilitation and reconstruction implies actions which should be implemented in advance at all levels. It is necessary to improve readiness for preventive action through well-designed coordination, adoption and implementation of integrated policies and plans for participation, resistance to disasters, resource efficiency, mitigation and adaptation to climate change. Preventive acting

requires holistic approach in disaster risk management in accordance with the Sendai Framework for Disaster Risk Reduction for the period 2015–2030, including: public awareness raising, establishment of a public information centre, establishment of early warning system, organization of drills for evacuation at all levels and training for proper acting in case of emergencies, ensuring mobility in case of emergencies, alternative ways for the provision of water, food, energy and restoration of telecommunication lines, provision of medical aid, etc. Preventive acting implies a pre-designed coordination, high level of public awareness, existence of the public information centre, organization of evacuation drills and trainings for proper acting in case of emergencies.

The National Emergency Strategy recognizes the necessity for creation of permanent budget sources for the establishment of a state system for the protection against disasters and accidents for a long-term implementation thereof. It also defines the need to draft detailed and comprehensive national action plans for different types of emergencies. The core of the response is the need to improve the existing technical capacities for reliable continual monitoring of all natural phenomena and technical-technological processes, as well as of biological hazards which can result in emergencies.

Taking into account multiplication of hazard risks under the effects of climate change, **measures for adaptation to climate change must take a central role in the development of human, nature and socio-economic system resistance.** Climate change is already happening, and effects thereof will leave far-reaching consequences for created and natural systems. This is

why the activities related to adaptation and implementation of urgent actions to combat climate change and impacts thereof are important for conservation of human health, property, infrastructure, ecosystems and strengthening resistance to disasters. The intensity and frequency of meteorological extremes in real time and projected increase of frequency of extreme events, such as heat waves, droughts, heavy rainfall leading to floods, storms within cyclones, all confirm that these events are significant threat to national economy and sustainable development. That is why priority measures related to adaptation to climate change include (SDG 1 (1.5), SDG 2 (2.4), SDG 11 (11.b), SDG 13 (13.1, 13.2, 13.3, 13.a, 13.b)):

- Reduction of human, natural and social systems vulnerability to climate change,
- Increase in human, natural, social and ecosystem resistance to those aspects of climate change which cannot be avoided.

The examples of adaptation measures include the following: more efficient use of scarce water resources, adaptation of construction codes to future climate and extreme weather conditions, development of crops tolerant to drought, selection of trees and practices in forestry less susceptible to storms and fire, separation of land corridors to enable migration of species, etc.

Achievement of this strategic goal and related measures will enable Montenegro to contribute to the achievement of global sustainable development goals 2, 11 and 13.

4.4. Introduction of green economy

In the context of the NSSD, introduction of green economy implies application of the UNEP approach according to which green economy is a low-carbon, resource-efficient and socially inclusive one, i.e. it implies achievement of strategic goals structures in the following priority areas: mitigation of climate change, resource efficiency, waste management with application of approaches within circular economy, sustainable coastal zone resource management and encouraging blue economy, sustainable production and consumption and corporate responsibility, as well as growth of Montenegrin economy competitiveness.

4.4.1. Climate change mitigation

Although Montenegro can be classified as a country with low level of GHG emissions, both annual ones and emissions per capita and per GDP unit, measures for mitigation of climate change should be applied. In accordance with the intended nationally determined contribution (INDC) to global reduction of GHG emissions, the strategic goal of Montenegro in terms of mitigation of climate change is reduction of GHG emissions by 30% until 2030 compared to baseline 1990. A key prerequisite for the achievement of this goal is integration of climate policy and measures for GHG emissions reduction into all relevant sector policies and related growth of earmarked budget funds and improvement of the existing sector-re-

lated regulations. In addition, it should be borne in mind that introduction of majority of measures related to GHG emissions reduction requires changes in behavior of population through education, primarily through education about energy savings and low-carbon technologies, public awareness raising about problems generated by climate change and measures for mitigation thereof, strengthening human resource and institutional capacities for mitigation of climate change, but also about adaptation to climate change impacts and early warning.

One of the key roles in mitigation of climate change belongs to forests. Improvement of forests status directly influences the increase of CO₂ emissions sinks, at the same time achieving other positive environmental effects, such as biodiversity conservation, prevention of land erosion, improvement of air quality. As demonstrated by the ecological footprint analysis for Montenegro, high biocapacity per capita is mainly contributed by forests and forests land which participates with 75% in total land biocapacity. This is the reason to raise public awareness continually, while delivering trainings to policy creators and implementers and specifically reducing GHG emissions in key sectors, primarily in energy and industry, increasing sinks for CO₂ emissions, that is, increasing forest coverage and areas under forest land. At the same time, it is necessary to work on sustainable forest management in the forestry sector, as well as on protection of forests against forest fires and illegal logging, and on the improvement of legal framework.

In order to achieve the set goal, reduction of GHG emissions, a key role is given to increase of resource efficiency through methods, procedures and instruments, applying

economic, emission, promotional, regulatory and cooperation measures as listed in item 4.3.2. To this end, the following measures are of specific importance for energy sector: fiscal policy measures, abolition of subsidies for harmful activities, green finances and green subsidies, application of emission, technological and other standards, as well as measures for the support to intensive energy consumers to create detailed plans for resource efficiency and enable transfer of experience in implementation of resource efficiency. In the production of energy it is necessary to enable application of innovative technological measures in use of non-tangible renewable sources of energy, with simultaneous improvement of energy efficiency (EE) in the consumption segment and increase use of renewable energy sources (RES), which includes economic incentives for energy savings, implementation of energy efficiency sector programs and promotion of investments in the area of energy efficiency. Additionally, promotion of rational use of energy and greater use of RES must be followed by further improvements of legal framework and application of financial instruments in this area.

With regard to the above, the NSSD strategic goal to **“Reduce greenhouse gases emissions by 30% until 2030 compared to baseline 1990”** should be achieved through implementation of the following measures:

- Develop capacities, improve education and raise public awareness about climate change and measures for mitigation thereof, SDG 2 (2.4), SDG 7 (7.a) SDG 9 (9.2), SDG 12 (12.5), SDG 13 (13.2, 13.3), SDG 15 (15.b) and SDG 17 (17.3, 17.7, 17.9),
- Introduction of low-carbon technology in installations in accordance with

best practices, SDG 2 (2.4), SDG 9 (9.2), SDG 12 (12.5), SDG 13 (13.2), SDG 15 (15.2),

- Increase the share of renewable energy sources and promote rational use of energy, SDG 7 (7.1, 7.2, 7.3 and 7.a), SDG 9 (9.1, 9.5), SDG 10 (10.b) 13 (13.2), SDG 17 (17.2, 17.9, 17.14, 17.17),
- Improve forest status and ensure additional afforestation, SDG 12 (12.2), SDG 13 (13.1, 13.2) and SDG 15 (15.b).

Apart from being directly related to the listed sustainable development goals, measures defined in such way have significant influence on the achievement of other global sustainable development goals, such as: provision of available, reliable and sustainable energy; promotion of inclusive and sustainable economic growth and sustainable industrialization, sustainable production and consumption; ecosystem protection, sustainable forest management, etc, that is, they contribute to the achievement of global sustainable development goals 2, 7, 9, 13 and 15.

4.4.2. Roadmap to resource efficiency

When efficient use of resources is the topic,¹⁹ this means that use thereof is such to ensure that consumption and/or use of resources and related influences shall not lead to excessive exploitation and degradation of resource basis, i.e. such use will ensure rational use of resources and decoupling of

¹⁹ In brief, resource efficiency is construed in the EU policies as use of limited resources of the planet in sustainable way, at the same time minimizing environmental impacts; it enables to create more from less, i.e. to generate greater value with lower inputs.

economic growth from resource utilization, ensuring continual growth with the consumption of the same or smaller resource quantities. The Resource-Efficient Europe Flagship Initiative (formulated in the Europe 2020 Strategy) emphasizes the necessity of further adoption of policies which will help to:

- improve economic performance in parallel to reduced resource use,
- identify and create new possibilities for economic growth, greater innovations and improvement of economy competitiveness,
- ensure availability of most important resources in long run,
- mitigate climate change effects and limit environmental impacts originating from use of resources²⁰.

As previously mentioned, Montenegrin economy as a whole is characterized by inefficient use of resources, especially of energy and water, while only a minor part of generated waste is recycled or re-used. In addition to negative environmental impacts, such status also negatively affect the economy competitiveness and opens a lot of space for introduction of green economy policies and measures. Therefore three strategic goals have been defined and they pertain to: improvement of resource efficiency in key economic sectors, improvement of waste management and supporting sustainable valuation and conservation of marine resources.

²⁰ Ministry of Sustainable Development and Tourism, Making the Economy of Montenegro Green, Government of Montenegro, 2012;

Table 4-1: Projections of sector-related resource productivity for Montenegro by 2020, Source: ISSP, 2015.

	DMC in tons	Share in DMC in %	DMC by 2020 (reduced by 20%)	Absolute reduction in tons	RP by 2020 (€/t)	RP % change
Service sector	823,096	9.5	658,476.8	164,619	1.95	164.6
Agriculture and fishery	141,120	1.6	112,896.0	28,224	3.66	93.6
Energy	1,929,563	22.3	1,543,650.4	385,913	0.18	158.4
Processing industry	842,172	9.7	673,737.6	168,434	0.18	9.7
Transport	164,000	1.9	131,200.0	32,800	0.74	-3.9
Construction	4,767,766	55.0	3,814,212.8	953,553	0.09	201.1

Efficient use of resources is a horizontal matter, so policies in this area are reflected in a number of sector policies – from policies of natural resource management, through science and research, statistics, fiscal policy, environmental and land use policies (spatial planning) – to policies in economic sectors such as agriculture, energy, transport, construction etc.

There are examples in Montenegrin policies which have generated positive results for resource efficiency and activities which supported practical application of sustainability requirements in different areas. Such examples include projects and initiatives for the application of cleaner technologies, greater investments in research and development, efforts for introduction of recycling, increased energy efficiency, defining environmental indicators, harmonization with European legislation, etc. Yet, it has been generally assessed that Montenegrin economy is dominated by inefficient use of resources and by lack of adequate and effective policies and instruments, as well as by examples of counter-productive instru-

ments which stimulate inefficiency. In cases when the basis for adequate policies are defined in legal regulations, strategies and plans, there are obvious examples of deflections from such principles in practice, or even examples when such principles are simply not applied at all.

In order to ensure transfer to **resource-efficient economy and long-term decoupling of economic growth from resource consumption and negative environmental impacts**, it is necessary to introduce fundamental changes in the way policies are created and implemented.

Resource efficiency policies should be based on good information, they should have a long-term perspective, be the expression of coordinated approach across different sections of administration and enjoy support from wider specter of social stakeholders. It is also very important to carefully monitor the effects of such policies and to modify them in case they failed in achieving set goals. International experience (especially the EU case) demonstrates that there is a

wide array of policies and measures which can be applied to achieve efficient use of resources, which include proper pricing, elimination or reduction of subsidies harmful for the environment, green taxing policy, sustainable public procurements, stimulation of innovations, technical standards and eco-design, valuation of natural resources and ecosystems and their adequate presentation in national accounts, establishment of indicators, partnerships, development of knowledge and abilities, strengthening of scientific-research activities, and so on.

Cost-effective and efficient use of natural resources is crucial for sustainable development of Montenegro. It is a direct consequence of the manner of organization of economic activities in the country, strategic commitments, sector policies and finally, of awareness about the need for sustainable resource management. It is very important to direct the efforts to decouple economic growth and resource use on one hand, and to the existence of inversive influence of economic growth to environmental degradation on the other.

The procedure for the establishment of natural resource productivity within the frames of the national economy is reflected in the assessment of aggregate domestic material consumption indicator (DMC)²¹, in absolute

and relevant amount. When gross domestic product is divided by absolute amount of DMC, resource productivity (RP) is obtained as a result²². This is why it is so important to monitor the level and schedule of DMC and RP within regular statistical reports and in the framework of the national economy, and for comparison purposes.

According to the analysis contained in the UNDP "National Human Development Report 2014"²³, based on the assessment of average resource use for the period 2005-2012, several productivity scenarios have been developed for Montenegro, where best evaluated one was scenario 4 which anticipates absolute reduction of resource use by 20% compared to the stated average (Table 4-1).

If Montenegro wants to improve its resource productivity, thus improving resource management, a scenario with such set goal will enable adequate framework. Taking into account this implies reduction of DMC per capita per ton, this scenario is a sufficient framework for a significant step forward in resource utilization in Montenegro. Finally, bearing in mind that reduction of DMC

t (12.5%). The input structure included net import and export (Estimations provided in UNHDR 2014).

²² Resource productivity is a measure of total material quantity used in the economy compared to gross domestic product. It enables insight into whether there has been decoupling between natural materials and economic growth. Resource productivity of Montenegro is expressed in the amount of GDP per unit of directly consumed material.

²³ Roadmap to a resource-efficient economy: keeping the promise of Montenegro to become ecological state, Roadmap to a Resource-Efficient Montenegro, UNHDR 2014

²¹ Domestic material consumption is an indicator which measures total material value directly consumed in the economy and is defined as annual quantity of natural material extracted in domestic territory, plus total physical import, minus total physical export. Materials which make inputs for calculation of DMC are divided into 4 categories, and their share in total flow in Montenegro was calculated for 2012 (in 000 t): biomass 347 (12.7%), fossil fuels 2.014 (73.6%), metals -96,8 (1.2%), non-metallic minerals 244.6

per capita per ton means a significant challenge, in the final option it is more realistic to project this goal for the period of 15 years, **until 2030**, since average annual reduction of DMC of 1.1% would be more realistic to accomplish. In a separate scenario 4 analysis²⁴, conducted for the purpose of NSSD drafting, a projection of this indicators change per sector was provided (Table 4-2). **Key sectors for the resource efficiency increase** include energy, construction, transport, services, i.e. tourism.

The NSSD strategic goal until 2030 to **“Improve resource efficiency in key economic sectors”** should be achieved through implementation of the following group of measures in sectors of key importance for the resource efficiency improvement:

- Improve resource efficiency through introduction of **market-oriented measures**, i.e. through introduction of economic instruments into key economic sectors (environmental taxes, fees and charges for users, trade certificates, green finances, green procurements, subsidies, permits and marketable bans); the aim of these measures is to reduce externalities or costs which can be incurred due to negative environmental impacts or consumption and depletion of non-renewable sources supplies. Unlike regulatory ones, these instruments use pricing mechanism to achieve these goals, SDG 2 (2.3), 7 (7.1, 7.a), 9 (9.1, 9.4), 12 (12.1, 12.2, 12.7, 12.c), 17 (17.4).

- Improve resource efficiency by introducing **regulatory** instruments (norms and standards, obligations and responsibilities for environmental protection, environmental control and standard implementation). Norms and standards usually target consumers, and can be set for the achievement of different goals: resource efficiency improvement, gas emissions reduction, waste reduction, etc. Norms and standards can be: emission standards, used to specify the level of allowed gas emissions in quantitative terms; ambient standards, used to set minimal air, water and soil quality levels which must be retained; technological standards, used to specify which technology must be must not be applied; process management and standards used to specify certain behavior and the way certain economic activity can be carried out; product and services standards used to specify appropriate properties of those products and services which must be met (for example, measurement rules, defining requirements for certain criteria applied in the procedure of compliance assessment). In order to determine standards for certain sectors, it is primarily necessary to take into account possible unwanted economic and social effects. In addition, setting the standards must be followed by efficient monitoring of implementation thereof and by appropriate penalty provisions in case of violations of set standards, SDG 6 (6.3), 11 (11.1, 11.3, 11.6), 12 (12.1, 12.5), 15 (15.5), 17 (17.4);

- Encourage research and development in the area of resource efficiency and human resource development, SDG 12 (12.1, 12.a, 12.c), 17 (17.3, 17.6, 17.16, 17.17);

²⁴ ISSP, Translation of recommendations of scenario 4, developed in NHDR for 2014 into sector policies for drafting of NSSD, April 2015.

- Improve information availability related to natural resources value, resource use, resource efficiency and integrate them gradually into the systems for economy performance calculation (strengthening capacities in competent authorities and publication of determined indicators, statistical tracing, monitoring), SDG 12 (12.8), 17 (17.4);
- Promote resource efficiency and valuation of limited resources (educational campaigns and innovations of curricula at all education levels, promote creation of detailed resource efficiency plans,

eco-labeling, agencies for the provision of information to consumers, information desks, objectives for the improvement of environmental quality, cooperation through voluntary actions, promotion of energy efficiency, especially in sectors of energy, construction, industry, agriculture, tourism, etc.)²⁵, SDG 2 (2.3, 2.4), 8 (8.9), 11 (11.c), 12 (12.2, 12.6, 12.8, 12.a, 12.b), 13 (13.3), 17 (17.4).

Table 4-2: Resource productivity for Montenegro,
Source: UNHDR 2014

SCENARIO 4 – RESOURCE PRODUCTIVITY FOR MONTENEGRO			
Absolute reduction of resource use by 20% in comparison to average in the period 2005-2012			
RESOURCE USE AND PRODUCTIVITY, average for the period 2005-2012			
GDP: 2,713 million €		Gross domestic product (permanent prices)	
DMC: 3,247,959 t (DMC/pc 5.2 t)		Domestic material consumption (000 t)	
RP (GDP/DMC): 835 €/t		Resource productivity (€/t)	
ESTIMATION FOR 2020			
		Total growth	Annual growth
GDP:	3,473 million €	28%	3.5%
DMC:	2,598,367 t (DMC/pc 4.0)	-20%	-2.5%
RP:	1,337 €/t	60%	7.5%
ESTIMATION FOR 2030			
Amount:		Total growth	Annual growth
GDP:	4,423 million €	63%	3.5%
DMC:	2,598,367 t (DMC/pc 4.0 t)	-20%	-1,1%
RP:	1.702 €/t	103.8%	5.8%

25 According to: ISSP, Translation of recommendations of scenario 4 developed in NHDR for 2014 into sector policies for drafting of NSSD, April 2015.

Such defined measures significantly affect: productivity and manufacture growth in agriculture, provision of available, reliable and sustainable energy; promotion of continual inclusive and sustainable economic growth; construction of resistant infrastructure, promoting the inclusive and sustainable industrialization and encouraging innovations; development of sustainable tourism to create jobs and promote local culture and products; in brief, they affect comprehensive application of sustainable patterns in all sectors of Montenegrin economy, etc.

At the same time, implementation of all the aforementioned measures related to resource efficiency will contribute to the achievement of global sustainable development goals 2, 6, 7, 8, 9, 11, 12, 15 and 17.

In addition to the above listed measures, it is possible to specify some groups of measures relevant for the sectors of key importance for the increase of resource efficiency, which is elaborated in the text below.

Energy – taking into account that energy sector participate with more than 20% in total domestic material consumption, certain procedures and measures are required to improve resource efficiency in this sector. Also, the analysis has demonstrated that resource efficiency indicators are still unfavorable – energy sector is still material-intensive; although a fall of -23.1% has been recorded, resource productivity is amongst the lowest ones (only 0.07 € of GDP per ton of used DMC is realized), while metabolic rate (reflecting the consumption of natural domestic materials per capita) has increased in this sector by 19.2%. However, taking into account still high material, energy and emission intensity, this sector has the greatest potential for the improvement of overall

Montenegrin economy resource efficiency. The energy sector mainly consumes fuels which are key resource for relevant economic activities. It is therefore of great importance, in addition to their emission intensity and adverse environmental impact, to provide secure supply of these resources to economic operators. When it comes to consumption of fuels, measures for more efficient consumption pertain to:

- creation of economic incentives for energy savings (it is possible to introduce certain fiscal measures, such as environmental tax, to incite technological innovations and consumption of non-tangible RES), SDG 7 (7.1, 7.a), 9 (9.1, 9.4), 12 (12.c);
- implementation of energy efficiency sector programs (measures applied by energy sector to support other energy intensive sectors; promoting the program for creation of detailed resource efficiency plans so as to encourage integrated approach in the production and consumption of energy, water, natural materials and waste by large consumers; assistance in technical evaluations, identification of options for resource efficiency in capacity building programs to support permanent improvements in the area of energy, awareness raising about energy efficiency and delivery of trainings, and so on), SDG 7 (7.1, 7.a), SDG 9 (9.1, 9.4), SDG 12 (12.1, 12.2, 12.c);
- promotion of investments in the area of energy efficiency, SDG 7 (7.3), SDG 11(11.c), SDG 12 (12.2, 12.8);
- greater observance of energy standards and targets with the aim to increase resource efficiency through technical improvement, SDG 12 (12.2);

- awareness raising about the importance of resource efficiency, visibility events, possible financial incentives, investments into scientific research and development, and so on, SDG 12 (12.2, 12.8).

Implementation of listed measures will contribute to the achievement of global sustainable development goals 7, 9, 11 and 12.

Construction is a sector with far greatest share in domestic material consumption, and is characterized by poor efficiency reflected in an increase of material intensity indicators by even 43%, reduction of resource productivity by 50%, and increase in DMC per capita by 25.4%. Taking into account that fall in gross added value of the construction sector did not follow in the fall of DMC indicator, and that resource efficiency has drastically worsened, this sector should also be among the priority ones for the improvement of resource efficiency.

It has been defined in the existing strategies that spatial planning should be enhanced, that quality of construction works and use of sustainable construction products should be improved, standards in terms of energy efficiency should be raised and use of renewable energy in residential buildings should be increased, and so on (Montenegro Development Directions, Construction Development Strategy, Housing Strategy). However, it is necessary to ensure continual monitoring and improvement of set goals, as well as further harmonization with international standards in this area. In other words, further standardization and improvements are required, as well as consideration of different options in order to:

- Stimulate more resource efficient use of construction materials and produc-

tion of materials, consider various options for long-term use and durability of construction materials, SDG 11(11.c), SDG 12 (12.1, 12.2);

- Reduce quantities of waste generated in construction works, enable recycling of construction material which is to great extent being landfilled, enable recycling of asphalt, concrete and other materials suitable for recycling, SDG 11 (11.6), SDG 12 (12.5);

- Apply recommendations about construction of buildings with minimal emissions, introduce energy efficient designing and building, ensure use of construction materials and products which improve energy properties of buildings, ensure appropriate building maintenance, enable and encourage reconstruction of the existing buildings, ensure use of environmentally friendly materials in construction, SDG 7 (7.3), SDG 9 (9.1), SDG 11 (11.1, 11.3);

- In addition, use of more environmentally friendly construction materials can be encouraged through: setting the criteria in procurement contracts; setting the minimal obligatory standards for buildings pursuant to EU directive on energy performance of buildings 2010/31/EU which focuses on energy efficiency, SDG 7 (7.3), SDG 12 (12.7).

Implementation of listed measures will contribute to the achievement of global sustainable development goals 7, 9, 11 and 12.

Agriculture– decoupling of gross domestic material consumption (DMC) from gross added value (GAV) has not happened in previous years in this sector, which indicates inefficient and unsustainable consumption. Although material intensity has fallen by

60%, GAV has increased by 90%, neutralizing its fall. Taking into account the importance of agricultural sector for Montenegrin economy, together with organic agriculture, this sector should be among priority ones in terms of resource efficiency. Therefore, additional measures and processes are needed to enable establishment of certain standards in this sector when it comes to resource efficiency:

- Fiscal measures, taking into account that Montenegro does not have specific environmental measures and goals for the improvement of resource efficiency and gas emissions reduction only in agricultural sector. Taxes for environmentally unfriendly agricultural activities can be introduced for use of pesticides, for example, and use of mineral fertilizers, thus influencing lower level of their consumption, SDG 2 (2.3), SDG 12 (12.2, 12.c).
- “Making the subsidies green”, i.e. further harmonization of the existing agricultural policy instruments with environmental requirements. “Making the subsidies green” is a very strong instrument for inciting the resource efficiency in agriculture. Subsidies to organic production are kind of direct environmental subsidies influencing the reduction in use of agro-chemicals and harmful environmental effects thereof. This type of subsidies is at its inception phase in Montenegro. In addition, subsidies which can incite resource efficiency are those which can be allocated to farmers to change feed to livestock. For example, most efficient livestock rearing is the intensive one (feeding of livestock with specific type of fodder and dietary supplements) compared to rearing based on grazing in grassland,

taking into account greater quantities of biomass necessary for preparation of livestock for slaughtering. Intensive livestock feeding implies use of fertilizers for the production of feed, use of abiotic resources for mechanization, water for irrigation, etc. “Making the subsidies green” supports achievement of global sustainable development goal 12 (12.1, 12.2).

- In addition, technological changes and innovations are the main factor for agricultural productivity growth, as well as for the reduction of harmful emissions, biodiversity loss, soil degradation, carbon footprint and natural material consumption. Bearing all the aforementioned in mind, in order to increase energy efficiency, it is necessary to establish certain standards, more particularly:
 - ensure the compliance with good agricultural practice code,
 - enable through new solutions more innovative technological approaches to agricultural production, thus ensuring energy savings,
 - ensure organic agriculture growth,
 - promote standards ensuring greater resource efficiency in the area of intensive agriculture and greater contribution to extensive agriculture growth, promote standards influencing the reduction of mineral fertilizers and plant protection products use,
 - further develop goals pertaining to reduction of negative environmental effects generated by agricultural production,
 - improve procedures focused on the promotion of different ways of land fertility conservation,

- develop more efficient food processing sector with reduced food losses , SDG 2 (2.3, 2.4, 2.a), 12 (12.1, 12.2), 17 (17.4).

Implementation of listed measures will contribute to the achievement of global sustainable development goals 2, 12 and 17.

Services sector (tourism)– despite low material intensity rates, there have been improvements of resource efficiency in this sector in the past period by 57.4%, and increase of metabolic rate by 26.7%. However, it is clear that due to great interrelation between tourism and other services and sectors as well, small steps towards green tourism will greatly influence greening of the entire economy. Tourism sector is a significant consumer of natural materials and generates carbon footprint– directly or indirectly through accommodation services, transport, food consummation and other. When it comes to resource use, measures for increase of resource efficiency in this sector include the following:

- making tourism green and improving the resource green from the aspect of:
 - energy consumption – in hotels and hospitality facilities there are great opportunities for investments into energy efficient forms of energy supply, SDG 7 (7.3),
 - water consumption– improvement of water use efficiency and introduction of innovations aimed at water saving, SDG 6 (6.3),
 - waste generation – reduction of waste from hospitality industry and improvement of the existing waste management, SDG 11 (11.6), 12 (12.b),
 - biodiversity protection – improved

efficiency in protection and recovery of vulnerable ecosystems, SDG 15 (15.5).

- maintenance of destination attractiveness in long run through:
 - careful planning and construction of new capacities,
 - development of environmentally friendly tourism forms which do not endanger natural and landscape values,
 - efficient touristic facilities (especially in terms of water and energy consumption), applying new heating and cooling technologies in the facilities; replacement of non-renewable with renewable energy sources (it is estimated that energy savings potentials in tourism industry amount to 20%, and that they can be achieved by using solar energy primarily),
 - improving service quality and reducing environmental impacts (pollution control, especially wastewater treatment),
 - ensuring higher level of waste recycling, increasing the use of local foodstuffs in touristic offer, etc. SDG 12 (12.b).
- green innovations which imply application of the existing, but also introduction of new standards, are of great importance for greener tourism:
 - promotion and creation of environment for the development of green innovations, and stimulating companies' interest to see possible interest in "making the tourism green",
 - creation of better pricing signals and market instruments which will be able to reduce costs incurred due to

- negative environmental externalities,
- improvement of regulation on markets where pricing signals are inefficient and introduction of green procurements to encourage green innovations,
- introduction of non-technological innovations – introduction of environmental management and marketing systems and new business and organizational models,
- promotion of waste recycling in this sector,
- development of environmentally friendly tourism forms, better new servicing capacities planning, SDG 8 (8.9) and 12 (12.6, 12.7, 12.b), 17 (17.4);

Implementation of listed measures will contribute to the achievement of global sustainable development goals 6, 7, 8, 11, 12, 15 and 17.

Other services, but also other sectors, such as accommodation, transport, trade, agriculture and so on, can directly or indirectly influence environmentally sustainable development in the tourism sector. Activation of all relevant stakeholders, from the aspect of greener economy, is very important in tourism and related sectors. Resource efficiency in tourism and related sectors requires sector policy integration – linking transport, agricultural, energy, environmental and other policies, especially in construction of major infrastructural projects. Adequate cooperation is the only way to generate most beneficial economic effects. It is also necessary to insist on: more efficient use of materials, increased use of materials with low primary energy consumption, and materials with low abiotic potentials, re-use of recycled materials, valuation of “brown-

field” instead of “greenfield” areas, green public procurements etc²⁶.

Transport and infrastructure: DMC reduction in transport and processing industry would not generate significant results bearing in mind that shares of transport and processing industries in aggregate DMC indicator for Montenegro are 1.9% and 9.7% respectively. In the scenario of DMC reduction by 20%, resource productivity in processing industry would increase by only 9.7%, while transport RP would decrease by 3.9%. As for transport, it is important to promote environmentally friendly transport forms, to define and apply incentive measures in that respect, and to apply instruments for minimization of environmental impacts of transport sector. It is necessary to apply new technologies (vehicles with lower emissions, lower fuel consumption, alternative fuels), and to introduce recycling of end-of-life vehicles. The industry is treated within strategic goals dedicated to increased competitiveness of Montenegrin industry.

4.4.3. Waste management and implementation of circular economy approaches

The importance of waste can be observed from the economic and environmental aspects. Therefore, ensuring adequate waste management is necessary to reduce environmental pressures through reduction of harmful emissions and pollution of green

26 ISSP, Translation of recommendations of scenario 4 developed in NHDR for 2014 into sector policies for drafting of NSSD, April 2015.

areas. In addition, waste can be treated as a very important input material: waste materials can be re-used, recycled and recovered. Through recycling, or energy recovery, negative environmental impact can be significantly reduced²⁷. The increase in the quantities of generated waste results in growth of negative environmental impacts, such as the progress in terms of recycling and re-use of waste results in reduction of negative impacts.

The beginning of industrialization and transition towards market-based economy brought an unsustainable model of economic growth to Montenegro, which is similar to many other developing countries “take, produce, consume and discard”; it is a linear model resulting from the assumption that quantities of materials extracted from nature are inexhaustible. According to 2013 Report of the Ministry of Sustainable Development and Tourism, estimated quantities of generated waste amounted to 243,941 tons, and in the period between 1990 and 2011, emissions of gases from waste had been reduced by only 20%. Taking into account that linear economic growth model turned out to be unsustainable and that competition for use of scarce raw materials has become ever stronger, **transition to circular zero waste economy** has become one of the prerequisites for sustainable development and increased resource efficiency.

Circular economy implies material flow within which prior decisions in the value chain are conditioned by the forthcoming activities and actions. Circular economy instruments serve to connect producers, dis-

tributors, consumers and recyclers, their actions and initiatives²⁸. Circular economy does not imply only waste prevention and reduction, but it also means innovations from the beginning to end of value chain, not only and exclusively waste recycling at the end of value chain. Therefore, introduction of circular economy implies:

- Design of more durable and suitable products for disassembly and adaptation: companies must apply eco-design principles on their products, such as e.g. minimal use of non-renewable resources, elimination of toxic elements and harmful substances as much as possible, use of renewable resources (at the level of their regeneration or low-

28 There are numerous barriers in the transition towards circular economy, and they imply: Lack of skills and investments in product design so as to make them suitable for circular economy, which can facilitate and increase re-use, recovery, repair and product maintenance; Poor pricing signals which do not sufficiently encourage re-use resources, mitigation of pollution or innovations; Lack of motivation because of, inter alia, lack of political and other measures for internalization of external costs; Insufficient inter-sectoral cooperation and cooperation between certain value chains; Limited consumers' acceptance of potentially higher number of services within a business model, e.g. leasing instead of ownership, result-based payment models. Potentially more efficient production and consumption models are even less accepted by producers and consumers; Lack of consumers' awareness (e.g. about food product perishability); Lack of investments into green procurements in many public institutions; Lack of investments into recycling and maintenance of the existing infrastructure, into innovations and technologies (confined to use of existing technologies); Insufficient waste separation according to waste types at disposal places; Lack of policy linking in different levels.

27 European Environmental Agency, Material resources and waste – 2012 update, The European Environment, State and Outlook, 2012

er), extended product expiry period and greater potentials for their re-use, and finally, facilitation of sorting and recovery of products in the final phase of their use,

- Modern circular and regenerative consumption form, from anaerobic decomposition of household waste to re-use of products,
- Cross-sectoral approach and cooperation between different actors who had not developed habits of mutual cooperation (e.g. designer and advertiser relation) in the entire supply chain in order to optimize product life cycle. This implies exchange of useful services (e.g. transport, utilities) and different by-products between various industries, thus creating synergies between companies so as to achieve economy of scales,
- Spatial clustering of cooperating companies is very important since it enables linking within the supply chain and faster exchange of remains.

In the application of circular economy concept, resource supply sources can be divided into two categories:²⁹

- Technical materials, such as minerals, metals, polymers, alloys, hydrocarbon derivatives (e.g. plastic) which are not biodegradable and are based on non-renewable materials - when it comes to technical materials, the means for the achievement of circular econo-

my are the following: re-use of products for the same or different purpose, recovery of products or new production of some of the product elements, material and material components cascading (e.g. textiles used for clothes can become textile for furniture, therefore for insulation), material recycling (at the beginning and at the end of life cycle);

- Biological materials, which have biological origin, such as the case in agriculture and forestry, non-toxic and partially degradable bio-remains and refuse- when it comes to biological materials, it is possible to apply: material cascading, biochemical substance extraction, anaerobic digestion (a process in which microorganisms decompose to organic substances, such as remaining foodstuffs, fertilizers, anaerobic sewerage sludge) and composting (biological process in which microorganisms, bacteria, fungi, insects, worms decompose organic materials into material similar to soil and fertilizer).

According to estimations from the **Waste Management Strategy of Montenegro by 2030**, quantities of waste to be generated in the forthcoming period will increase despite continual efforts to reduce quantities of generated waste. The reason for such estimation lies in the fact that living habits in Montenegro and production and consumption models have not yet come to life (linear economy versus circular economy), which would provide the basis for expectation that in the coming, relatively short time period such dynamic changes could occur and lead to reduction of generated waste. It is estimated that quantities of waste to be generated in the period until 2036 will be constantly increasing by 2% annually in local self-government units in which population

²⁹ Institute for Environmental studies, Scoping study to identify potential circular economy actions, priority sectors, material flows and value chains, August 2014.

growth is expected. Increase in quantities of generated waste is expected in local self-government units in which decrease of population is anticipated, but the percentage in these areas is expected to be 0.2% annually.

Therefore, general goal which should be achieved in the area of waste management is establishing a sustainable waste management system and constant improvement thereof. In order to achieve that general goal, the NSSD by 2030 has defined this strategic goal **“Improve waste management applying the circular economy-based approaches”** as priority one, and it will be achieved through application of the following measures:

- Encourage activities aimed at the reduction of waste generated in the territory of Montenegro, SDG 11 (11.6), SDG 12 (12.5), SDG 17 (17. 3, 17.4, 17.14),
- Apply primary selection of waste as efficient as possible, as a prerequisite for the achievement of clearly defined goals in the area of re-use and recycling of discarded materials (which implies considerable investments into the separate collection systems in the coming period, followed by appropriate awareness raising programs, SDG 12 (12.2, 12.5),
- Establish efficient waste selection and recycling³⁰ (collection, separation,

treatment, re-use of recyclables, as well as system for prevention of waste – include incentives for the development of recycling activities, stimulate secondary raw materials market and demand for recyclables), SDG 12 (12.2, 12.5),

- Develop a system for management of special waste streams (e.g. used batteries and accumulators, used tires, end-of-life vehicles, waste electric and electronic equipment, packaging waste, construction and demolition waste), biodegradable waste, sewerage sludge, veterinary waste, animal by-products, medical waste, industrial waste, SDG 12 (12.2, 12.4, 12.5),
- Circular economy approaches should be gradually introduced into the waste management system (shift from “land-fill system” to circular waste management system), applying measures for the encouragement of resource-efficient use of raw materials in production, enabling reduction of waste generation, especially of hazardous waste generation and use of waste as alternative fuel, applying the approaches based on recognition of economic and environmental importance of waste, establishing macro analysis and sector material flow analyses – MFA, and introducing related circular economy indicators, SDG 12 (12.2, 12.5), 17 (17.13, 17.14, 17.18 and 17.19),
- Improve the application of penalties in waste management, and raise awareness about the importance and advan-

³⁰ According to goals defined by the Law, at least 50% of total quantities of collected waste materials, such as glass, paper, metal and plastic, should be prepared for re-use and recycling by 2020, while in the same period it is necessary to prepare at least 70% of non-hazardous construction waste for re-use. The Law also stipulates provision of conditions for the achievement of

quantity of landfilled biodegradable waste of 35% out of total biodegradable waste generated in 2010.

tages of sustainable waste management (ecological knowledge, ecological behavior, ecological situation valuation), SDG 6 (6.b), 12 (12.6, 12.8).

Thus defined measures have significant influence on the achievement of other NSSD goals: make cities and settlements inclusive, safe, durable and sustainable, ensure application of sustainable production and consumption patterns, etc, and implementation thereof will contribute to the achievement of global sustainable development goals 11, 12 and 17.

4.4.4. Sustainable management of coastal zone resources and encouraging blue economy

Sustainable management of coastal zone resources must be contained in key economic development goals of the coastal zone, as found in the National Strategy on Integrated Coastal Zone Management (2015) which makes integrated part of the NSSD by 2030. In order to ensure conservation of the coastal zone, the key role is attributed to application of mechanisms and instruments for the sustainable development of coastal zone, where special emphasis, due to its importance, can be put on creation of conditions for diversification of the coastal zone economy.

In that context, it is important to implement measures which will stop the so far practice of agricultural parcels fragmentation and permanent disturbance of coastal zone natural properties, control the expansion of existing settlements, stop dispersed construction and reduce construction areas, and implement efficient taxing and land management policy. Measures pertaining

to the construction of highest class hotels and mixed resorts with related amenities are also necessary, as well as for the improvement of simplest forms of private accommodation in small family hotels, quality equipping and construction of touristic capacities in accordance with natural and landscape values, including the application of traditional forms of coastal architecture and so on. In the course of a touristic product shaping, it is very important to take care about adequate valuation of local natural and architectural and landscape values. This will contribute to better quality of the offer, but also to the extended duration of the touristic season. So far the hinterland and interior parts of coastal municipalities have been weakly integrated into the Montenegrin coastal touristic value chain. That is why it is necessary to stimulate rural development with the aim to diversify touristic offer, i.e. to further promote the position of Montenegro as a touristic destination at global market. Rural development should support and interconnect the interests of local communities, create new jobs, keep and affirm autochthonic cultural and historic values, at the same time being nature and environmentally friendly. Therefore it is important to restore and conserve valuable rural areas through sustainable rural development and create assumptions for the efficient use thereof.

In addition to considerable contribution to stronger touristic potential, faster development of rural areas should primarily enable increased food production (fruit – citrus, olives and olive oil) and wine. That is why measures which create conditions for economically efficient agriculture, especially from the aspect of the support to market attractive and profitable agricultural products, are of priority importance, and they include,

inter alia: enhancement of legal regulations, dissimulation of change in agricultural land use, improvement of agricultural land properties, introduction of direct green allocations to farmers, implementation of agro-ecological measures, adaptation of agriculture to climate change in coastal area, improvement of rural infrastructure, creation of prerequisites for the provision of services in areas with natural limitations, encouraging the establishment of clusters and other models for producers' organizing, introduction of innovative production and sales chains. In addition, it is necessary to increase investments into rural development, strengthen family husbandries and holdings, and support implementation of new approaches which can increase employment, thus retaining the population in rural areas, especially younger population.

Beside in the narrow coastal zone and rural hinterland, significant increase in food production is possible to achieve through conservation and valuation of marine resources through responsible multi-sectoral management. To achieve this, it is necessary to: improve information about fish stock; improve procedures for management of negative environmental impacts of mariculture and fishery – determination of environmentally acceptable sites for fishery and mariculture, development of common principles and standards for recovery of resources in fishery and mariculture and protection of marine habitats in certain sites, as well as provision of ecosystem services; improvement of fishery infrastructure, etc. It is also necessary to improve research of the open sea potentials from the aspect of blue economy strengthening. As for diversification of economic activities, attention must be paid to the activities which will enable interconnecting of fishery and touristic industry.

In addition to previously mentioned measures, the platform for conservation of coastal zone resources and diversification of coastal economy require application of the following important measures: provision of support to making the coastal development green through the support to the development of green entrepreneurship – strengthening local entrepreneurship infrastructure, provision of stimulative financing programs and improvement of product quality³¹. Taking into account that these measures can be applied in all parts of Montenegro, they will be addressed in the section dedicated to competitiveness growth and job strengthening (strategic goal 4.6).

The NSSD strategic goal for the period until 2030, **Enable sustainable management of coastal zone resources and encouraging blue economy**, should be achieved through implementation of the following measures identified by the NSICZ:

- Conserve attractiveness of coastal zone for the development of sustainable tourism, SDG 12 (12.2, 12.b), 14 (14.2), 17 (17.4),
- Restore and conserve valuable rural areas, SDG 8 (8.2), 10 (10.2, 10.7), 12 (12.2), 14 (14.5),
- Support sustainable valuation and conservation of marine resources, SDG 12 (12.2), 14 (14.1, 14.2, 14.4, 14.5, 14.6, 14.c), 17 (17.4).

Thus defined measures have significant impact on the achievement of the fourteenth global sustainable development goal – to

31 Ministry of Sustainable Development and Tourism, National Strategy on Integrated Coastal Zone Management of Montenegro, Government of Montenegro, 2015, pp. 157–161.

conserve and sustainably use oceans, seas and marine resources for sustainable development, as well as other global sustainable development goals: make cities and human settlements inclusive, safe, durable and sustainable, as well as ensure the implementation of sustainable production and consumption patterns. Therefore, the implementation of the aforementioned measure contributes to the achievement of global sustainable development goals 8, 10, 12, 14 and 17.

4.4.5. Sustainable consumption and production

Introduction of instruments for sustainable consumption and production should support efforts aimed at transition to green, non-polluting and socially inclusive economic activities, contributing to the decoupling of economic growth and resource consumption and environmental degradation as generators of resource-inefficient economy. Moreover, principles and practice of social responsibility additionally strengthen corporate responsibility in their efforts to influence positively the society and environment.

Adoption of the 10-Year Framework of Programs on Sustainable Consumption and Production Patterns ³² meant reaffirmation of international political support to the application of sustainable consumption and production patterns. Other important documents for Montenegro adopted in the Mediterranean region and in the EU include the following: Declaration of ministers for en-

vironment and climate change from May 2014 within the Union for the Mediterranean Ministerial Conference, which recognizes sustainable production and consumption together with depollution and prevention of pollution in marine ecosystems as a priority pillar for actions; Regional action plan for sustainable consumption and production in the Mediterranean under the auspice of the Barcelona Convention, which defines operational goals and actions for introduction of the sustainable consumption and production patterns in the Mediterranean region, as well as the European Commission documents, which through a range of initiatives supports transition towards sustainable production and consumption in compliance with the EU sustainable consumption and production policy and sustainable industry from 2008; Roadmap to a resource efficient Europe; the EC Communication on circular economy, and so on. Defining the goals and measures in the area of sustainable production and consumption within NSSD by 2030 harmonizes the national sustainable development policy of Montenegro with the European priorities, enables linking thereof to the support programs which will be available for Mediterranean countries and establishes a platform for the fulfillment of obligations arising from the global Sustainable Development Agenda by 2030 (goals 8, 9 and 12 in particular).

Sustainable production and consumption should be achieved through combined implementation of different measures, with participation of decision makers and relevant policy makers, business sector, science, civil society organizations and consumers so as to redesign the production and consumption pattern and enable revitalization of industrial and socio-economic development towards economy which does not pollute,

³² UNEP, 10-Year Framework of Programs on Sustainable Consumption and Production Patterns (10-YFP), 2012.

is a low-carbon one, generates less waste, is a resource efficient, socially inclusive, green and circular one. On that way, there are numerous available mechanisms and instruments of sustainable production and consumption, such as: green entrepreneurship – green entrepreneurship incubators, eco design and eco-labeling of products and services, promotion of new green business models; regulatory instruments for the promotion of sustainable service and product markets – green procurements, eco-labeling; economic and financial instruments – green banking, tax and fees reform, encouraging the demand for sustainable services and products; development of knowledge about sustainable production and consumption – partnerships for research and development, dialogue between science and policy makers, specialized study programs in the scope of higher education, etc.

Starting from the analysis of problems in the area of sustainable consumption and production within this Strategy and Report “Roadmap to a Resource Efficient Montenegro” from 2014, and priorities identified in the Mediterranean region, the key sectors for the introduction of sustainable consumption and production patterns, i.e. achievement of the NSSD strategic goal pertaining to the **support to making the economy green and application of operational instruments of sustainable consumption and production**, recognized by this Strategy include: tourism, construction, food production, fishery and mariculture, processing industry. In order to achieve this goal, the following measures should be implemented as a priority:

- Develop and promote practices and solutions for sustainable consumption and production which support efficient

use of natural resources and reduction of environmental pressures, SDG 8 (8.4), SDG 12 (12.2), 17 (17.14), 11 (11.b),

- Develop regulatory framework for the support to sustainable consumption and production, SDG 12 (12.2, 12.7),
- Raise awareness and promote knowledge about sustainable production and consumption, SDG 12 (12.2, 12.8, 12.b), SDG 17 (17.7).

Thus defined measures create a basis for the implementation of global sustainable development goal 12 which pertains to the provision of sustainable consumption and production patterns, but they also have significant influence on the achievement of the following global sustainable development goals: promotion of continual, inclusive and sustainable economic growth, full and productive employment and decent job for everyone; construction of durable infrastructure, promotion of inclusive and sustainable industrialization and encouraging innovations (SDGs 8 and 9). To sum up, implementation of the above listed measures will contribute to the achievement of global sustainable development goals 8, 9, 12 and 17.

4.4.6. Social responsibility

The activities on introduction and promotion of socially responsible business principles and practice, i.e. of the **social responsibility** (SR), have been intensified in the course of past decade at global, but also at Montenegrin level. The key moment in that sense was the adoption of ISO 26 000 standard Guidelines for social responsibility, recognizing responsibility of all organizations functioning of which results in environmental and social impacts. A number of researches and studies have been conducted

addressing the concept and application level, legal and institutional framework for SR, needs for the provision of favorable environment, numerous round tables and conferences have been held, and the UN Global Compact Network has been launched.

Roles and responsibilities of public, business and civil sectors for the development of SR differs in terms of functions served by different social actors in encouraging and applying the concept, but not in terms of the fact that all sectors play their roles and have responsibilities in the accomplishment of these tasks. A significant activity which influenced the aforementioned was the establishment of the Network for Social Responsibility in July 2013, as a coordination body of the Ministry of Sustainable Development and Tourism. A specifically important fact is that work of this network, but also its promotional, educational and other activities within the initiatives for the promotion of social responsibility has been supported by civil society organizations and business associations, which took part in all the relevant activities.

The NSSD strategic goal for the period until 2030 to **“apply social responsibility in practice of all sectors in compliance with positive European and international experience”** should be achieved through implementation of the following measures:

- Promote the concept of social responsibility (SR) and raise awareness about the values and importance of SR, i.e. about benefits for organizations implementing SR, SDG 12 (12.2, 12.6), SDG 17 (17.9, 17.14),
- Strengthen the application of, SDG 12 (12.6, 12.7), SDG 17 (17.14),

- Increase the number of companies applying the SR principles systematically in their business, which regularly report about that, SDG 12 (12.6).

Thus defined measures significantly influence the ensuring of sustainable consumption and production patterns, at the same time contributing to the improvement of sustainable policies coherence. Implementation of the above listed measures will contribute to the achievement of global sustainable development goals 12 and 17.

This strategic goal which pertains to socially responsible behaviors is related to measures defined in section 4.2.4. Overcoming the problem of managerial deficit and strengthen socially responsible business, which incorporates the issue of managerial deficit and modalities for overcoming the related problems (through an increase in innovative and entrepreneurship potentials of Montenegrin companies).

4.4.7. Growth of the Montenegrin economy competitiveness

Macro competitiveness, i.e. national economy competitiveness is the ability of a country to enable specialization of its national resources towards GDP growth and increased standard of the population, along with solid macroeconomic policy and overall environment for business and investments³³. Macro

³³ According to OSCE definition (macro) competitiveness is a measure of a country ability in free and equal market conditions to produce goods and services which meet international market requirement, at the same time retaining and increasing population income in long run. At the same time, micro competitiveness is the ability of a company to participate and win in global

competitiveness is based on the efficiency of the national economy, which also includes **resource efficiency**. Competitiveness was recognized in the Montenegro Development Directions for the period 2015–2018 as one of key policy areas within the smart growth pillar (competitiveness and foreign direct investments – FDI), and it is also a horizontal topic in the Development Strategy Small and Medium Enterprises for the period 2011–2015, Strategy for the Encouragement of Foreign Direct Investments, Strategy of Sustainable Economic Growth through Introduction of Clusters for the period 2012–2016, Strategy for the Encouragement of Competitiveness at Micro Level for the period 2011–2015, and so on.

An increase in industry efficiency and competitiveness and SME sector can be inter alia encouraged by measures for stimulation of resource efficiency and innovations, such as: promotion of technologies and control processes in industry, modernization of production, increased degree of finalization, introduction of new technologies, improvement of measurements and measurement methods, environmental management and audit, along with modifications and improvement of the production assortment. It is also necessary to consistently implement environmental regulations in the shift to cleaner technologies, integrate damages caused by environmental pollution and degradation into company costs, improve the access to financial sources and capacity development (advice, consultancy services) for SME for in order to enable implementation of resource efficient approach, etc.

In addition to the above listed measures, the platform for conservation of natural resources of Montenegro and economy di-

versification is also composed of measures important for the provision of support to greening the jobs and creation of new jobs, along with the support to development of green entrepreneurship, such as: strengthening local entrepreneurship infrastructure, provision of stimulative financing programs and improvement of product quality. With adequate support, entrepreneurship sector can recognize and use opportunities for green innovations and related green investment and jobs. In that way entrepreneurship ability for adaptation in volatile market circumstances is also developed.

Functioning of clusters and other producers' organizational models is also necessary, as well as setting of quality standards for different product types, contributing to recognition and credibility of products from Montenegro. In that context, quality certification systems should be stimulated for products with protected geographic origin and traditional and ecological products, as well as creative branding and marketing of domestic products for more successful placement on the domestic and foreign market.

Finally, in addition to allocations from the state budget, incentives for green activities should be supported by the development of green banking and use of relevant EU program funds. For particularly innovative and risky projects special grant programs should be provided and maximally focus on absorption of available EU funds.

With regard to the aforementioned, the NSSD strategic goal for the period until 2030 – **“Increase the level of Montenegrin economy competitiveness for sustainable development and green jobs”** – should be achieved by implementing the following measures:

offer of a specific product or service.

- Encourage competitiveness of Montenegrin companies through measures for stimulation of resource efficiency and investments, SDG 8 (8.1, 8.2, 8.3, 8.5), SDG 9 (9.2, 9.3), SDG 17 (17.1, 17.3, 17.14);

- Strengthen local entrepreneurship infrastructure and business environment for growth and development of entrepreneurship, SME and investments, SDG 8 (8.3, 8.4);

- Launch and implement stimulus financing programs so as to enable better availability, accessibility and approach to finances for entrepreneurs and SME, especially for innovative and export-oriented companies, SDG 8 (8.3, 8.10), SDG 17 (17.9, 17.14);

- Improve product and service quality to establish the environment for creation of green jobs, SDG 2 (2.3, 2.4, 2.5), SDG 12 (12.2), SDG 17 (17.14).

Thus defined measures will contribute to achievement of global sustainable development goals 2, 8, 9, 10, 12 and 17, i.e. to the promotion of continual, inclusive and sustainable economic growth, full productive employment and decent jobs for everyone; reduction of inequalities within countries; ensuring the application of sustainable production and consumption patterns.

4.5. Improvement of the sustainable development governance system

With regard to found weaknesses and challenges in the sustainable development policy implementation, **the answers to key challenges in the sustainable development governance system** can be grouped through application of the following **strategic approaches**:

- **Integration:** integration of environmental matters in economic planning and integration of social matters into the solution of primary needs recognized in the process of millennium development goals implementation, primarily from the aspect of poverty reduction, equality, employment and health.

- **Coherence:** compliant with the messages of the final Rio +20 summit document, the need for coherent planning and decision making process through collaboration and vertical coordination of the national and local administration levels, as well as through strengthened collaboration and horizontal coordination between subject responsible for sector planning and implementation of sector policies was stressed.

- **Inclusion:** establishment of an efficient coordination good governance mechanism for sustainable development, enabling efficient and effective participation of relevant subjects outside the public administration system, primarily of the business, banking and

civil sectors, into the decision making process affecting them, as well as in the provision of answers of importance for the development which meets the needs of population and takes into account long-term effects of the actions undertaken in that way.

- **Implementation:** elimination of gaps between the obligation of reaching the sustainable development and results achieved in the framework of sustainable development policy implementation, i.e. enabling of integration, inclusion and coherence, and establishment of a complete and efficient monitoring and reporting system pertaining to the progress made in the sustainable development policy implementation.

With respect to the above, **the NSSD strategic goals for the period up to 2030** include:

- Strengthening the system of governance for the sustainable development;
- Strengthening the environmental management system through application of environmental protection instruments;
- Implement the institutional organization reform for sustainable development governance system;
- Establish the monitoring system of the national development sustainability, including the shift from the millennium development goals monitoring to the monitoring of the sustainable development goals implementation;
- Establish a long-lasting sustainable system of financing for sustainable development.

4.5.1. Strengthening the sustainable development governance system

Transformation of the existing governance capacities for the implementation of sustainable development policy into a modern, efficient and accountable system of governance for sustainable development must be based on measurable results and performances of public administration work, on continual improvement of competences of civil servants, strengthening governance transparency and program earmarked budgeting of the sustainable development priorities.

Defining the desired outcomes versus the found problems, one should select the priorities and related goals and responses for strengthening of the sustainable development governance system. It is necessary to ensure continual objective monitoring of the expected effects in departments, administrative bodies and institutions, their organizational units and individuals, with respect to thus set outcomes. The indicators of final effect must be defined taking into account the complexity of measured results, resource availability and data. In addition, it is necessary to ensure objectivity, simplicity and quantitative measurability of the achieved progress. Since the set goals do not necessary have to generate satisfying results and effects in practice, monitoring of real effects is the most important mechanism for the assessment of implementation of strategic policies and plans of importance for the sustainable development of society.

The core of good governance for sustainable development must also include accountability for the achieved (in) effect, predictability in acting and observance of regulations, as well as quality inclusion of all relevant

parties. This approach must ensure stronger personal accountability for the achievement of set goals compared to the working plans, and obligations of accurate setting of tasks, obligations and expected effects.

At the same time, evaluation must be fair, i.e. based on application of justified, clear and unambiguous criteria. It is necessary to interlink all evaluation systems and award systems for the above-average work results and penalization of inactivity.

It is necessary to strengthen professionalism in synergy with the increased motivation of employees, through inter alia introduction of a competitive salaries system and result-based promotions. Flexible wages increase system can improve the ability of public sector to attract, employ and retain highly motivated and professional civil servants. Financial motivation of civil servants in state administration in general, especially those actively working on the implementation of obligations referred to in the NSSD, is an important prerequisite for successful implementation of sustainable development policy. Otherwise, public sector becomes attractive for employment of those people whose competences, knowledge and abilities are not attractive enough outside the public administration system. Taking into account that increase of salaries in public administration system which would make this sector more competitive cannot be expected, it is necessary to apply criteria to encourage professionalism in acting, accountability for the achieved results, fair evaluation of the achieved results and conditions for the promotion, secure employment, etc.

Participation of all stakeholders, especially impartial one and based on participation of professional public, must be encouraged

in public debates and planning processes of importance for sustainable development of society, satisfying the broadest public interest to maximal possible extent.

Improvement of the governance transparency is of particular importance, and it should be achieved through timely provision of information to the interested public and through increased opportunities of public to express its opinion and remarks thus influencing the work of public administration in early stages of decision making process and in implementation of regulations, public policies, programs and projects.

In order to achieve the NSSD strategic goal **“Strengthen the sustainable development governance system”** it is necessary to implement the following priority measures:

- Establish measurability of results achieved in public administration work, SDG 16 (16.6, 16.7, 16.10, 16.b), 17 (17.9, 17.18, 17.19);
- Strengthen participation of interested and professional public in decision making and implementation processes of relevance for the sustainable development, SDG 16 (16.6, 16.7).

Achievement of the above listed measures will contribute to the accomplishment of sixteenth and seventeenth sustainable development goals.

4.5.2. Strengthening environmental management system through application of environmental protection instruments

The measures defined within strategic goals pertaining to strengthening of the system for sustainable development governance, reforms of institutional organization of the sustainable development governance system, monitoring of sustainability of the national development and financing of sustainable development are all relevant and **contribute to strengthening of environmental management through the improvement of application of environmental protection instruments** as a specifically important component of Montenegrin sustainable development governance system. For the protection of human health and environment, it is specifically important to **apply instruments for sustainable strategic and spatial planning, strengthen the enforcement of adopted regulations and efficient monitoring over their enforcement**. This is why this strategic goal also defines only those priority measures aimed at inciting the application of the existing and introduction of new instruments for strengthening of application of horizontal legislation in the area of environmental protection. That set of instruments shapes institutional capacities in the area of environmental protection and more significantly determines the efficiency and effectiveness of vertical coordination between central and local level, and strengthens capacities in public administration and institutions both at state and local levels. Strengthening environmental protection instruments by overcoming defined weaknesses and lacks requires real, rather than declarative, integration of environmental protection requirements into sector policies and plans.

In this group of instruments, specific importance is recognized in the establishment of **environmental information system in compliance with the INSPIRE Directive** which regulates infrastructure of spatial data of importance for environmental management. This infrastructure should contain numerous data sets crossing, overlapping and analyzing of which can generate significant revelations about environmental status, cause and consequence relations of environmental pressures, as well as of character intensity and spatial dispersion of their impacts. Such information system should enable data exchange at all levels, including operators of industrial facilities, other companies and general public, and should enable data processing for measurement of environmental sustainability which is the core of the national development sustainability. In addition, it should provide for all necessary data for calculation of all sustainable development indicators which are relevant for environmental protection, i.e. monitoring of progress in the achievement of related objectives and sustainable goals. Therefore, this information systems must be compatible with the information system and database for the processing of sustainable development data (sustainable development indicators from the UN list, national indicators, international indicators, and complex indicators) and with the platform for reporting the status of implementation of NSSD in the period by 2030. In the establishment of the environmental information system compliant with the INSPIRE Directive, upgrade of the so far implemented activities should be ensured with regard to the establishment of environmental information system in the Environmental Protection Agency.

It is necessary to **improve the application of strategic and project environmental impact**

assessment, at the state and local levels³⁴, as well as the system for issuing integrated permits³⁵ and enable synchronization of integrated permits issuing with the planned issuing of permits for greenhouse gases emissions (within the EU Emissions Trading Scheme for GHG)³⁶. Doing so should eliminate the weaknesses in implementation of the procedure for drafting the strategic impact assessment particularly pertaining to: insufficient information for the assessment implementation, unsatisfactory capacities of entities implementing the assessment and administration conducting the assessment, implementation of assessment as formal procedures in the adoption of planning documents, i.e. obtaining of permits for implementation of project activities, insufficient taking of public comments into account (sometimes even of institutions obligatory consulted) and others. In addition, it is necessary to establish monitoring over the implementation of measures for elimination and mitigation of negative environmental impacts identified in studies and reports on environmental and strategic impact assessments. Regulations pertaining to environmental impact assessment do not adequately recognize specificities of environmental impacts or potential environmental impacts of certain interventions³⁷.

34 European Commission, Progress Report for Montenegro, 2015.

35 UNECE, Third Environmental Performance Review for Montenegro, 2015.

36 Ministry of Sustainable Development and Tourism, National Climate Change Strategy by 2030, Government of Montenegro, 2015.

37 Ministry of Sustainable Development and Tourism, National Strategy for Integrated Coastal Zone Management of Montenegro, Government of Montenegro, 2015.

Establishment of PRTR Register is needed – pollutant release and transfer register, which should contain data about sources, type, quantity, manner and point of release, transfer and disposal of pollutants and waste in the environment. This should enable the establishment of publically available database about emissions of pollutants to air, water and soil and generation of waste from different sources, taking into account relevant requirements of European legislation and UNECE Protocol on Release and Transfer Registers (Kiev, 2003). This will improve availability of data of importance for decision making process and assessment of the reduction and prevention of pollution, health of population, modeling of pollution influence on human health and life quality by improving environmental performance in industrial establishments and by introducing cleaner technologies.

Further capacity building of environmental institutions, in addition to classic methods (employment of new employees and specialization of the existing ones), requires particularly important enabling of rationalization of administrative burden where this is recognized as necessary and feasible. Beside the necessary increase in number of environmental inspectors, enforcement activities of environmental inspectorate should be improved by enhancing the quality of conducted enforcement checks in standardized procedures. It is necessary to implement parallel trainings of environmental inspectors and judicial officials in terms of implementation and enforcement of environmental regulations.

In compliance with the above stated, in order to achieve strategic goal **“Strengthening environmental management through improvement of application of environmen-**

tal protection instruments”, the following measures should be implemented as priority ones:

- Improve the application of systemic environmental management instruments, SDG 16 (16.6, 16.10, 16.10), 17 (17.14, 17.18, 17.19), paragraphs 47–48, 72–90 of the 2030 UN Agenda for Sustainable Development ;
- Conduct the analysis of compliance of sector policies with environmental requirements and integrate the environmental requirements into sector policies and plans³⁸, SDG 16 (16.6, 16.7, 16.8, 16.10, 16.b), 17 (17.9, 17.13, 17.14, 17.19), paragraphs: 5, 18, 21, 54–59 and 60–91 of the 2030 UN Agenda for Sustainable Development;
- Strengthen the capacities for monitoring over the enforcement of environmental regulations, SDG 6 (6.a, 6.b), SDG 16 (16.6, 16.7, 16.b), SDG 17 (17.13 and 17.14,17.15).

Implementation of the above listed measures will contribute to the achievement of global sustainable development goals 6, 16 and 17.

4.5.3. Implementation of reform in institutional organization of the sustainable development governance system

The functional systemic approach in implementation of sustainable development policy and sector policies is the core of the answer to problems specifically attributed to the existing sustainable development governance system. It is necessary to strengthen institutional capacities and ensure more efficient cooperation at all levels of state administration, as well as between public administration and civil, business and private sectors, and academia, so as to enable integrated planning at strategic (sector and horizontal strategies, plans, programs) and operational level (projects), thus creating conditions for implementation of sustainable development goals and tasks. Institutional coherence and harmonization of sector policies and sector answers should be embedded in everyday actions of state authorities and institutions at local and national levels, as well as of entities outside the public administration system. It is necessary to ensure purposeful engagement of all relevant stakeholders in order to achieve common goal – sustainable development of Montenegro. Active participation of local self-governments and civil society organizations is of specific importance for resolving the problems which influence citizens' life.

Taking into account that lack of cross-sectoral coordination as a problem that is present to the extent which endangers prospects for sustainable development³⁹, the reform of sustainable development governance system should eliminate fragmentation of competent public administration bodies, lack of harmonization between them and

³⁸ The measures defined in the National Strategy for Integrated Coastal Zone Management of Montenegro

³⁹ UN, Synthesis overview of national reports on implementation of sustainable development policies prepared within the participation at Rio+20 Summit, 2012.

overlapping in the areas of key importance for sustainable development of a society. As an example, we can refer to competencies in the area of waters. Water management and protection and use thereof, including the adoption of regulations, are all under the competence of the Ministry of Agriculture and Rural Development, while the Ministry of Transport and Maritime Affairs is responsible for the prevention and application of measures in case of sea pollution caused by vessels, and Ministry of Sustainable Development and Tourism for integrated coastal zone management, integrated protection of sea against pollution, waste and waste waters management, system of communal services, and environmental monitoring. Mutually non-harmonized and uncoordinated competences are a serious obstacle for functional implementation of sustainable development policy, which was found in the European Commission progress report for Montenegro in the EU accession process. As a part of forestry policy, the stressed problem was related to joining of policies in the area of forestry and hunting, which can be negatively reflected to sustainable forestry management. The reformed system of forestry management has not yet been introduced, which would clearly define responsibility of all participants. Integration of inspection services into a unique administration body – Administration for Inspection Affairs, line ministries have to certain extent lost direct control over an important instrument for the enforcement of laws and bylaws and programs. At the same time, integrated functioning of inspection services has demonstrated certain advantages – more efficient and synchronized actions of several services, especially in the subject of inspection is covered by several jurisdictions, and use of means needed for functioning of inspection services is observed to

be more rational. In some areas of inspection control and enforcement, competences at the national and local levels are not precisely defined by regulations.

The reform of sustainable development governance system must eliminate the obvious lack of human resources in public administration bodies. Engagement of civil servants with relevant professional background and references must be ensured for the implementation of sustainable development activities in all relevant state administration organizational units both at national and local levels. Doing so, a network should be established to include civil servants capacitated to answer to challenges of the efficient functioning of horizontal cross-sectoral coordination, especially in terms of challenges in implementation of sustainable development goals and tasks set forth by the Sustainable Development Agenda by 2030. It is necessary to provide continual devising and implementation of programs for professional specialization which should be based on pre-set needs and carefully selected priorities, thus inciting the interest in participation in such programs and introducing the obligation of continual professional specialization. International cooperation and exchange of experience can significantly contribute in that context. In addition to capacity building through specialization trainings, it is necessary to increase number of civil servants in all institutions in the sustainable development governance system, including all levels of managerial and civil servant human resources. When it comes to capacities at local level, it is necessary to initiate training programs of importance for sustainable development, from basic to professional ones, taking into account that status of the existing capacities in considerable number of municipalities is not at

satisfactory level. As a positive example, we can mention functioning of the service for environment and sustainable development in the capital city.

Specifically important aspect in strengthening the sustainable development governance system is to connect the sustainable development policy with application of relevant scientific knowledge. Still, despite the expressed commitment in that respect, institutional form for guidance of professional and scientific knowledge and skills for implementation of sustainable development policy has not yet been established. Finalization of transformation of the Centre for Sustainable Development, which functions as a program jointly implemented by the United Nations Development Programme, Country Office Montenegro (UNDP) and the Government of Montenegro following the model of “close partnership” through successful establishment of their functions in terms of directing scientific research for the improvement of sustainable development policy and sector policies, can be an opportunity to strengthen informed decision making based on scientific and professional knowledge, i.e. can increase efficiency and effectiveness of sustainable development policy.

Representatives of institutions responsible for monitoring of obligations defined in the National Strategy for Sustainable Development mainly incompletely report on the achieved progress. This is confirmed by lack of trained staff, motivation and professionalism in institutions with competences for implementation of sustainable development policy. Although the Decision on the establishment of the Coordination Body for Sustainable Development has prescribed obligations of bodies and institutions to

report on progress, it is obvious that those obligations are inadequately fulfilled. Lack of knowledge about the concept of sustainable development, lack of awareness about obligations in context of implementation of sustainable development policy, and unintentionally dealing with this issue, are all serious systemic limitations. In overcoming this problems of functioning and connecting institutions can be contributed by the establishment of a unique database which would be accessible by civil servants appointed for sustainable development-related activities.

The existing capacities for implementation of sustainable development policy in the Department for sustainable development and integrated coastal zone management in the Ministry of Sustainable Development and Tourism should be strengthened, primarily from the aspect of number of staff. A focused systemic approach must be established in implementation of strategic and legislative framework for sustainable development. If connecting of umbrella and horizontal sustainable development policy to the competencies of line ministry responsible for environmental protection is continued, which is most commonly with very limited influence to sector policies and disposes of insufficient financial means, possibilities for progress in achieving sustainable development goals would be additionally threatened.

Adoption of the 2030 Agenda for Sustainable Development imposes the necessity for consolidation of institutional framework for sustainable development. In addition to steps undertaken at international level, primarily through strengthened functioning of the High Level Political Forum, a real step forward is possible only through strengthening of national systems for sustainable development governance. This can

be achieved through strengthening the existing institutional capacities, especially of those which are responsible for central coordination, including the upgrade of legislative and strategic framework and transformation of declarative political commitment into strong mechanisms of political support to the achievement of sustainable development goals and tasks.

In accordance with the above stated, and taking into account positive international practice and models for sustainable development governance established in some states, such as Costa Rica and Germany, according to a model used at the beginning for the development of institutional model for organization of the sustainable development governance system in Montenegro, it is necessary to maintain the organization of the sustainable development governance system at **two levels: political and professional-administrative ones.**

At the **political level** of action, it is necessary to strengthen implementation of decisions made by the **National Council for Sustainable Development, Climate Change and Integrated Coastal Zone Management by strengthening capacities of its professional bodies.** Applying the mechanisms of vertical and horizontal institutional coordination, especially in the functioning of all its bodies, the National Council should enable more efficient:

- mitigation or overcoming of problems caused by the fact that diversified institutional organization, complicated by fragmented and insufficiently differentiated competences between certain sectors and institutions are not supported by appropriate coordination and integration structures and mechanisms

of importance for the implementation of sustainable development policy,

- application of institutional coordination mechanisms and undisturbed flow of information in creation of public policies and determination of guidelines for the proposal of legal acts of importance for sustainable social development,
- functional cross-sectoral horizontal coordination at the national level between line ministries in the Government,
- functional cross-sectoral horizontal coordination between local self-governments and vertical coordination between the national governance level and local self-governments,
- implementation of multi-disciplinary approach in the development of plans, programs and public policies.

At the professional-administrative level, functioning of the National Council should be promoted through **strengthening of cross-sectoral cooperation through the activities of the Coordination Body for Sustainable Development.** This body should implement successfully its key functions so as to:

- act as a “think-tank” forum for discussions of important questions related to sustainable development of Montenegro,
- professionally consider and assess documents, expert analyses, regulations, programs and plans of importance for the implementation of sustainable development policy,
- initiate projects which enable practical implementation of priorities in im-

plementation of sustainable development policy.

The listed functions should strengthen the support of the Coordination Body to the National Council for Sustainable Development, Climate Change and Integrated Coastal Zone Management. The Coordination Body should include representatives appointed at professional level from all relevant line institutions, professional institutions civil sector and other relevant entities of importance for sustainable social development.

Compatible with the functioning of the Coordination Body, professional working groups of the National Council should continue their work in compliance with the mandate defined in decisions on the establishment of the Council. With respect to the Coordination Body, working groups should act as professional bodies of the National Council, which is focused on the support in preparation of expert materials considered by the National Council, taking into account recommendations and guidelines of the Coordination Body as wider professional forum for sustainable development-related matters.

Public consultations on draft NSSD by 2030 has opened a question of reform of the National Council for Sustainable Development in the way that it should convert from the advisory body of the Government of Montenegro into a state council, with additionally strengthened participation of civil, business and scientific sectors. In public consultations, the question stressed as a priority was the one pertaining to strengthening of the role of the Montenegrin Assembly in implementation of sustainable development policy. With respect to requirements to take into account the assessment referred to in docu-

ment "Analysis of Achievements and Challenges of the Ecological State, 20 years of the Ecological State of Montenegro" from 2011, and most predominantly those pertaining to the adoption of the National Strategy for Sustainable Development by the Parliament of Montenegro, and establishment of the parliamentary board for the monitoring of implementation of the sustainable development policy, it is estimated that at this stage of reform of the sustainable development governance system, it should be enabled that the Government informs the Parliament about the results of implementation of the NSSD by 2030.

Numerous problems which characterize implementation of the sustainable development policy at local level, as well as certain examples of the so far positive practice, indicate the need for the establishment of the **councils for sustainable development at local level**, especially for harmonization of strategic development plans for municipalities with the requirements of the NSSD by 2030.

Implementation of sustainable development policy also includes a key issue of capacity building for implementation of sustainable development policy which is in the existing circumstances organized through horizontal positioning and functioning of the **Department for sustainable development and integrated coastal zone management within the Ministry of Sustainable Development and Tourism**. The professional team responsible for drafting of NSSD by 2030 has developed three models of this unit functioning which were a subject of cross-sectoral consultations and consultations with interested public within the public consultations:

- **THE EXISTING SCENARIO – “BUSINESS AS USUAL”:** promotion of the existing structure of the Department through increase in number of staff and promotion of their references for professional work in the course of implementation of sustainable development policy;

- **REAL SCENARIO:** transformation of the Department into a separate sector – Directorate General, with responsibilities for implementation of sustainable development policy;

- **OPTIMAL SCENARIO:** functioning of a unit with responsibilities for implementation of sustainable development policy at the Prime Minister Office.

Moreover, attention was paid to institutional structure which should enable:

- respect of institutional rationalization principle,
- efficient use of limited human and financial resources,
- institutional framework which can respond to a complex set of requirements in the context of implementation of sustainable development policy,
- determination of model for realization of close cooperation between institutions which have competences in implementation of policies of importance for sustainable development,
- improvement of cooperation between the national and local levels.

In case that the existing business-as-usual scenario continues to be in place, the Department for sustainable development and integrated coastal zone management should

be strengthened in terms of number of staff and their professional references, so as to enable growth of administrative capacities by hiring at least new trained civil servant annually in the period between 2016 and 2020. In the real scenario of functioning of a separate general directorate for sustainable development, it is necessary that certain groups of activities should be structured into separate units which should:

- perform duties of a secretariat to the National Council for Sustainable Development, Climate Change and Integrated Coastal Zone Management,
- coordinate implementation of the NSSD and regularly report about the degree of implementation thereof, including the establishment and management of the platform for monitoring of implementation of sustainable development policy applying the sustainable development indicators,
- pursue regional and international sustainable development policy,
- launch and implement project and program activities for sustainable development,
- support functioning of scientific-research platform for the support to sustainable development policy.

In the optimal model, taking into account that earlier practice had demonstrated significant advantages of functioning of a separate Office for Sustainable Development within the Secretariat General of the Government, it should be good to establish a unit for implementation of sustainable development policy in the Prime Minister Office. This solution could be estimated as a realistic one in the existing circumstances,

and it is at the same time in accordance with proposals made in public consultations on draft NSSD by 2030. Namely, the interested public expressed a unified opinion about the need for the establishment of a central unit for implementation of sustainable development policy, which would be horizontally positioned with respect to other line institutions responsible for implementation of sector strategies, and it would enjoy strong political support needed for implementation of systemic changes required by the process of harmonization of sector policies with the NSSD by 2030, i.e. with the 2030 Agenda for Sustainable Development of the United Nations, restructuring of financial system for sustainable growth and allocations for implementation of sustainable development policy, as well as for the establishment of a complex system for progress monitoring and reporting about the progress in implementation of the NSSD by 2030. In addition to implementation of the NSSD by 2030, i.e. of the 2030 Agenda for Sustainable Development, this unit should also be responsible for implementation of key horizontal policies which are the core of sustainable development policy, such as climate change policy. It is a matter of long-term and complex process of change in usual patterns of actions which should include all administration levels, adoption and implementation of strategic policies, plans and programs. In that context, it is justified to establish the Office for Sustainable Development at the Prime Minister Office, which would be responsible for implementation of sustainable development policy of Montenegro. Sufficient highly professional civil servants should be ensured to function in the area of sustainable development, not less than 10 of them in the initial phase of this unit operation. In addition, it is necessary to ensure continual strengthening of administrative

capacities with the ambition to establish by 2020 a functional line institution for implementation of sustainable development policy, bearing in mind capacities which will be built by the time in the Centre for Sustainable Development through provision of support in implementation of the NSSD by 2030.

The public consultations reaffirmed the importance of separation of institutional organization for implementation of sustainable development policy from the implementation of environmental protection policy, both due to horizontally broader context, and to very limited possibilities of influence of environmental sector to other sector policies. At the same time, it was required to establish a self-standing line institution with enough capacities to provide answers to all obligations resulting from the constitutional commitment of Montenegro as ecological state, and from the EU approximation process of Montenegro.

Regardless of the form of institutional organization of the sustainable development governance system, it is necessary to ensure functional cross-sectoral cooperation and horizontal capacity building of all line institutions with respect to the obligation of implementation of the national sustainable development policy and related sector policies. In addition to capacity building at the national level, it is necessary to build capacities in local self-government secretariats for implementation of sustainable development policy at local level. In order to implement sustainable development policy at the state and local levels, it is necessary to ensure at least one full-time civil servant who would be responsible for professional work in this area within certain line institutions and local self-government units. Their mu-

tual cooperation and coordination should be ensured through functioning of the National Council and working bodies thereof, i.e. through efficient and effective coordination in implementation of sustainable development policy by the unit which will have that competence in the forthcoming period.

Putting the professional and scientific knowledge and skills into pursuing of sustainable development policy should support overcoming of problems generated due to insufficient existing implementation capacities of the sustainable development governance system. This is the reason for such importance of the decision made by the Steering Committee of the Centre for Sustainable Development, adopted in April 2016 after a comprehensively organized consultation process, that its functioning by 2020 should continue in the form of a joint program to be jointly implemented by the Government and UNDP according to the model of close partnership. This decision is in accordance with the Memorandum of Understanding concluded between the Government of Montenegro and UNDP about the establishment of the Centre for Sustainable Development in December 2013. The Centre's program framework will be harmonized with needs for implementation of the NSSD by 2030, i.e. of the Sustainable Development Agenda by 2030, thus getting out from a narrow framework of the so far program support provided to public sector in the area of environmental sustainability and bridging the gap between the use of relevant scientific knowledge and pursue of sustainable development policy. Instead, priority activities will be supported in all four groups of national resources: human, social, economic and natural ones, in accordance with goals and measures of the NSSD by 2030 and possibilities for allocation of

funds through frameworks which will be accessible for UNDP, as well as within the budget of Montenegro, specifically stressing the importance of activities focused on introduction of green economy. In addition to projects, a very important component of the program framework of the Centre for Sustainable Development will pertain to the provision of professional support from the aspect of efficient introduction of sustainable development into the national regular monitoring system. Achieving such a defined program framework by 2020, the Centre will build capacities which are prerequisites for a comprehensive transformation into a national institution in 2021. Visibility of the Centre in the South East European region will be continuously improved with the aim to encourage quality partnerships and exchange of knowledge for sustainable development.

In order to implement its program framework through provision of support to the National Council for Sustainable Development, Climate Change and Integrated Coastal Zone Management, and to the Ministry of Sustainable Development and Tourism (i.e. to the unit within the administration system which will in the forthcoming period, upon the reform of the sustainable development governance system, be responsible for implementation of sustainable development policy), and through coordination mechanisms of the National Council and other line institutions and entities responsible for implementation of the NSSD by 2030, the Centre for sustainable development will carry out the following key functions:

- **connecting the science and sustainable development policy in order to strengthen the sustainable development governance system** which implies

provision of support to more efficient and effective sustainable development policy by relying on quality data and credible scientific research results; the core of this function of the Centre will include corporative rules of the United Nations functioning, according to which human needs are a drive for all our actions, and support to the development of human and social capital must be embedded in all forms of social-economic actions;

- **project implementation** within priority themes of the NSSD by 2030, with the focus on activities which are: priority ones in the period by 2020 and harmonized with the corporative rules of the United Nations functioning, possibilities for allocation of necessary funds and initiation of functional partnerships in national and international frameworks;

- **awareness raising and development of knowledge about sustainable development** through support to cooperation between the Government and UNDP and local self-governments, civil and business sectors, academia, social partners (within the application of mechanisms of vertical and horizontal institutional coordination of the National Council), strengthening visibility in international context and promoting the education for sustainable development at all levels.

The listed functions of the Centre for Sustainable Development will be accomplished by applying the instruments for: development and implementation of projects, research and innovations for informed and knowledge-based implementation of sustainable development policies. In order to establish its own program framework, by

the end of 2016 and in first half of 2017, the Centre will apply for license for scientific-research activities, and in cooperation with members of the Steering Committee it will draft protocols on: the joint model for management of the Centre by the UNDP and Government of Montenegro, reporting, communication and public presentation of the Centre work, partnerships and framework for financing (from the funds available to the UNDP and from the budget of Montenegro). Based on such defined protocols, a strategy will be developed for the action of the Centre in mid-term period by 2020, with a vision of long-term integration into the national institutional system for sustainable development governance, as well as a study for building the necessary capacities of the Centre, with regard to the mentioned context. Based on such prepared and harmonized documents, amendments will be drafted to the Memorandum of Understanding between the Government of Montenegro and UNDP on the establishment of the Centre for Sustainable Development from December 2013.

Taking into account all the above stated, priority measures for the achievement of the strategic goals of the NSSD by 2030 – **Implement the reform of institutional organization of the sustainable development governance system** include specifically the following measures:

- **Strengthen the political support to the sustainable development policy, SDG 16 (16.6, 16.7, 16.8, 16.b), SDG 17 (17.1, 17.3, 17.9, 17.13, 17.14, 17.15, 17.16, 17.17, 17.19), paragraphs: 5, 18, 2 1, 39-91 of the 2030 UN Agenda for Sustainable Development;**
- **Strengthen the professional-administrative level of implementation of the sustainable development policy, SDG**

(16.6, 16.7, 16.8), SDG 17 (17.3, 17.6, 17.7, 17.8, 17.9, 17.13, 17.14, 17.15, 17.16, 17.19), paragraphs: 3, 5, 21, 39-41, 45-48, 54-59, 60-91 of the 2030 UN Agenda for Sustainable Development.

Implementation of the above listed measures will contribute to the achievement of global sustainable development goals 16 and 17.

4.5.4. Establishing the system for monitoring the sustainability of the national development, including the monitoring of implementation of sustainable development goals

Non-existence of a **functional monitoring system for the implementation of the sustainable development policy** is a key problem in the sustainable development governance system. Measuring and assessing the effectiveness of measures implemented within the NSSD enable the registration of changes which are result of their implementation. In that way, in addition to monitoring of planned – expected ones, it is possible to monitor the unplanned changes which can cause additional difficulties in implementation of the sustainable development policy. Namely, it can be assessed that the basis for monitoring of implementation of the sustainable development policy measures is made of three reasons: to evaluate progress in implementation of the defined goals, measures and actions, to revise the initial goals, measures and actions based on that information in the interactive implementation process, thus enabling comparison of situation and trends, both in national and international context. Based on the achieved progress, periodical adjustment of goals, measures and actions being monitored is conducted.

Although in the course of previous period of monitoring of implementation of the Action Plan for the NSSD from 2007, numerous obligations were defined with the aim to ensure further development of the monitoring and reporting system, the planned progress was not achieved. Therefore: weaknesses in information system were not eliminated, especially in the context of elaboration of the initial set of sustainable development indicators; new indicators were not introduced which could not have been introduced into the monitoring system in 2007; the problems were not eliminated related to lack of and/or unavailability of data and use thereof for monitoring of changes in the achievement of defined goals, measures and actions and evaluation of effects of their implementation; knowledge and experience were not improved in application of indicators as modern mechanism for decision making based on elaborated and objective criteria and accordingly systematically collected and comparable time data series. In addition, one of the main causes for such situation was not eliminated in the previous period – mutual incompatibility of the existing databases and unsatisfactory communication and data exchange between numerous institutions with competences for implementation of the NSSD measures. This primarily pertains to mismatch of data published by competent institution – Statistical Office – MONSTAT, and data published by certain institutions, administration bodies, public and scientific institutions, data collected by public administration and professional institutions, as well as to considerable mismatch of the structure, content and methodology of collection of listed data groups with relevant international context, such as reporting systems of certain multilateral UN agreements, European Environmental Protection Agency, but also of

the EUROSTAT. Besides, sector data is quite often not prepared and adjusted to the use thereof in other sectors, thus considerably reducing its practical use.

It is not rare that attention to this issue is paid only in the context of communication needs in accordance with requirements of some international institutions, primarily in the context of negotiations for Montenegro membership in the EU, which partially explains the way of the so far system functioning. In addition, insufficient capacities (technical, human, financial) in institutions responsible for data collection and storing also posed a problem.

The NSSD from 2007 contained a number of indicators, especially process indicators, which were related to certain NSSD measures. In some areas pertaining to certain types of social processes, goals and measures were not defined as quantified and precisely measurable ones, but they rather had qualitative character taking into account they pertained to outcomes of long-term actions of more stable nature, which could not lead to changes in short, or even in mid-term period. According to its structure, the NSSD indicators included different types, such as process indicators, impact or outcome indicators (or status indicators), taking care whether the proposed indicators were already being monitored in Montenegro, or whether it was estimated that it was possible to derive them with relatively small efforts and in shorter period of time. The indicators which required implementation of long-term changes in systems of statistical processing and monitoring were not taken into account. In order to ensure comparability of the national trends to those which were relevant in international context, the indicators taken as baseline were those de-

veloped within the Mediterranean Strategy for Sustainable Development adopted in 2005, sustainable development indicators at the EU level and indicators of the millennium development goals. Although the obligation was defined that in the course of the NSSD implementation possibilities should be explored for the obtainment of technical support in monitoring the sustainability indicators, especially those which at the time were not monitored and calculation of which was not easily feasible, during the five-year period of implementation of the NSSD Action Plan, the level of initially proposed indicators remained.

In order to overcome these problems, the NSSD by 2030 has defined the system structure for **the monitoring of implementation of sustainable development policy of Montenegro** in the period by 2030, as well as measures for the promotion of information system and databases status. In that context, the axis of the monitoring and reporting system will be 17 sustainable development goals and related 169 tasks defined in the 2030 Agenda for Sustainable Development of the United Nations. A set of 241 related sustainable development indicators published by the UN Statistical Committee in March 2016 should enable collection and processing of data needed to measure progress in achieving the sustainable development goals and monitoring of related trends.

The seventh chapter of this Strategy contains the **platform for transposition of the UN sustainable development goals and indicators into the national context**, so as to enable maximum possible connecting thereof to the monitoring of progress in implementation of measures defined in the Action Plan to the NSSD by 2030, already

in the earliest implementation phase. The complexity of the UN sustainable development goals and number of related sustainable development indicators, conditioned a comprehensive analysis of the complex national institutional system with the aim to establish a long-lasting stable and functional monitoring system over implementation of the sustainable development policy. Recommendations of the Second Committee of the UN General Assembly indicate the need for the provision of support to countries to define and establish the national systems for monitoring the implementation of the UN goals, tasks and indicators in the forthcoming two-year period.

At this moment, the UN member states do not have enough capacities for quick transposition of all 17 goals into their national contexts⁴⁰. This is why it is expected to gradually take over the sustainable development goals in processes which require both horizontal and vertical coordination of institutions with competences in the area of sustainable development system functioning. When it comes to sustainable development goals which should be introduced into the national framework, several key issues are recognized, more particularly: how the goals influence planning of the national development and selection of priorities for implementation, in which national policies and in what way they should be integrated and so on. Implementation of sustainable development goals is also compatible with processes related to fulfillment of obligations within the implementation of numerous UN multilateral agreements. The aforementioned indicates the essentially important

role of the UN members states governments in enabling a successful implementation of sustainable development goals, and the need for careful planning and establishing of a national monitoring system and evaluation of sustainable development goals in the forthcoming two-year period. The UN sustainable development goals and indicators transposed into the Montenegrin context will enable **monitoring of national trends and establishment of a reporting system important in both national and international contexts**, primarily reporting to the UN Statistical Committee and the UN Economic and Social Council (ECOSOC). Transition of the existing national institutional framework towards an organizational model which can efficiently implement the UN sustainable development goals also requires a consistent relationship to the reform of the sustainable development governance system. Namely, it is necessary to encourage integrated functioning in accordance with measures defined within the strategic goal – **implementation of reforms in institutional organization of the sustainable development governance system**. It is a long-term process which implies application of complex mechanisms of responsibility and establishing of partnerships, primarily with the United Nations system.

The Action Plan to the NSSD by 2030 has defined institutions responsible for the implementation of goals and measures defined herein, that is, for the implementation of goals and tasks defined in the UN Sustainable Development Agenda by 2030, as follows: National Council for Sustainable Development, Climate Change and Integrated Coastal Zone Management, Ministry of Sustainable Development and Tourism, Ministry of Foreign Affairs and European Integrations, Ministry of Labor and Social Welfare,

⁴⁰ UNDP Regional Centre in Istanbul: Recommendations for implementation of sustainable development goals in Montenegro, 2015.

Ministry of Interior, Ministry for Human and Minority Rights, Ministry of Agriculture and Rural Development, Ministry of Economy, Ministry of Health, Ministry of Finance, Ministry of Transport and Maritime Affairs, Ministry of Education, Ministry of Science, Ministry of Justice, Ministry for Information Society and Telecommunication and Ministry of Culture.

In addition, a part of competences also belong to: local self-governments, Association of Municipalities, Commission for Securities, Environmental Protection Agency, Customs Administration, Administration for Inspection Affairs, Statistical Office of Montenegro – MONSTAT, Institute for Hydrometeorology and Seismology, Directorate for the development of small and medium enterprises, Investment-Development Fund, Agency for Tobacco, Bureau for Education Services, Office of the National Coordinator for Fight against Trafficking in Human Beings, Directorate for Public Procurements, Directorate for Human Resources, University of Montenegro – Institute for Marine Biology, Institute for metrology, Chamber of Economy of Montenegro, Employment Service, Fund for Health Insurance, Pension and Disability Insurance Fund, Institute for Public Health, Council for the protection against discrimination, Directorate for Youth and Sport, Directorate for Diaspora, Directorate for the Protection of Cultural Resources, Centre for conservation and archaeology of Montenegro, National Museum of Montenegro, Maritime Museum of Montenegro, other public and private museums and museums of religious communities, National Library of Montenegro “Đurđe Crnojević”, State Archive of Montenegro, Historic Archive of Kotor, Montenegrin Academy of Sciences and Arts (MASA), Doclean Academy of Sciences and Arts (DASA), municipal public institu-

tions, Secretariat for development projects, Cabinet of the Deputy Prime Minister for Political System, Employers’ Union, Directorate for Forests, Public Enterprise National Parks, Regional Park Piva, CETI Ltd., Public Enterprise for Maritime Domain Management, Biotechnical Faculty, Accreditation Body of Montenegro, international development partners, healthcare institutions, local centers for culture, international development partners, civil society organizations and informal cultural actors. The Ministry of Finance is responsible for certain number of sustainable development tasks, but its responsibilities are quite broader and pertain to all sustainable development goals and tasks in terms of the provision of conditions for sustainable financing of implementation of the 2030 Agenda for Sustainable Development of the United Nations. As a part of consultation process organized for preparation of the NSSD by 2030 for the adoption by the Government of Montenegro, institutions recognized as relevant ones for implementation of measures defined in the Action Plan confirmed the proposed division of duties.

The UN Sustainable Development Agenda by 2030, in its paragraph 5, indicates the necessity for respect of different circumstances, capacities and levels in countries, as well as respect of national policies and priorities, while its paragraph 55 reads that sustainable development tasks are aspiration and global ones, so that national governments establish their own specific tasks led by global level of ambition and taking into account national circumstances, i.e. they decide the way how to introduce such global aspirations and goals into their national planning processes, policies and strategies. With regard to that, besides NSSD, other key national policies must also be harmonized with the requirements of the UN Sustainable

Development Agenda by 2030. That is why the NSSD by 2030 besides transposing the UN sustainable development goals and tasks into the sustainable development policy, will also establish a basis for their introduction into relevant national policies, plans and programs. That is why in the forthcoming two-year period detailed studies should be conducted to analyze national institutional system in order to confirm and elaborate mechanisms and measures defined herein in the establishment of an operational system for transposition of the UN sustainable goals and indicators into the national monitoring and reporting system and harmonization of the existing national strategies, programs and plans with the sustainable goals and tasks. In that context, relevance of sustainable development tasks should be determined by 2017 for the existing national policies, programs and plans, and with respect to that responsibilities of competent institutions should be defined. By 2017, it is also necessary to define gaps in horizontal and vertical administrative aspects in terms of capacities needed for transposition of sustainable goals and indicators, so as to finalize harmonization of the existing relevant strategies, programs and plans by 2018.

By 2019 it is necessary to establish information system for processing of sustainable development indicators and prepare the first pilot report about the implementation of the NSSD by 2030. That report should contain processed data about sustainable development indicators which by that time will be introduced into the statistical monitoring system. Namely, a special set of the NSSD governance measures pertains to **implementation of research and analyses needed for monitoring of success in implementation of sustainable development policy**. Process of data collection needed for application of

sustainable development indicators will be set up in such a way to ensure comparable time series and data continuity, as well as to gradually broaden the program for monitoring of sustainable goals and indicators based on them.

The analysis of the existing status demonstrates that out of 241 sustainable development indicators, 49 are fully monitored in Montenegro (20.3% of total number), with 34 more being monitored partially (making additional 14.1% of total number). It is necessary that official and administrative producers of statistical data introduce in their working programs additional 54 sustainable development indicators from the UN list by 2018, thus achieving reporting in the scope of 56.8% of total number of indicators in Montenegro. In the period 2018-2020, it is necessary to introduce 32 more sustainable development indicators from the UN list so as to enable that 70.1% of total number of indicators is monitored in Montenegro. In the period 2020-2022, it is necessary to introduce 24 indicators more, which would enable reporting to the extent of 80.1% of total number of indicators from the UN list. Adoption of additional 27 indicators in the period 2022-2024 would create conditions for monitoring on 91.3% indicators from the UN list. Establishing such a complex system for monitoring of implementation of the sustainable development policy, i.e. 2030 Agenda for Sustainable Development of the United Nations, is not possible without satisfactory development level of human resources needed for strengthening of data collection and processing system. This will require adjustments of the existing institutional organization and working programs of the official and administrative statistics producers which must be followed by increase in number of staff and budget allocation. This Strat-

egy introduces into the reporting system on implementation of the sustainable development policy also available national indicators (in groups, as presented in Chapter 7) which were estimated as possible indicators for the monitoring of sustainable development of Montenegro. A specific reporting value in the forthcoming period will be introduction of selected **complex indicators** for cumulative monitoring of trends in sustainability: **Ecological Footprint (EF)**, **Human Development Index (HDI)**, **Gender Inequality Index (GII)**, **Domestic Material Consumption (DMC)**, **Resource Productivity (RP)**, **Land Consumption (LC)**, **Social Progress Index (SPI)**, **Genuine Progress Index (GPI)**, **Environmental Democracy Index (EDI)** and **Environmental Performance Index (EPI)**, taking into account that they were intentionally developed or proposed for the improvement of the national sustainable development policy by 2030.

The NSSD by 2030 also defines governance measures needed for the **establishment of an information system and databases** as key instruments for the monitoring of implementation of sustainable development goals and indicators. Data exchange between different data producers and their mutual compatibility is the basis for smooth functioning of the information system for monitoring of sustainable development policy. In addition to mutual linkages and compatibility, it is extremely important to promote public data availability. Moreover, Chapter 7 hereof defines the structure of optimal monitoring system based on application of sustainable development goals and indicators.

A specific set of governance measures in the NSSD pertains to the **provision of necessary funds** for implementation of research and analysis needed for the collection and pro-

cessing of data within the application of sustainable development indicators, especially in the context of widening the scope of statistical programs which should be implemented by official and administrative data producers, primarily the Statistical Office of Montenegro – MONSTAT. The listed needs and obligations can be summarized in the following measures which as a priority should be implemented by 2030 so as to achieve the NSSD goal **“Establish a system for monitoring of sustainability of the national development, including monitoring of implementation of the sustainable development goals”**:

- Enable continual implementation of the program for transposition of sustainable development goals into the national context and building the national capacities for their efficient implementation in the forthcoming two-year period, SDG 16 (16.6, 16.7, 16.b), SDG 17 (17.9, 17.14, 17.15, 17.16, 17.17, 17.18, 17.19), paragraphs: 3, 5, 21, 39–41, 45–48, 54–59, 60–91 of the 2030 UN Agenda for Sustainable Development;
- Establish the information system for monitoring of the NSSD based on sustainable development goals and indicators, SDG 17 (17.9, 17.16, 17.18, 17.19), paragraphs 3, 5, 47–48, 54–59, 72–91 of the 2030 UN Agenda for Sustainable Development.

In addition to the previous goal, the strategic goal **“Establish a long-term financial system for sustainable development”** should be achieved so as to ensure building of an efficient sustainable development governance system. This strategic goal with related measures and sub-measures is elaborated in the fifth chapter herein **“Financing for Sustainable Development”**.

5



Financing for sustainable development

The National Strategy for Sustainable Development of Montenegro has defined principles, strategic goals and guidelines for the achievement of long-term social development, taking into account current status and taken international obligations. The Strategy also defines guidelines for long-term economic and social development, as well as for environmental protection, in order to ensure sustainable development.

All sectors strategies, policies, development plans and programmed must be harmonized with the Strategy so as to integrate therein all sustainable development goals and development.

Financing for sustainable development makes an integrated part of all drafting phases, as well as of the adoption and implementation of the NSSD, and throughout sustainable social development governance, which incorporates:

- a) three pillars of sustainability (economy, environment and social development),

b) four capitals of national resources (human capital, social capital, natural resources and economic capital)

c) three pillars of the UN support in implementation of activities aimed at the achievement of sustainable development goals (social inclusion, democratic governance, sustainable economic development and environmental protection),

With regard to the sustainable development strategy, financing for long-term sustainable social development sets about the existing development and financial framework of Montenegro and goals of the UN Agenda for sustainable development by 2030 (the baseline for the NSSD drafting). Financing for sustainable development makes an integrated part of the Strategy through its Action Plan (strategy drafting and implementation). Establishing the institutional mechanism for sustainable development governance with the provided budget for financing is the assumption for achieving the NSSD goals, i.e. for the obligation towards future generations and international obligations taken by the state of Montenegro as a UN member state, which has committed to contribute to sustainable development of the planet Earth.

5.1. The main principles of financing for sustainable development

In the NSSD context, the main principles of financing for sustainable development include the following:

- integrated approach to financing for sustainable development – mobilization of national and international funds; mobilization of public and private sectors;
- principle of cooperation – financing for sustainable development is achieved through cooperation and joint actions of the Parliament, Government and local self-government units, as well as of all other stakeholders within their areas of competence and responsibility with the aim to protect the environment; the Government and local self-government units, within their areas of competence and financial capacities, solidary and jointly, participate in implementation of environmental protection within their competences, in order to ensure economic development on sustainable bases and implementation of efficient environmental protection measures;
- principle of fulfilment of internationally taken obligations and participation in global partnerships – the state ensures cooperation and solidarity in resolving and financing global and interstate agreements, through cooperation with other state and by entering into appropriate agreements, as well as by informing other states about transboundary environmental impacts, environmental accidents and international environmental information exchange;

- the principle of transparency and accountability – good governance, with a specific focus on accountability and fair redistribution of mobilized funds for sustainable development, is a basis for implementation of the UN Agenda for sustainable development by 2030; transparency in the decision-making process, establishing clear rules and accountability for different actors and ensuring the collected and available data to all stakeholders, both in the country and abroad – is a premise for success in implementation of the UN Agenda for sustainable development by 2030. The developed and impartial system of accountability will enable the country to achieve sustainable development goals and will provide financial and non-financial resources for the achievement thereof; this principle is complementary to:

- one of key sustainable development principles, and this is the principle of access to information and public participation (every person has the right to be informed about environmental status and to participate in decision-making process implementation of which could affect the environment; environmental data is public);
- the principle of protection of right on healthy environment and access to justice – a citizen or a group of citizens, associations thereof, professional of other organizations, are able to participate in decision-making processes related to environment and are entitled on legal protection before competent authorities and courts.

- consistency of sustainable development policies– policies at all levels and in all sectors must also be harmo-

nized through financial matrix so as to achieve sustainable development goals;

strengthening standards of social, economic and environmental development through effective policies and practice based on financial sources – mobilized international public financing sources should contribute to implementation of core international documents and fulfilment of internationally taken obligations, supporting their realization through an integrated approach; protective measures in the area of social, economic and environmental development should be harmonized with international standards and best practices;

- the principle of efficiency and coordination – governance for sustainable development implies sustainable finances, so as to enable the country to implement internationally taken obligations and sustainable development goals by 2030 – to acquire “ownership” over the sustainable development process at the national level; the new agenda for sustainable development requires a clear financial framework for the NSSD which is implemented in strong cooperation of all relevant actors – public sector and civil society, private sector, national and local levels; application of this principle reduces the risk of degrading certain goals or presenting them as conflicting to other sustainable development goals, and of leaving certain areas not covered financially;

- further development of the financing for sustainable development model – it is necessary to develop further the mechanisms of international financing for sustainable development which start from the existing financial principles and internationally taken obli-

gations, but taking into account latest documents (Addis Ababa Action Agenda and the UN Agenda for Sustainable Development by 2030)¹.

5.2. Sources of financing for sustainable development

When sources of financing for sustainable development are considered, measures encouraging sustainable development must also be sensitive to climate change, have reasonable environmental effects and respect human rights².

The main sources of financing for sustainable development should include the state budget, but also local self-government budget and earmarked funds. The funds can also be provided from donations, loans, international assistance programmes, as well as from the EU instruments, programmes and funds, UN programmes and other relevant partners of Montenegro.

As for the revenue side of the budget, good practice recognizes special fees (such as pollution fees based on “polluter pays” principle), while the expenditure side can include a range of economic instruments affirming sustainable development principles. Name-

ly, legal entities and entrepreneurs applying technologies and products, and placing the products on the market effects of which are more favourable than those of similar ones, and entities using renewable energy sources (sun, wind, biogas, and so on), equipment and devices directly contributing to environmental protection, can get tax relief, customs or other benefits or exemption from payment obligations. Special regulations can prescribe benefits for services and products comprising organized return of packaging or otherwise reduced adverse environmental impacts thereof, and promote use of such products or services which contribute to avoidance and reduction of waste. In addition, subsidies or other forms of support can be introduced for activities which considerably contribute to the reduction of adverse environmental impacts³. Flow of national and international funds of significance for sustainable development financing is presented in Chart 5-1.

Local self-government units, within the scope of their rights and duties, can prescribe fees for the protection and improvement of environment, in accordance with their needs and specific local environmental aspects. Yet, this approach did not turn to be implementable in practice, taking into account that it is not possible to introduce double taxation on a single basis (this is why the attempt in the Municipality of Pljevlja to introduce fees for use of natural resources in the municipality failed).

With regard to that, it is important to say that the Law on Local Self-Government

¹ World Wide Fund for Nature, WWF, Financing for sustainable development, Position paper, January 2015, str. 3-4; http://awsassets.panda.org/downloads/wwf_fsd_position_paper.pdf and draft law on Environmental Protection, Government of Montenegro, 2.7.2015. (Articles 5, 75 and 76);

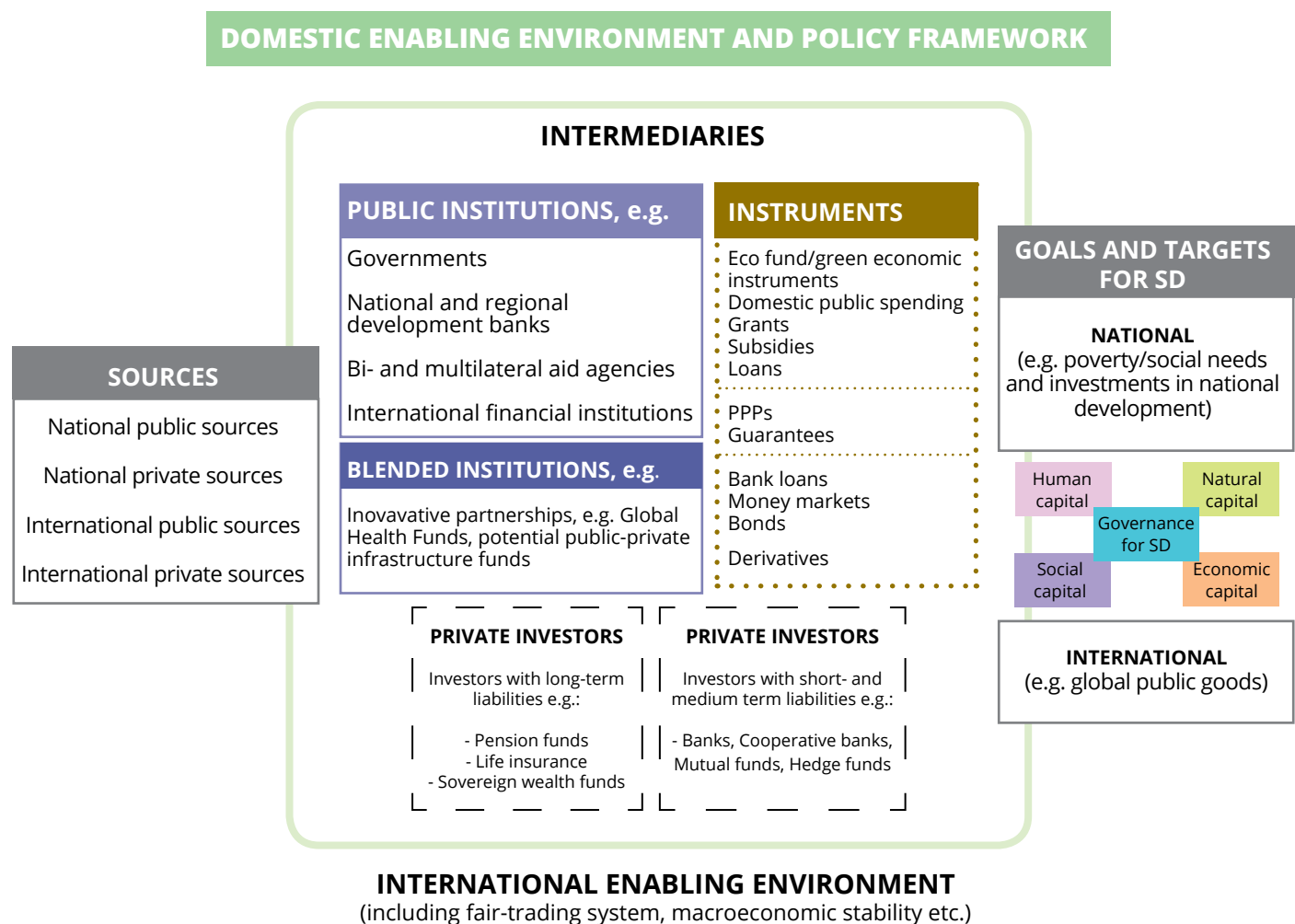
² Ibidem.

³ The Law on the Environment (Official gazette of Montenegro, no. 48/08, 40/10, 40/11 and 27/14), Articles 57-63 refer to financing for sustainable development.

Table 5-1: NSSD: baseline, strategy, implementation, financing and governance

BASELINE	STRATEGY	IMPLEMENTATION OF NSSD					SUSTAINABLE DEVELOPMENT GOVERNANCE
STATUS ASSESSMENT OF OUR NATIONAL RESOURCES (human capital, social capital, natural resources, economic capital)	THE NATIONAL STRATEGY FOR SUSTAINABLE DEVELOPMENT	HORIZONTAL COMPLIANCE					1.INSTITUTIONAL MECHANISMS and governance for sustainable development (observing the main principles of sustainable development and principles of transparency and participation)
Taken international obligations including the UN Agenda for Sustainable Development by 2030, new sustainable development goals (17) and Addis Ababa Action Agenda with financing mechanisms for sustainable development		IMPLEMENTATION THROUGH ACTION PLAN					2. INTEGRATED MONITORING OF STATUS OF NATIONAL RESOURCES through implementation of NSSD - progress reports on implementation of AP
Processes in the Mediterranean, UNHDR reports		(measures for the achievement of strategic goals - priority measures and sub-measures; institutions responsible for implementation; deadlines; sustainable development indicators and measuring sustainability)					
The EU accession negotiations		ACTION PLAN FOR IMPLEMENTATION					
Lessons learned from implementation of the first NSSD and the existing sector strategy and input analysis for the new NSSD		principles, strategic goals and guidelines for the achievement of long-term sustainable social development (development of national resources)	2016-2030				
	3. MONITORING THE SECTORAL HARMONISATION of regulations and implementation of sector strategies and policies						
MID-TERM DEVELOPMENT AND FISCAL STRATEGY OF MONTENEGRO: macroeconomic and fiscal guidelines, Development directions, Economic reform programme, Reforms for competitiveness by 2020 (structural reforms)		FINANCING FOR SUSTAINABLE DEVELOPMENT					4. Compliance with the country fiscal strategy framework, obligations taken in the EU accession process and Competitiveness Agenda
		(harmonized with the fiscal strategy)					
		Budget	Loans	EU IPA	Private sector	Global partnership	

Chart 5-1. Flow of national and international funds for sustainable development financing



Financing⁴ has set forth that 70% revenues gained from issued concessions and other fees for use of natural resources on the territory of the subject municipality shall be returned to the municipality⁵.

It is of crucial importance that the stated financial sources are well coordinated and mutually complementary, and to ensure that sector policies are mutually consistent, which should be to great extent achieved through strengthening of the sustainable development governance system, especially of the line ministry, the Ministry of Sustainable Development and Tourism and the National Council for Sustainable Development, Climate Change and Integrated Coastal Zone Management, as well as of the Ministry of Foreign Affairs and European Integration, bearing in mind the role of this ministry in coordination of sector for the EU pre-accession support and role of the Ministry of Finance in the implementation of fiscal strategy.

4 Article 28 of the Law, Official gazette of RM, no. 42/03, 44/03, Official Gazette of Montenegro, no. 5/08, 51/08, 74/10, 1/15, 78/15 and 3/16.

5 Law on Self-Government Financing prescribes that from 1 January 2011, municipalities shall be entitled to 70% instead of earlier 30% of revenues from concessions and other fees for use of natural resources on their territories. The same shall apply to revenues from concessionary fees for exploitation of forests from 2012, while revenues from concessionary fees for use of ports in the amount of 50% will go to respective municipalities from 2013.

5.3. Environmental finance

Implementation of environmental protection policy requires significant financial resources. The success in the achievement of environmental protection goals depends on the success in ensuring additional, permanent and stable financial sources. Lack of stable and effective environmental financing is the most considerable weakness in environmental management system, therefore significantly reducing the chances for the establishment of an efficient financing system for sustainable development in accordance with the UN Agenda for sustainable development by 2030.

Funds for environmental protection financing are used for conservation, protection and improvement of the environmental performances in compliance with the strategic documents and regulations of Montenegro. The NSSD, as a comprehensive and long-term development strategy, observes the financing for sustainable development in its integral context and focuses on conservation of all national resources. Pursuant to the Law on the Environment, the funds can also be provided from private sources through concession system, public-private partnership (PPP) and other financing models.

In addition to the listed main principles of financing for sustainable development (Section 5.1), application of which should promote consistency of sectoral and sustainable development policies, key principles of environmental finance include:

- the principle of mobilization and effective use of environmental financing

sources which should be implemented through establishment of the Eco Fund, which would integrate earmarked funds for implementation of environmental projects from the state budget, local budgets, environmental fees based on “polluter pays” principle, the EU pre-accession funds and from structural funds when Montenegro acquires full EU membership, from loans, the UN and other relevant international partners’ funds;

- the principle of mobilization of funds for environmental protection from private sources, which should be implemented through concession system (“user pays” principle), attraction of foreign investments into green economy, through public-private partnership and other models, which is in accordance with recommendations of the World Wildlife Fund (WWF) – public-private partnerships are viable and favourable sources with full respect of Montenegrin sustainable development goals;
- the principle of incentives implementation, which should be applied by state and local authorities, so as to encourage in compliance with their competences activities which will prevent or reduce environmental pollution, as well as interventions in the environment which will reduce use of substances, raw materials and energy and ensure lower environmental pollution;
- financial aspects of the prevention principle (risk minimization), precautionary principle (assessment of expected impacts), and the principle of subsidiarity (when the state applies remediation in cases of unknown polluters).

In addition to traditionally understood biodiversity and ecosystem values (such as conservation of natural balance and maintenance of favourable living conditions), recent global trends in the world more commonly consider (despite methodological constraints and reservations of ethical nature) their economic value⁶. Integration of values of services provided by ecosystems into the economic account leads to a different image of the necessity for conservation of habitats and species (and natural capital in general), thus creating a basis for the development of resource-efficient economy⁷. As already mentioned in the assessment of natural values, valorization of natural capital and ecosystem services has not been so far applied in Montenegro to a significant extent. This type of information is not taken into account in the adoption of development decisions, so ecosystem services, clean air and water keep being treated as free resources, and fees for exploitation of natural resources quite commonly do not cover full costs that such activities generate for the environment and society. Efforts have not been made to include the values of natural resources (or damage resulting from degradation of resource basis and pollution) into calculation of GDP or company

6 Examples of global and European studies addressing economic values of biodiversity include Millennium Ecosystem Assessment from 2005, The Economics of Ecosystems and Biodiversity (TEEB), transitional (2008) and synthesis (2010) reports, study prepared for the European Commission in 2008 by Braat, L. and ten Brink, P. (eds.), The Cost of Policy Inaction: the Case of not Meeting the 2010 Biodiversity Target, etc.

7 UNDP, “National Human Development Report 2014, Towards a resource-efficient economy”, The United Nations Development Programme (UNDP), Country Office Montenegro, Podgorica, 2014.

balance sheets either⁸. Actually, one of the main principles of the European resource efficiency policy – getting the prices right – has not been adequately integrated into Montenegrin laws and policies, or it is not applied. The Law on the Environment and environmental policy had set forth polluter pays and user pays principles, and the basis for the application of economic instruments (pollution fee primarily) has been in place since 1997. The way these instruments are administered has not, however, generated tangible results – they have not been applied consistently, and have not provided for appropriate incentives for change of behaviour and shift to more efficient patterns and production patterns which generate lower pollution level. Similar situation is in the area of users' fees, concession and so on, which have not been (still) sufficiently stimulative to ensure efficient use of natural resources, such as waters, water course materials and forests.

Pursuant to the Law on the Environment and Regulation on the remuneration, method of calculation and payment of fees for environmental pollution⁹ (polluter pays principle), legal entities using combustion plants and electricity plants of more than 1MW of nominal power shall pay monthly fee for en-

vironmental pollution, i.e. fee for air emissions, generation and landfilling of hazardous waste. In addition, fees shall be paid by legal entities importing ozone depleting substances. Total amount of fee for air emissions, generation and landfilling of hazardous waste and for import of ozone depleting substances in 2015 amounted to only 0.003% GDP¹⁰ and has been recording falling trend over the past three years.

The Law on the Environment has not included fees for discharge of water emissions and use of water regulated under the Law on Waters and Law on Water Management Financing. Fees for discharge of water emissions of pollutants amount to 0.006 € per m³, and this basic fee is multiplied by the coefficient reflecting the waste water quality (manner of discharge, pollutants). The highest value of this coefficient (30) applies to industrial waste waters, while urban waste waters are subject to coefficient of 2¹¹. However, this provision has not been for the time being applied efficiently, since the effective fee has been calculated in a formula which takes into account composition of pollution in waste water and treatment it undergoes before the discharge, taking into account that monitoring of waste waters at source is not applied, and waste water treatment capacities are in the initial phase of construction. The amount of fees for the protection of waters against pollution in 2014 was 0.008% of GDP (276 thousand €).

8 Environmentally-adjusted net domestic product is quite commonly referred to in literature as "Green GDP", and calculation thereof – modelling of green economy, which includes costs for resource overexploitation, as well as insufficient investments into revitalisation thereof (Joseph Stiglitz, Amartya Sen and Jean-Paul Fitoussi, "Report by the Commission on the Measurement of Economic Performance and Social Progress", 2008; www.stiglitz-sen-fitoussi.fr)

9 (Official Gazette of Montenegro, no. 26/97, 09/00, 52/00, and Official Gazette of Montenegro, no. 33/08, 05/09, 64/09, 40/11, 49/11)

10 In the period 2013–2015 these fees amounted to 343.5 thousand € (0.01%), in 2014 143.4 thousand € (0.004%) and only 98 thousand € in 2015 (0.003% GDP).

11 Decision on the remuneration, method of calculation of water fees and criteria and methods for determination of water pollution degree (Official Gazette of Montenegro, no. 29/09)

There is no data about share of funds collected on this basis which is specifically invested into water protection, including regular monitoring of waters and application of protection measures, nor is the existing pollution being treated.

Use of natural resources is also subject to taxation based on polluter pays principle. Pursuant to the Law on the Annual Accounts on the State Budget for 2014, fees for exploitation of resources of general interest (fees for waters, excavated water course materials, protection of waters against pollution and fees for use of geological research data) and fees for use of natural resources (forests, mineral materials, construction and management of marinas and concessionary fees paid by private forest owners) amounted to 2.18 mil € in the state budget (0.21% of total budget revenues or 0.08% GDP). Taking into account that these fees go into the state budget, their earmarked allocation, even when prescribed by law, cannot be adequately monitored. Proportionally, municipalities where certain natural resource is located, received allocations of approximately 6.6 mil € of concessionary revenues, so total revenue from concessions in 2014 amounted to approximately 9.42 mil € (0.26% GDP). Due to the mentioned problems related to lack of transparency and inability to ensure earmarked spending of these funds in the budget of Montenegro, similar constraints appear at local level, since local self-governments neither have the option to monitor the amounts stipulated by concessionary contracts on use of natural resources, nor do they have sufficient capacities to control the concessionaires.

Integration of values of services provided by ecosystems into the economic account leads to a different image of the necessity for con-

servation of habitats and species (and natural capital in general), thus creating a basis for the development of resource-efficient economy. Continuing the current practice of insufficient investments into protected areas of nature instead of investing into natural capital would reduce economic benefits by more than 1.5 billion € in the course of coming 25 years.¹² Yet, such estimated options still do not get adequate application in practice, since investments into the protection and management of protected areas are still considerably lower than needed, and that biodiversity in general is exposed to strong pressures and degradation¹³. In fact, when it comes to use of protected natural

12 ISSP, The Economic Value of Protected Areas in Montenegro, ISSP, 2011 demonstrated that biodiversity and ecosystems create significant economic values reflected in several sectors and businesses (services provided by national parks in the areas of tourism, fishery, recreation and water sports and other economic activities, as well as services related to the provision of drinking water, protection of watersheds and protection against floods). The assessed value of these activities amounted to 68 mil € in 2010. At the same time, expenses for protected areas financing were 2 mil €, so the Study concluded that such level of funds was insufficient for adequate management and that continuation of such practice could generate significant losses for Montenegrin economy and population in long run. If, on the other hand, the option of “investing into natural capital” is chosen instead of “continuation of current practice” of insufficient investing into protected areas, it was estimated that permanent and growing added value would be ensured for the economy and population, amounting to total benefits of more than 1.5 billion Euros in the course of the coming 25 years.

13 The National Council for Sustainable Development, “Analysis of Achievements and Challenges of the Ecological State: 20 years of the Ecological State of Montenegro”, August 2011

resources, the National Parks of Montenegro collected 2.2 million € of revenues in 2015, out of which 42% were generated from admission fees. All revenues collected by national parks are allocated for their financing, but ecosystem services, including those provided by national parks, are not valorized even close to their potentials. The level of revenues is insufficient for adequate national parks management, and absence of greater investments reduces the estimated positive effects on overall economic growth and development in medium and long term.

Fossil fuels excises make an important share of budget revenues and stand for approximately 2.79% GDP in 2014, and 2.94% in 2015. However, excises for petrol and diesel engine fuel are used for the construction of roads, but they should be used for remediation of negative environmental effects created by combustion of fossil fuels¹⁴.

Public procurements in Montenegro amounted to 10.38% of GDP in 2015¹⁵. Although the Law on Public Procurements stipulates possibilities to apply criteria related to environmental protection and energy efficiency ("green procurements"), this option is insufficiently used in practice. The UN Agenda for sustainable development by 2030 requires application of sustainable practices in procurement procedures (SDG 12.7).

There is no subsidy system in place for cleaner technologies, alternative fuels and means of transport, use of renewable energy sources and sustainable waste disposal.

Budget expenditures for environmental protection have been varying over the past several years¹⁶. According to data for 2011-2012¹⁷, around 0.61% and 0.43% of total funds stipulated by the budget of Montenegro were allocated respectively. Expenditures at local level were significantly lower, even in some developed municipalities¹⁸. In 2013, expenditures from the state budget for environmental protection amounted to only 0.3% of total funds, i.e. 0.16% GDP, the same as in 2014 (if we calculate only three expenditure budget lines)¹⁹. If the national parks' revenues are added thereto, expenditures for environmental protection amounted to 7.69 mil € in 2014 (0.41% of the budget, or 0.22% of Montenegro GDP). Average

¹⁶ Budget expenditures include the programme "Environment and Communal Development" of the Ministry of Sustainable Development and Tourism, capital budget – environmental projects and budget of the Environmental Protection Agency. In addition to the aforementioned, the state provides co-financing for projects funded by foreign loans and grants Third Environmental Performance Review for Montenegro, UNECE, 2015, p. 63);

¹⁷ The highest share was recorded in 2009 / 0.7% of the national budget of Montenegro.

¹⁸ For example, only 0.88% of local budget in Budva, 0.65% in Herceg Novi and 0.75% in Ulcinj for all activities pertaining to environmental rehabilitation and protection, i.e. remediation of industrial pollution, municipal waste management, preventive measures and cleaning of marine pollution. Out of 13 polluters who had replied out of 21 interviewed, only three polluters had information about expenditures for environment in form of fees, and about investments in environmental projects (Baseline analysis "Environmental pollution", the National Strategy for Integrated Coastal Zone Management of Montenegro, 2014)

¹⁹ The Law on the Annual Accounts on the State Budget of Montenegro for 2014.

¹⁴ UNECE, Third Environmental Performance Review for Montenegro, 2015

¹⁵ Public procurements participated with 9.46% in GDP in 2014, Ministry of Finance, May 2016;

expenditures for environmental protection in the EU member states were 1.7% already in 2013²⁰.

When it comes to cost estimate for the governance for sustainable development, comparison was made with the estimate of administrative costs in the document "National Environmental Approximation Strategy" ²¹. Administrative costs (which includes gross salaries, overheads and training for additional administration) stated in that document amounted to 19.2 mil € for the period 2016–2020.

Starting from the above mentioned data and estimates, with regard to administrative costs for implementation of the NSSD and part of programme activities for sustainable use of natural resources, it was estimated that funds needed for the mentioned activities should amount to 1–1.5% of total budget funds by 2020, and 1.5–2% of total budget funds by 2030, which should be as such allocated in the budget of Montenegro.

Energy prices increased considerably in the period 2000–2012, and apparently influenced reduction of energy intensity, although it is not possible to precisely detach the influence of this trend from the other factors which had led thereto. User services – for water supply, transport and treatment of waste waters (in cases when such treatment is ensured), waste collection and disposal – also grew, but still had not reached

the level which would stimulate rational use of water and ensure necessary funds for required infrastructure financing. Increased prices for energy and utility services had also increased household expenditures, so further application of these instruments with the aim to achieve resource efficiency goals requires development of mechanisms for mitigation of effects on vulnerable population categories²².

Although the Law on the Environment from 2008 stipulated a sustainable system for environmental financing, including the establishment of the Environmental Fund – **the Eco-Fund**, no steps forward have been made so far. New draft Law on the Environment, which is in the preparation for the adoption, this area has been additionally regulated in order to strengthen environmental financing.

Recognizing the necessity to improve the environmental financing, the Assembly of Montenegro²³ has adopted the **Resolution on the Environment** (Official Gazette of Montenegro, no. 01/15) which, inter alia, calls upon the rational use of natural resources and protection of natural ecosystems with balanced economic and social development, and indicates that successfully established management and control system and integration of environmental protection measures through economic and legal instruments form the basis for conservation

20 General Government Expenditure in the EU, EUROSTAT, News Release, 122/2015 – 7 July 2015; (<http://ec.europa.eu/eurostat/documents/2995521/6899478/2-07072015-AP-EN.pdf/797f4af9-c37f-4631-8211-5dd0b32fcb31>)

21 Draft National Environmental Approximation Strategy, MORT, April 2016

22 UNDP, "National Human Development Report 2014, Towards a resource-efficient economy", The United Nations Development Programme (UNDP), Country Office Montenegro, Podgorica, 2014.

23 25th convening of the 7th meeting of the 2nd regular (autumn) session in 2014, on 27 December 2014

and healthy environment. The Resolution obliges the Government of Montenegro to increase budget expenditures for the environment to a level higher than the European Union expenditures for those purposes, and to establish the Eco-Fund²⁴. In that context, functioning of the Eco-Fund, in addition to resolving the environmental issues and ensuring of healthy environment, will contribute to sustainable use of resources through integration of sustainability requirements into economic and other policies, which is a pre-requisite for the **shift to green economy**. Strong political commitment to economy greening, removal of barriers and abandoning the unsustainable production and consumption patterns are also essential.

5.3.1. Key problems of the system for natural capital valorization and environmental finance

Implementation of the polluter pays principle is not consistent and efficient to the extent it should be, and getting the prices right, important from the aspect of resource efficiency, is not adequately integrated into Montenegrin laws and policies. The way in which application of economic instruments is defined, primarily of the pollution fee, has not generated tangible results taking into account that they had not been consistently applied and that they had not generated necessary stimulation for change of

behaviour and shift to more efficient production patterns which generate lower pollution levels. Similar situation is in the area of users' fees, concession and so on, which have not been (still) sufficiently stimulative to ensure efficient use of natural resources, such as waters, water course materials and forests. Environmental pollution fees, as well as those for use of natural resources are relatively low, and collection rate is at an excessively unsatisfactory level. In addition, inconsistent application of economic instruments based on polluter pays principle still limits the prospects for efficient application of sustainable production and consumption patterns which would reduce environmental pollution. The spectre of bases for implementation of taxes and fees, with specific accent on taxation of environment and use of natural resources, is significantly below the possibilities provided by current national legislation, and is considerably far from positive practice in the EU member states. The fiscal system has not stipulated fees for the use of a number of pollutants and products having negative environmental impacts, while fees have been prescribed for use of ozone depleting substances and for special waste management, but the obligation of payment thereof will become effective on the accession of Montenegro to the European Union (exceptionally, the obligation of calculation and remuneration of a special fee for packaging not designed for packaging of goods will become effective as of the day of entrance of the regulation into force²⁵).

²⁴ According to EUROSTAT data, in most EU member states, public sector expenditures for the environment in 2013 ranged between 0.31 % and 1.06 % GDP. Expenditures are perceptibly lower in Slovakia (0.28 %) and Spain (0.22 %, 2012) which are below average, while top position is occupied by the Netherlands (1.44 %, 2011 data) and Malta (1.38 %, 2012 data). Average expenditures are somewhat lower than 0.75% GDP.

²⁵ Regulation on closer criteria, amount and method of payment of a special waste management fee (Official Gazette of Montenegro, no. 39/12 dated 23.07.2012.) prescribes closer criteria, the amount and method for payment of special waste management fee.

Sustainability of environmental financing system is additionally jeopardized by non-existence of the environmental protection fund – eco-fund, which would ensure an integrated and systemic approach to resolving the problem of environmental pollution and stable and sustainable system for financing of numerous needs. Instead, non-integrated collection and non-earmarked allocations of ineffective fees collected on various basis is still in place. Inconsistency of regulations and provisions introducing the fees for different specific purposes is particularly worrying, since this contributes to further diversification and fragmentation of already limited funds. With regard to that, unpurposed allocations of funds collected based on the existing economic instruments – taxes and environmental fees, concessions and fees for other uses of natural resources – are still obvious. At the same time, it is required from the EU members states to rationalize inefficient fees for fossil fuels which stimulate extravagant consumption, including restructuring of taxation and phasing out environmentally unfriendly subsidies, thus minimizing possible adverse environmental impacts²⁶.

The system for valorization of natural capital and ecosystem services is still missing. The awareness about their existence and importance is at quite low level, so formal mechanisms for adequate valorization thereof are also still missing. Although direct use of natural resources enables earnings (e.g. through forestry, hunting and fishery, etc.), possibilities for market and business devel-

opment based on sustainable use and protection of ecosystems and wider spectre of services they provide, are very small.

There is also an expressed discrepancy between the prescribed/collected fees and costs for the prevention and elimination of consequences caused by negative environmental impacts on one hand, and stimulating the rational use of natural resources on the other. The funds collected from fees are insufficient for remediation of devastation and damages in the environment. For example, 88,000 € collected in total in 2012 from fees for exploitation of sand and gravels from river courses could not cover damages caused by one unconscientious concessionaire on one water course in Montenegro throughout one year, taking into account land devastation, water course pollution, disturbance of habitats due to water turbidity and change in hydrological regime. Environmentally unfriendly subsidies are particularly worrying. An exemplar for that is the Aluminium Plant Podgorica, which since its commissioning has been directly or indirectly subsidized – through electricity prices below market value or non-collection of costs for environmental pollution and degradation. The reasons for subsidizing included preservation of jobs, very important role of alumina industry in the national economy system and in terms of international trade.

Instruments for sustainable and stable environmental financing also provide for numerous options in terms of overcoming the barriers on the way to green the national economy, especially in terms of lack of technical and financial capacities for greening it.

On the other hand, several-decade inadequate maintenance and limited capital investments have led to a considerable fall

²⁶ An OECD study concludes that removal of fossil fuels subsidies could reduce GHG emissions by 10% by 2050 (OECD, Mitigation potential of removing fossil fuel subsidies – A general equilibrium assessment, 2011, cited in SEC(2011) 1067 final).

in environmental infrastructure quality in Montenegro. Taking into account the expressed needs for investing into ever growing demands for the promotion of environmental infrastructure quality (which is closely related to the EU accession of Montenegro), it is necessary to base financial sources on a combination of economic instruments (including fees which can cover costs), on foreign investments, loans from commercial banks and financing from public funds. The outbreak of financial crisis additionally and significantly reduced public revenues and expenditures, thus affecting the reduction of available funds for infrastructural projects in the area of environmental protection.

There is an urgent need to improve mid-term financing through planning based on transparent criteria for the selection of beneficiaries of scarce available finances.

In the existing allocations for the environment there are no stimulating measures for introduction of green infrastructure applied on natural or semi-natural areas (green or blue i.e. aquatic ones) aimed at conservation of environmental quality and ecosystem health. Stimulating measures for sustainable mobility and incentives for projects establishing an integrated, multi-modal sustainable transport system are still missing.

The system of fees for services provided by public utility companies, such as water supply, waste water treatment and collection and disposal of municipal waste is in Montenegro characterized by the fact that physical entities and households pay way lower fees than companies and other legal entities for similar services provided by public utility companies²⁷. Such system implies the ex-

istence of multiple subsidies for households, where households with higher income which mainly generate more waste and use more water than those with lower income benefit the most, since they have the same or equivalent financial liabilities. The fees are not sufficient to ensure inflow of funds which would enable functioning of public utility companies, but they mainly cover operational costs and basic maintenance. This problem is specifically emphasised through low level of collection from households²⁸,

of water supply and sewerage services for 2014: a) coastal municipalities and Cetinje: the highest water and sewerage price in 2014 was paid by residents of Budva – 2.09 €/m³, for physical entities, and 4.2 €/m³ for legal entities. The lowest water and sewerage price was paid by residents of Cetinje, and it amounted to 0.78 €/m³, while lowest water and sewerage price for legal entities was paid in Herceg Novi, amounting to 2.16 €/m³. b) Central and northern region: the highest water and sewerage price was paid by residents of Danilovgrad – 1.07 €/m³ for physical entities and legal entities in Mojkovac – 2.0 €/m³. The lowest price for water supply and sewerage is paid in the Municipality of Andrijevica, amounting to 0.18 €/m³ from physical and 0.57 €/m³ for legal entities.

²⁸ The average collection rate in 2013 for water supply and urban waste water treatment for physical entities was 71%, and 84% for legal entities. For 2014, there is integrated data available, stating the average collection rate of 79%. Low collection rate is recorded by utility companies. Out of 53 utility companies established by municipalities, 21 recorded business losses in 2014. Inability to maintain current liquidity is also expressed due to inadequate service prices and insufficient collection rate for the provided and invoiced utility services, since collection rate was 78.5%.(Source: Annual report on status of water supply, waste and waste water management, implementation of priority activities in utility sector, with the proposal of priority projects for the construction of utility infrastructure and proposal of measures for 2015 and 2016); Low collection

²⁷ For example, according to data on prices

due to which public utility companies almost entirely rely on state funds and municipal budgets for financing necessary investments for rehabilitation, modernization and expansion of infrastructure in the area of water supply and municipal waste management. It is expected that municipalities have interest in their public utility companies for determination of cost-effective fees and for the financial sustainability of utility companies owned by them. At the same time, increase in energy and utility services prices also increases household expenditures, so further implementation of these instruments aimed at the achievement of resource efficiency requires development of mechanisms for mitigation of effects on vulnerable population categories.

The efficiency of utility companies' operation is additionally burdened by excessive administration, without visible effects which would justify such organizational structure. Environmental inspectorate, which for example has 7 (seven) inspectors in total, conducted 734 enforcement controls in 2013 in the area of the Law on Waste Management, while communal inspectorate with 75 employed inspectors conducted 1,839 enforcement controls in total. One environmental inspector conducted one control in two days on average, while communal inspector conducted one control in nine days.

Such situation results in chronicle lack of funds for remediation of damages caused in the environment in long run, includ-

ing remediation of hot spots, protection of valuable nature and ecosystem parts, and preservation of human health. Irresponsible corporate behaviour, who do not adequately sanctioned for environmental pollution, causes further endangerment of environment and unsustainable environmental management.

rate is recorded by utility companies. Out of 53 utility companies established by municipalities, 21 recoded business losses in 2014 (inadequate service prices and insufficient collection rate for the provided utility service, since collection rate was 78.5%).

5.4. Possibilities and obligations in the implementation of Addis Ababa Action Agenda

The enhanced global partnership for sustainable development, led by governments, will be a vehicle for strengthening international cooperation for implementation of the UN agenda for sustainable development by 2030. Multi-stakeholder partnerships and the resources, knowledge and ingenuity of the private sector, civil society, the scientific community, academia, philanthropy and foundations, parliaments, local authorities, volunteers and other stakeholders. Global partnership is important to mobilize and share knowledge, expertise, technology and financial resources in fair way, complementing the efforts of governments, and support the achievement of the sustainable development goals, in particular in developing countries. Implementation of the UN Agenda for sustainable development by 2030 requires equally ambitious and comprehensive approach focusing on funds for the implementation of policies in economic, environmental and social development pillars, including efficient, accountable and inclusive institutions, clear policies and good governance at all levels²⁹. Global partnership should contribute to the achievement of the so-called “win-win” cooperation, for all countries in the world to benefit from - to “beat” underdevelopment, and to ensure all countries to freely exercise full and permanent sovereignty over all its

wealth, cumulative natural resources for the benefit of present, but also of future generations³⁰.

The funds for environmental financing (state budget, local self-government budgets, environmental fees, i.e. the funds which will be available within the eco-fund, donations, loans, environmental investments, international development partnership in the area of environmental protection, the EU pre-accession assistance, and the EU structural funds upon the achievement of full EU membership) should make just a part of **financing for sustainable development**. It is necessary to ensure stable financing from other national and international sources so as to provide sustainable national resources management (human, social, natural and economic resources) in the implementation and achievement of sustainable development goals.

5.4.1. National public sources

The national sources of financing are generated by the realized economic growth. In accordance with the UN Agenda for sustainable development by 2030, public policies should be implemented, while mobilization and efficient use of national resources should be ensured through application of the principle of national ownership over the sustainable development governance and financing processes. The enhanced social, environmental and economic policies, including counter-cyclic fiscal policy, good governance at all levels and developed human-centred institutions are all necessary for the achievement of the sustainable development goals.

²⁹ UN, Addis Ababa Action Agenda, Clause 11 (27 July 2015);

³⁰ Clause 18 of the United Nations Agenda for sustainable development by 2030 (25 September 2015);

The achievement of sustainable development goals by 2030 will require additional domestic public sources, which would be supplemented by adequate international support. This primarily means strengthening instruments of tax policy and tax administration, so as to collect additional tax revenues at the state and local levels, taking into account principles of fairness, transparency, efficiency and effectiveness of the tax system.

Pursuant to the UN Agenda for sustainable development by 2030, the countries are encouraged to:

- set goals and timelines for strengthening budget revenues (taxes and fees) to ensure financing for sustainable development in their national sustainable development strategies. Therefore, key activities will be based on: institutional capacity building in this area, broadening tax basis and making continual efforts to integrate informal economy into legal economic flows³¹;
- double efforts in combating illicit financial flows by 2030 with the ambitious goal to minimize them (combat against tax evasion and efficient anti-corruption policy)³²;
- pay special attention to signing and implementation of the treaties on the avoidance of double taxation, with the inclusion of necessary clauses on the prevention of tax abuse in international financial transactions, especially in arrangements made between the govern-

ments and multinational corporations which become tax obligors in the country where economic activity occurs and added value is created (C. 23);

- for underdeveloped countries, in their combat against illicit economic flows, ensure also technical support from international organizations - United Nations, International Monetary Fund and the World Bank, so as to track and trace trends of illicit financial transactions; specialized international organizations analyze the risk of money laundering and support the application of FATF³³ standards in combating against money laundering and terrorism financing (C. 24); it is necessary to foster international cooperation and fulfilment of taken obligations in that respect;
- monitor the implementation of the United Nations Convention against Corruption (UNCAC) as an efficient instrument against corruption, as well as of other convention in this area, which includes final court decisions for corrupt activities and recovery and return of stolen assets to their country of origin, (C. 25); efficient anti-corruption practice pertains to further developing of transparency and accountability of both financial institutions and the corporate sector, as well as in public administrations, which is compatible with SDG 17;
- introduce tax reliefs for the investments into processing capacities using domestic natural resources as raw materials, so as to increase the level of processing thereof, i.e. to develop export products obtained in several processing

³¹ Clause 22 of the Addis Ababa Action Agenda, compatible with SDG 17.1 ;

³² Clause 23 of the Addis Ababa Action Agenda, compatible with SDG 16.5 and 16.6;

³³ Financial Action Task Force;

phases (e.g. wood processing); in addition, it is necessary to introduce good practice and strengthen capacities for fair and transparent contracting of concession arrangements, revenue control in that field, with adequate monitoring of contracts implementation (C. 26);

- intensify international tax cooperation in the area of tax policy and automatic data exchange from tax databases, especially with regard to big corporation; it is also necessary to strengthen regional tax administration networks, as well as cooperation between supreme audit institutions (C. 27);

- establish a transparent framework for public procurements and promote participation of Montenegro in international initiatives for further strengthening of transparency in work, accountability of state institutions and further improvement of public services quality (e.g. Open Government Partnership) (C. 30);

- apply adequate pricing and tax policies to products which endanger human health, such as tobacco products (revenues collected from these products should be recognized as additional tax revenue contributing to achievement of sustainable development goals) (C. 32);

- involve national and regional development banks into financing for sustainable development more intensively, particularly in credit market segments in which commercial banks are not fully engaged, especially in sound lending schemes for projects addressing sustainable infrastructure, energy, agriculture, industrialization, science, technology and innovation, as well as financing of small and medium-sized enterprises (C. 33);

- ensure additional revenues in local self-government units' budgets to finance sustainable development in local communities, from technical support to development projects. This requires in particular:

- additional mobilization of local revenues to finance sustainable development according to the model of sustainable financing of local communities, i.e. inclusion of debt management of local self-government units into the national public debt management system;

- international support to sustainable development, which must be more focused on local communities for local infrastructural projects, conservation of environment and inclusive growth;

- in addition to donations, international support which includes loans from international financial institutions and development banks, along with risk mitigation mechanisms;

- strengthen coherent system for integrated spatial planning and management so as to achieve sustainable level of urbanization and strengthen economic, social and environmental connections between urban and rural areas;

- include local communities, even when they are not significant partners in financing of certain projects such as those in the area of water supply or waste management, into the decisions affecting them, especially those related to environmental impacts of such projects;

- stimulate local self-government units by 2020 to adopt and implement integrated policies and plans to

strengthen inclusion, resource efficiency mitigation of adverse climate change effects and adaptation to them, as well as resilience to natural disasters (integrated risk management and adaptation to external shocks) (C. 34).

- Introduce innovative financial mechanisms for sustainable development financing: utilization of funds collected from lottery, special fees, introduction of taxes on financial transactions, voluntary contributions and so on, with a clear intention to spend these funds for financing sustainable development projects, actions in the area of climate change mitigation and adaptation, with the general aim to contribute to overall public welfare.

5.4.2. Domestic and international private business and finances

Business activities in the private sector, investments and innovations are the main source of productivity, inclusive economic growth and creation of jobs. Private sector is a partner in development process, investor into areas of key importance for the sustainable development and is the main vehicle of change towards sustainable production and consumption models. International private flows of capital, especially foreign direct investments, together with stable international financial system, will supplement domestic development efforts. Yet, investment gap in key sectors of importance for the sustainable development is still present. In order to disperse foreign direct investments into several sectors of key importance for the sustainable development, it is necessary to ensure further strengthening of regulatory framework and introduce **incentives**, so as to approximate private sector goals to the state development goals, which implies

adaptation to sustainable investment practices and strengthening investment quality focused on long-term investments. In order to stimulate investments, it is necessary to build a transparent, stable and predictable investment environment, with full application of contractual provisions and respect of ownership rights, integrated in clear macro-economic policies and adequate institutions. It is also necessary to further develop good climate for inclusive and sustainable investments from private sector, with transparent and stable rules and standards, and fair competition, all with the aim to foster the achievement of sustainable development goals in the country.

The Government policy in the area of investment stimulation (especially of foreign direct investments) can significantly encourage achievement of sustainable development goals. Stimulating foreign direct investments implies strengthening of the so-called positive overflowing effects from a certain investment, such as technology transfer and know-how practice, inclusion of domestic producers and entrepreneurs into the supply chains. It is of specific importance to encourage preparation of projects which promote employment growth, sustainable consumption forms, structural transformation and sustainable industrialization, production diversification and agricultural development. International development partners (the World Bank in particular) can be involved through technical support and trainings for strengthening of economic cooperation of the host country and foreign investors, as well as by providing collaterals and necessary guarantees for the investments.

When it comes to attraction of investments in infrastructural projects, it is necessary to ensure continual updating of the **nation-**

al investment plan³⁴ which includes a solid basis of prepared investment projects in order to stimulate long-term investments and reduce investment risks due to uncertainties and incompleteness of a specific development project. Investments in infrastructure requires both public and private sources of financing, both through development banks and other development financial institutions, and through means and mechanisms such as **public-private partnership**, which as a mixed financial source combines concession public finances and non-concession private funds, associated financial sources, expertise from both sectors, project financing and risk reduction instruments.

Furthermore, it is necessary to stimulate further development of private sector which takes into account **international standards and good practice on the labour market**, i.e. rights related to occupational health and safety, environmental and health standards in accordance with ratified internation-

al conventions, as well as gender equality, rights of persons with special needs and rights of the child (C. 37). It is also necessary to ensure that women enjoy the same rights and have the same opportunities not only in political, but also in economic life of the country, access to economic resources, ownership rights, rights on the employment, equal salary for the same work, along with the protection of all forms of discrimination at the labour market (C. 40).

Further strengthening of **regulations in the area** of financial mediation should be ensured, starting from micro-financing to international banking, so as to ensure access to finances for all (financial inclusion), especially access to loans for small and medium-sized enterprises. It is necessary to encourage commercial banks to provide their services to all, and support micro-financial institutions, development and agricultural banks, introducing innovative financial mechanisms, such as mobile banking, payment platforms and digitalized payment (C. 38). Strengthening of capital market should be further supported (C. 44).

It is encouraging to see a growing number of companies developing a **business behaviour model**, paying attention to environmental and social effects of their activities, and observing not only financial, but also non-financial effects in the assessment of their investments (encouraging as well the other companies to do the same and respecting the principles of sustainable business and investments).

Affirmation of sustainable development goals requires also the presence of **philanthropy** which provides significant financial and non-financial support on the way to achieve certain goals. Flexibility, innova-

34 The estimates of infrastructural investments are provided in the document Montenegro Development Directions for the period 2015-2018 along with estimates of necessary investments from public sources as complementary ones for development projects. In addition, the activities of the National Investment Committee, provided with professional support by the Secretariat for development projects, included a listing of priority investments (the Agenda of infrastructural connecting in energy and transport sectors) which incorporates bankable projects to be partially funded from IPA II regional funds – WBIF (the Western Balkans Investment Fund). The first projects of the Connectivity Agenda were approved in 2015 (10 priority projects were approved of 616 mil €, out of which two projects will be implemented in Montenegro – for the energy corridor and railway reconstruction of 167 mil €, 45 mil € of which is grant, and the remaining amount includes loans from KfW and EIB).

tion capacity, taking risk, and the ability to ensure additional funds through development partnerships are all characteristics of these organizations (C. 42). It is necessary to stimulate cooperation between philanthropic organizations, governments and other development partners, with increased transparency and accountability in their joint work.

5.4.3. International development cooperation

International public finances play an important role in complementing the country efforts to mobilize domestic public resources. Numerous developed countries have made commitments to achieve the level of 0.7% GNI (ODA³⁵/GNI indicator) for international development assistance programme, out of which 0.15% to 0.2% for least developed countries. On behalf of their member states, the European Union has also made a commitment to achieve the same level in the context of the UN Agenda for sustainable development by 2030 (C. 51). The UN specifically encourages most developed countries to direct 50% of their international development support to least developed countries. Support programmes in the development should be made public in order to increase their likelihood and predictability.

Respecting the obligations resulting from international conventions (including low-carbon climate resilient development), developed countries committed to jointly mobilize 100 billion USD by 2020 from a variety of sources to address the needs of developing countries (C. 60).

The resource mobilization process will be provided through the Green Climate Fund as an instrument for the support to developing countries parties to the United Nations Framework Convention on Climate Change (UNFCCC). The approval of projects to be financed from this fund started already in 2015, respectively for projects addressing climate change mitigation and resilience (C. 61). An important role is also attributed to the Strategic Plan for Biodiversity which pertains to the current decade, taking into account the importance for conservation of biodiversity and sustainable use of its components in poverty reduction and strengthening of green economy. ODA funds should be used to strengthen more intensively the programmes for sustainable land management, combat against desertification, but also against floods, as well as programmes for sustainable forest management and sustainable use of coastal zones, sea and ocean resources.

The support to the sustainable development of countries of the upper-middle income, a group of countries to which Montenegro belongs³⁶, should be provided by multilateral development banks, paying attention to keep favourable lending conditions for development projects in these countries available even when they achieve certain degree of economic development. This financing model should be used to support regional

³⁶ According to the World bank classification, Montenegro does not belong anymore to the category of countries which can get the so-called IDA credits for least developed countries, but is classified in the group of countries with "upper-middle income" with GNI/pc of 7,320 USD (Gross National Income per capita, Atlas method, 2014), i.e. into the IBRD group of countries with regard to lending.

³⁵ Official Development Assistance (ODA) with respect to the Gross National Income (GNI).

infrastructural projects as well.

The UN system, with sufficient resources and efficient management mechanism, is a strong instrument for additional mobilization of resources for sustainable development in countries involved in the programme “Delivering as one”.

Development partnerships should be additionally supported, so as to uphold defined development priorities of developing countries based on learned development lessons, available expertise and national consensus on development priorities. Development partnerships are efficient instruments for mobilization of human and financial resources, technologies and knowledge. In that context, the role of the Global Environment Facility (GEF) is of specific importance in mainstreaming environmental concerns into development efforts, and providing grants and soft credit lines for the support to environmental projects in developing countries (C. 76). Within the initiatives of the World Health Organisation, programmes of support to healthcare systems should be further developed (early warning, risk reduction and national and global health risk management).

5.4.4. International trade as an important driving force for the development

International trade is a vehicle for inclusive economic growth and poverty reduction, and should contribute to the promotion of sustainable development. Open, transparent, inclusive and non-discriminatory international trade based on clear rules within the World Trade Organisation (WTO), with harmonized liberalization, will bring new

development possibilities and stimulates long-term investments into production capacities. With appropriate incentive policy, infrastructure and qualified human resources, trade can also contribute to more productive employment and dignified life, empowerment of women, reduction of inequalities and achievement of sustainable development goals.

Trade Facilitation Agreement³⁷ should generate significant savings through simplification of customs procedures in international trade. The agreement has established mechanisms for effective cooperation between customs and other authorities involved in import, export and transit of goods, and it will enter into force once ratified by 2/3 of the WTO parties.

Negotiations on trade facilitation and **fair conditions for trade for all** will continue within the global trade network, i.e. within the World Trade Organisation (which includes the invitation for a conclusion of the entire package of the Doha Development Agenda promoting interests of developing countries). The negotiations will include **enhanced access to market for less developed ones** (especially to the market for agricultural products), trade rules balancing, and well targeted, financially sustainable technical support for strengthening of administrative capacities in the developing countries (“Aid for Trade”). A sensitive area of negotiations

³⁷ WTO, Trade Facilitation Agreement, TFA, WT/MIN(13)/36 - WT/L/911, the so-called White Package from December 2013, was the first agreement adopted upon the establishment of the World Trade Organisation, after 12 years of negotiations within the Doha Development Round. Montenegro ratified this agreement on 22 March 2016.

includes also elimination of all forms of incentives for export of agricultural products and measures with equivalent effect, which pertains to the area of fishery as well. In order to ensure that negotiations results have global effect, it is necessary to work on further expanding of membership in the World Trade Organisation, along with the application of simplified accession procedures pertaining to least developed countries.

In addition to the mentioned, the development prospective of the UN Agenda for sustainable development by 2030 has defined a goal to **double the share of export from developing countries** in global export (C. 82). Further development of international trade and growing competitiveness in less developed countries requires **strengthened access to financial sources** for the growth of economic activities in this area and finding **market-oriented incentives** so as to extend financing of international trade in accordance with the WTO rules (credit availability, guarantees, collaterals, factoring and innovative financial instruments, including those intended for micro, small and medium-sized enterprises in developing countries).

UNCTAD³⁸ is a contact point of the UN System for integrated approach to trade and development, as well as to related topics from the area of financing, technology, investment and financing for sustainable development. Its role in the UN Agenda for sustainable development by 2030 will be considerable, because it will regionally deal with the analysis of trade facilitation application and with the TFA implementa-

tion³⁹ and reduction of non-custom barriers to trade through the analysis of non-trade measures, with the focus on trade facilitation and increased export from the developing countries. The UNCTAD will implement these activities in the South-East European region, with a specific focus on export of agricultural products to regional market under fair trade conditions.

Within the international trade, a very important role for sustainable development is played by the **regional trade and interconnectivity**, which promote inclusive growth and sustainable development. The regional integration of Montenegro through CEFTA⁴⁰, bilateral trade arrangements and SAA⁴¹ with the EU contribute to removal of barriers in the regional trade and to faster economic reforms. At the same time, they enable companies, including micro, small and medium-size enterprises, to integrate into regional and global supply chains.

5.4.5. Public debt management and intergenerational equity

Use of loans from international market is an important financing mechanism for development projects funding, especially for capital investments, thus contributing to the achievement of sustainable development goals. Public debt management is therefore an important financing instrument for the development, and it enables public finances to play a counter-cyclic role in national economy trends, but stressing the need

39 Trade Facilitation Agreement

40 Central European Free Trade Association

41 The Stabilisation and Association Agreement

38 United Nations Conference of Trade and Development

for rational indebtedness, i.e. for respects of the so-called **intergenerational equity**. In fact, public debt allows for reprogramming of funds needed for public expenses from the beginning of a certain project to the moment of effected due debt servicing payments. From the aspect of sustainable development and intergenerational equity, the question is which circumstances should be taken into account in debt reprogramming (including tax collection). In fact, if no one represents future tax payers, then current tax payers have tendency to strongly support high level of the country indebtedness. Doing so, they transfer the load of debt servicing costs to future generations. Therefore, from the aspect of sustainable development, **public debt** is acceptable only under highly strict conditions, primarily depending on the intended use of such funds and their multiplication effects to the acceleration of development on sustainable basis. The main starting point in the policy of future indebtedness should be the revenue gained from the use of those funds, which should be higher than respective lending costs⁴².

The Public Debt Management Strategy⁴³ makes a part of the state fiscal strategy. It includes the analysis of the existing debt, estimate of trends in the forthcoming mid-term, cost and risk analysis accompanying the potential debts and guidelines for further indebtedness policy and debt management. The Law on Budget and Fiscal Accountabil-

ity (2014) has defined that planning and budget execution in the drafting of the annual laws on budget will be compliant with criteria according to which deficit will not exceed 3%, therefore, public debt will not exceed 60% of GDP. In addition, the Law has defined measures to be applied in case that the aforementioned criteria are exceeded:

- If public debt reaches the level of 60% GDP, draft law on amendments to the law on the state budget will be developed to ensure retention of public debt within the limits of up to 60% GDP;
- If public debt exceeds 60% GDP, propose to the Parliament to reduce multi-annual expenditures, reduce municipal expenditures, and propose measures for the reduction of public debt;
- If public debt exceeds 60% GDP due to implementation of capital projects which are subject to parliamentary decision, propose rehabilitation programme for the period of five years maximally.
- Adoption of the mentioned legal solution meant that the Government of Montenegro plans to introduce stronger control of deficit and public debt trends, and to define deadlines for rehabilitation of debt and deficit within the Maastricht Treaty, that is to maintain the debt within the limits of up to 60% GDP.

The entire **public debt** of Montenegro at the end of 2014 amounted to 1,942.91 mil €. Reduced by the Ministry of Finance down payment, it amounted to 1,893.4 mil € (54.8 % GDP) and with the local self-government units' debt of 128.8 mil €, the **public debt** amounted to the level of 59.9%. By the end of 2015, it was estimated that the estimated

⁴² Government of Hungary, National Framework Strategy on Sustainable Development 2012–2024: National concept on the transition towards sustainability, Hungary, March 2013, pp. 86–87

⁴³ Ministry of Finance, Public Debt Management Strategy of Montenegro 2015–2018, Government of Montenegro, June 2015

Table 5-2: Trends of state debt for the period 2015-2019 (projections of the MF, June 2016, u mil €)

	2015	2016	2017	2018	2019
GDP	3.595,0	3.762,0	4.008,0	4.192,8	4.351,0
Domestic debt	320,29	220,3	160,3	129,3	102,3
Foreign debt	1.956,36	2.264,6	2.726,9	3.081,9	3.166,9
State debt	2.276,65	2.524,9	2.926,2	3.250,6	3.308,2
State debt/GDP	63,33%	67,11%	73,01%	77,54%	76,04%
Local self-government debts	142,18	130	120	110	100
Public debt	2.418,83	2.654,90	3.046,60	3.360,60	3.408,60
Public debt/GDP	67,28%	70,56%	76,01%	80,17%	78,34%

state debt reached 63.33%, and public debt was 67.28% GDP of Montenegro⁴⁴.

Aggravation of fiscal indicators is conditioned by the growth of public debt emanating from the construction of highway, but also from the increased deficit caused by unplanned costs incurred due to the adoption of a set of laws without the analysis of fiscal impacts (e.g. supplement to the Law on Social and Child Protection⁴⁵ compliant to which mothers with three or more children are entitled to life monthly wages, as well as parents or custodians of children with special needs, resulting the deficit of the current budget for 2016 of approximately 40 mil €, which can lead to budget re-balance in the second semester of the year).

⁴⁴ Data about the state and public debts is provided from the Report on Public Debt of Montenegro as of 31 December 2015 and 23 June 2016, the Ministry of Finance. When public debt for 2015 is reduced by the Ministry of Finance down payments, including also 38.477 ounces of gold (57.25 mil €), net public debt will amount to 2,361.58 mil € (65.69% GDP).

⁴⁵ Official Gazette of Montenegro, no. 42/15.

Before introducing any new wages, it would be convenient to analyze other measures as well, such as different tax reliefs or taking a part of taxes and contributions by the state on already defined wages, which would significantly reduce pressure on the expenditure side of the state budget. The mentioned measures can be implemented as a part of measures listed in pronatality policy (sub-measure 1.1.1.1 in the Action Plan, strategic goal "Improvement of human resource status and strengthening social inclusion"). The practice to adopt laws by the Assembly of Montenegro without previously analyzing their fiscal impacts and expressed opinion of the Government with regard to such proposals, i.e. giving opinion to the ruling contents – should be completely suspended so as to give significant contribution to the sustainability of public finances.

The main challenge in debt management in the forthcoming period will be realization of the loan for the construction of priority section Smokovac – Matašev of the Bar – Boljare highway, in the amount of approximately 809 mil €, i.e. completion of the entire investment for the highway and placing thereof in the function of development of

Montenegro on sustainable basis. This investment of strategic importance conditions the growth of indebtedness in mid-term period.

When it comes to the **indebtedness policy**, from the outbreak of economic crisis, Montenegro has been mainly relying on the provision of funds from international fiscal institutions with regard to implementation of capital projects. The provided funds have been taken under relatively favourable lending conditions, i.e. they have longer repayment periods and lower interest rates. Since 2009 the Government of Montenegro, for the purpose of deficit coverage, has taken external loans from the commercial creditors, and it also emitted bonds on the international security market. In the period to come, the Government will continue to cooperate with international financial institutions in order to ensure soft funds for further financing of capital projects. The major part of the domestic debt pertains to the restitution (scope of change is very difficult to forecast), credits from commercial banks and issued state securities.

In order to ensure regular servicing of high repayment amounts, Montenegro will have to get into further debts to ensure sources to service its liabilities. Although over the past several years, there have been reduction in price for indebtedness on the international market, it is not easy to predict trends in the coming period⁴⁶. The amount of debt and related costs can be greatly influenced by certain factors which Montenegro cannot influence. In fact, due to different fluctuations on the market caused by further economic stagnation, international con-

flicts, exchange rate changes and changes of prices of different derivatives, there may be more intensive risk assessment by the banks and investors, which inevitably leads to increased interest rates.

These trends have led over the past several years to high degree of aversion among international investors to all markets in developing countries. In addition, the listed reasons can lead to limited access to financial means⁴⁷, which can result in difficulties in the provision of necessary funds.

With regard to the Law on the Budget and Fiscal Accountability, in order to achieve sustainability of the public debt, it is necessary to ensure more quality monitoring and reporting on the public debt, defining and establishing clear procedures related to debt management and indebtedness analysis, cash management and implementation of debt payment transactions. This is why adoption of a special programme for rehabilitation of public debt will be initiated. This will actually be a programme of measures on the expenditure and revenue sides of the budget, including a possibility to of-

47 In the first half of 2015, realized bond emission on international market amounted to 500 mil €, for the period of 5 years, with interest rate of 3.875%. This interest rate was the lowest price for lending costs Montenegro gained on the international market, which enabled reduction of lending cost in general. However, bond emission of 300 mil € from March 2016 was realized under interest rate of 5.75% and period of 5 years. Emissions from the past years (2015-2016) are not new debts, but refinancing of bonds issued earlier.

46 Eurobonds from 2011 were realised with interest rate of 7.25%.

Pursuant to the Law on the Budget, the Government can go into debt of up to 433 mil € in 2016 for debt servicing, plus additional 255 mil € for financing of the priority highway section.

fer or sell the concession for the highway, thereby transferring a part of financial burden to the concessionaires. These measures will contribute to consolidation of Montenegrin public finances, improving the credit rating and strengthening competitiveness at macro level.

At the same time, through good results in the area of fiscal consolidation which has been in implementation continually for several years now, as well as with anticipated economic and investment activity, i.e. stipulated growth of GDP, it is realistic to assume that there will not be a significant change in lending costs⁴⁸.

Finally, in order to prevent further growth of public debt and ensure its gradual decrease, upon the implementation of construction project on the priority highway section Smokovac – Mataševo, it is necessary to apply further measures for fiscal consolidation which would lead to stabilizing of public debt trend in addition to macroeconomic ones.

A very important question of public finances from the aspect of sustainable development includes also the issue of lifecycle financing, which is the main source of the current budget deficit. Financing the needs in the area of social protection, especially financing of liabilities of the Pension and Disability Insurance Fund and Health Insurance Fund⁴⁹, makes a strong pressure to

the budget, both due to inherited liabilities, and due to cross-sectoral intergenerational allocation. This means reallocation from the active labour population to children and senior citizens. This reallocation is needed due to the existence of discrepancy between the production and resource use phase, which do not match in real life. The discrepancy between the consumption and income generation is life cycle deficit. This has to be financed in every society through intergenerational reallocation of resources, using a diversified mechanism of instruments and policies, with social protection system as a core one. Inadequate and insufficient system for financing of the life cycle deficit can slow down dynamics of economic growth and development in mid-term period, at the same time contributing to fall in savings, labour market activities and birth rate⁵⁰.

5.4.6. Science, technology, innovations and capacity building

Knowledge and knowledge-based technological innovations are becoming the main source of economic development in modern societies. Resource-efficient economy is the premise for a dynamic economic growth of present and future generations. A new innovation phase should enable growth of economic resources without giving rise to adverse effects to natural resources, respecting the set natural and environmental limits (the so-called absolute distinction). New knowledge and innovations enable

⁴⁸ Debt servicing costs in 2016 were estimated at 2.2% GDP in the document Competitive Agenda by 2020, April 2016 (reform measure: increasing the public debt sustainability);

⁴⁹ The deficit in the Pension and Disability Insurance Fund was 126 mil € (Budget for 2016), and it amounted to 6 mil € in the Health Insur-

ance Fund (Competitiveness Agenda by 2020);

⁵⁰ Government of Hungary, National Framework Strategy on Sustainable Development 2012–2024: National concept on the transition towards sustainability, Hungary, March 2013, pp. 88–89;

lower consumption of material and energy in production processes. Taking into account that materials and energy are limited, our innovation capacities should be limitless: economic growth must be based on perpetual innovations and application of new knowledge and experience. Consequently, **investments into research and development** (in public and private sectors), even in smaller countries like Montenegro, are a premise for dynamic growth in the period to come.

5.5. Pre-accession assistance, the EU programmes and structural funds

In addition to being the greatest provider of international development assistance, the European Union also has a developed pre-accession assistance mechanism for countries which are in pre-accession procedure for the EU membership and for less developed member states.

The process of economic, social and territorial cohesion of the EU is realized through seven-year budget programming periods and defining of multi-annual financial framework, which is implemented through annual budgets. The revenue side of the EU budget includes direct contributions from the member states (up to 80% of total amount), revenues collected from custom and other duties (around 10%) and a part of VAT revenues (around 10%), which makes around 1% of the Union Gross National Income.

On the expenditure side, the Union budget has significantly more programme priorities implemented through joint European policies and approved development projects which should contribute to the convergence of new members states development level compared to the EU founding countries, i.e. developed western European economies.

The seven-year financial prospective EU 2014–2020 allocates 47% planned funds for **smart and inclusive growth** (competitiveness for growth and employment; economic, social and territorial cohesion), while **sustainable development**, i.e. natural resources are allocated with around 39%, focusing

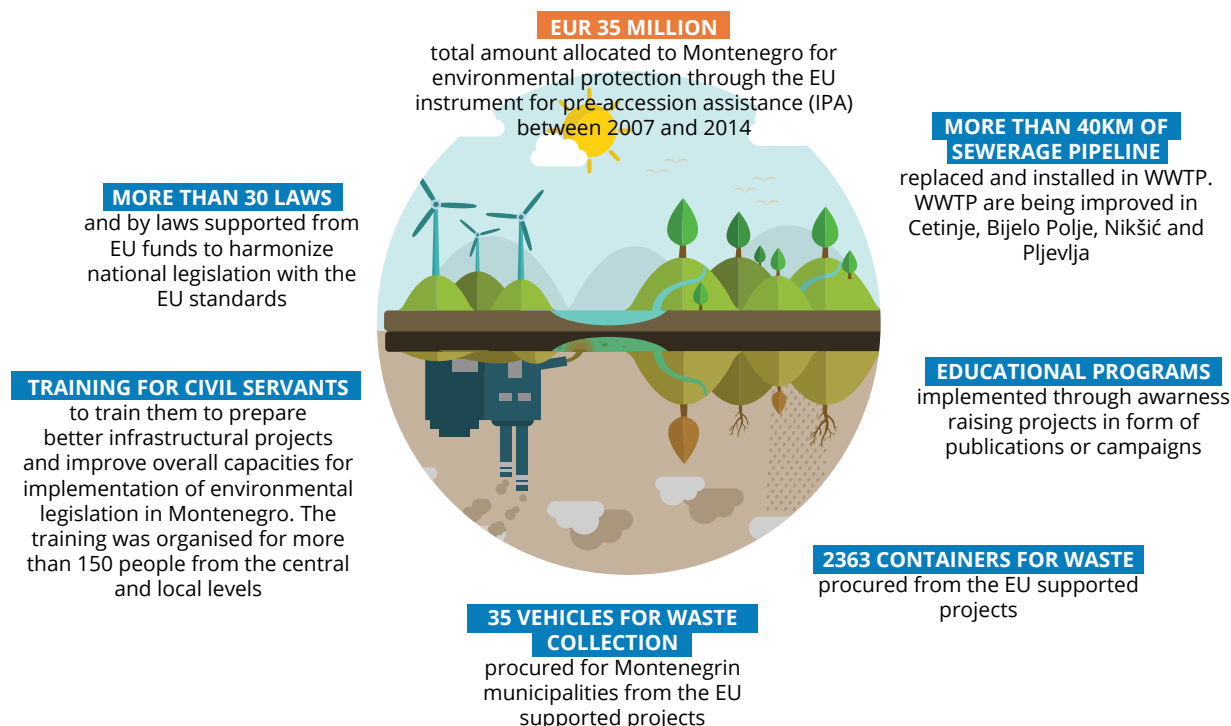
on agriculture, rural development, fishery and environmental and climate change programmes. As a part of budget line for smart and inclusive growth, development strategy **Europe 2020** is being implemented, while **Sustainable Development Strategy** is implemented both through the mentioned budget line, and through the sustainable development budget line, i.e. line for conservation of the EU natural resources, so we can conclude that almost 4/5 of the budget are spent on a wide range of measures which can be deemed measures for financing of the EU sustainable development.

In addition, member states contribute to self-standing financing for sustainable development, taking into account that majority of sectors referring to application of sustainable development measures belong to the so-called divided competences (environment, energy, transport, agriculture and so on). This means that a part if decision-making and application is implemented at the EU level, while the remaining part is implemented at the member state level.

Table 5-3: The EU multiannual financial framework 2014-2020

MFF 2014 – 2020 - in billion € , prices 2011	Total 2014-2020	%
1. SMART AND INCLUSIVE DEVELOPMENT	450,763	47%
1a. Competitiveness for the growth and employment (the Union Programmes...)	125,614,0	13%
1b. Cohesion for growth and employment (ERDF, ESF, KF...)	325,149	34%
2. SUSTAINABLE DEVELOPMENT: NATURAL RESOURCES	373,179	39%
CAP I pillar - direct payments	277,851	
CAP II pillar – rural development	84,936	
3. SECURITY AND CITIZENS	15,686	2%
4. GLOBAL EUROPE (was 49.4 BILLION € OR 5.7%)	58,704	6%
Of which IPA (was 11.4 mil €)	14,11	
5. ADMINISTRATION	61,629	6%
- institutional costs	49,798	5%
TAKEN OBLIGATIONS (1% GNI)	959,988	100%

Chart 5-2: Environmental projects in financial perspective for 2007-2013: IPA



In the mid-term perspective, Montenegro will become the EU member state and will become a net recipient of the EU budget funds, taking into account its economic performance (BDP/pc in purchasing power parity for 2014 was 41 compared to the EU average). In order to absorb finances from structural and investment (ERDF, ESF, KF, EAFRD, EMFF⁵¹) in proper way, the country

has to get prepared timely, in the pre-accession phase. At the same time, strengthening administrative capacities and implementing continual trainings are also a premise for efficient use of pre-accession funds in the mid-term period.

The efficiency of use of that strong incentive mechanism for the development, which becomes available with the full membership in the EU will depend on the quality of preparation and sustainability of the established and trained structures which will be involved in

51 The European regional Development Fund, European Social Fund, Cohesion Fund, European Agricultural Fund for Rural Development, and European Maritime and Fisheries Fund are the European structural and investment funds in

financial perspective 2014-2020.

programming, absorbing, implementation and reporting on spending of the EU funds. Until the moment of full EU membership, Montenegro can use the EU pre-accession assistance funds (national and multi-beneficiary IPA funds), and to participate in certain Union programmes which stimulate smart, inclusive and sustainable growth.

In the period 2007–2013, Montenegro had absorbed 235 mil € from the national IPA funds, significant part of which was allocated for environmental projects, infrastructure and economic growth. The goal of the EU environmental and climate policy is to promote sustainable development, low-carbon emission economy, and efficient natural resource management and environmental protection for future generations. Montenegro has identified national priority measures, particularly focusing on investment in the area of waste water management, water supply and waste management. In the previous financial perspective, the European Union supported priority measures in the area of environmental protection in Montenegro with a framework amount of 35 mil € through the following projects: more than 40 km sewerage pipes were replaced and installed for the waste water treatment plants (in the municipalities of Cetinje, Bijelo Polje, Nikšić, Pljevlja); 36 vehicles for waste collection and 2363 waste containers have been procured; more than 30 laws and by-laws were adopted with the aim to harmonize national legislation with the EU standards; training courses for more than 200 civil servants were delivered; a number of publications were published and numerous campaigns organized with the aim to raise public awareness about the importance of protection and education for environmental protection.

In the current financial perspective and in accordance with sector priorities, Montenegro can absorb even 324 mil € of the pre-accession assistance through national IPA programme, multi-beneficiary IPA mechanism, transboundary cooperation and participation in a range of the EU programmes.

Environmental protection and climate actions received allocations of 38 mil €. Institutional framework should be significantly improved, so as to enable a comprehensive harmonization of the national legislation with the EU Acquis in the area of environmental protection, at the same time cumulating the funds (budget, loans from EIB, EBRD, KfW, and IPA funds) with the aim to support environmental investments, primarily those addressing waste management and waste water treatment. Those investments are prerequisite for gradual transition towards a resource-efficient, circular economy. The second component of planned investments is made of investments into projects for adaptation to climate change⁵².

The Western Balkan Investment Fund (WBIF) from the multi-beneficiary IPA line earmarked for joint IPA countries' projects, provides additional support to the investments into environment, specifically focusing on the collection and treatment of waste waters, waste management in biggest agglomerations (heavily populated and industrial areas) and environmentally sensitive areas, as well as for energy efficiency projects. These investments, through the National Investment Committee (NIC),⁵³ are

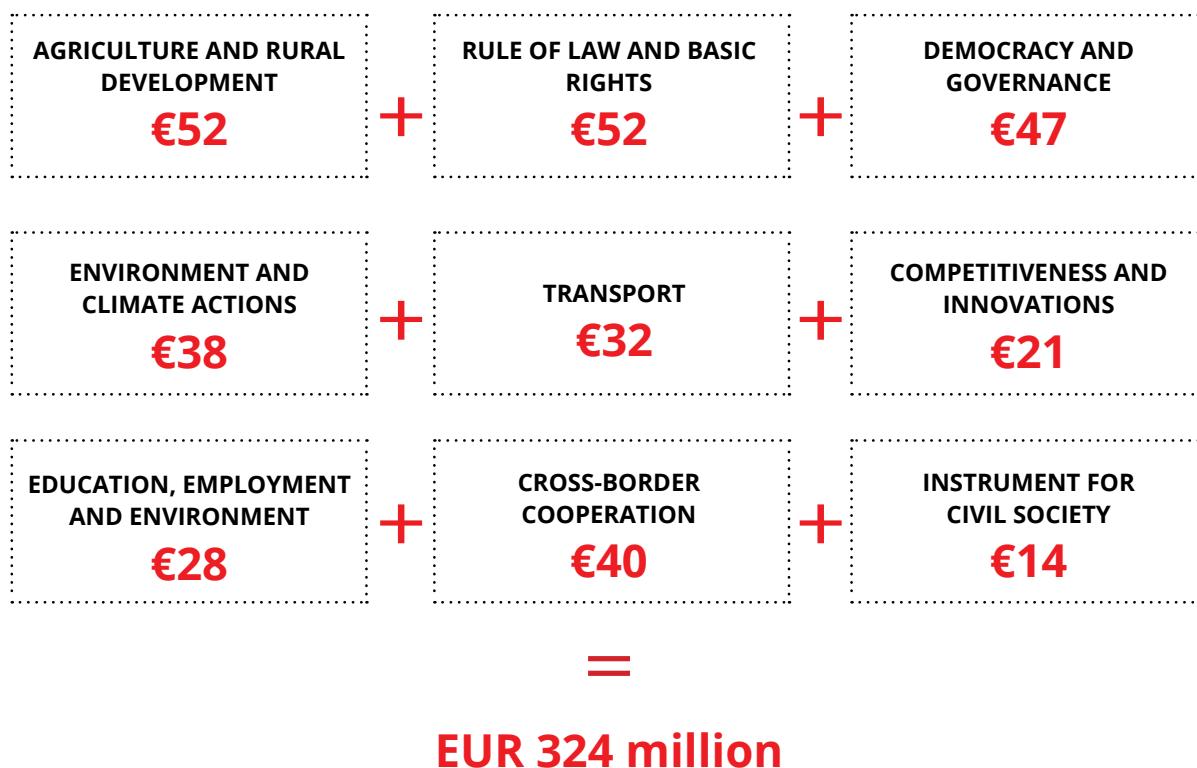
52 The European Commission, Indicative Strategic Paper for Montenegro 2014–2020, Brussels, June 2014;

53 Article 5 of the Decision on the establishment of the National Investment Committee

Chart 5-3: Financial prospective 2014-2020: IPA II

EU FINANCIAL SUPPORT TO MONTENEGRO

INDICATIVE AMOUNTS FOR THE PERIOD 2014-2020



2007 - 2013 a total of **EUR 235** for IPA and
1998 - 2006 **EUR 277 million** EU support through CARDS program

subject to defining priority national projects for IPA financing⁵⁴ in accordance with agreements reached within the so-called Berlin Process⁵⁵.

Montenegro also participates in the ECRAN network through regional approach to the environment and climate change, with the aim to harmonise regional aspects and national priorities in this sector. Participation of Montenegro is also open in the EU framework for cooperation in the area of emergencies prevention, preparedness and response⁵⁶, and the EU will support achievement of goals of Montenegro and other participating countries in the context of macro-regional strategies for the Adriatic-Ionian and the Danube regions, such as protection of marine and coastal ecosystems, as well as of trans-national land habitats and biodiversity⁵⁷.

(19.2.2015) prescribes that administrative-technical activities of the NIC are carried out by the Secretariat for development projects.

54 The first projects in 2015 from the WBIF, according to the Connectivity Agenda, are: "Interconnection of transmission systems of Montenegro-Serbia-Bosnia and Herzegovina by the means of 400kV power line" worth 127 mil € (20% grant, the remaining amount from the KfW loan) and "Signalisation and reconstruction of bridges on the railway line Bar-Vrbnica", worth 40 mil € (50% grant, the remaining amount loan from the EIB). A list of 64 priority development projects has been defined for this financing model. It is also planned to propose support in drafting of the Feasibility Study for the Adriatic-Ionian highway/fast road (Route 1 and Route 2);

55 German initiative for stronger regional support to countries in our region, for joint and priority development projects in the area of: energy, transport, environmental protection and social affairs.

56 The Union Civil Protection Mechanism;

57 The European Commission, Indicative

5.6. Strategic goals in financing for sustainable development

5.6.1. Sustainable environmental financing

With regard to the existing status and expressed problems, **establishing a system for sustainable environmental financing as a component of financing for sustainable development** is a strategic goal in the implementation of sustainable development policy in Montenegro, with the ambition to apply efficient and effective system thus enabling resolving of chronic environmental problems and ensuring stable and safe financing system in the mid-term period already by 2020.

Budget planning based on the delivery of results is one of the bases for successful functioning of environmental management system. With regard to that, the Ministry of Finance works on the enabling of the programme budget implementation. The programme budget elements were introduced in the previous period, and they include programme structure, mission, goals and programme descriptions, while in the period to come, in addition to the existing structure, efforts will be made to define indicators in order to harmonise goals related to spending units and budget planning. It is necessary to create an efficient system to measure the effects of budget programmes so as to increase the efficiency and transparency of public

Strategy Paper for Montenegro 2014-2020, Brussels, June 2014;

spending. Programme budgeting increases the capacities for mid-term policy planning and monitoring of their implementation, measuring of effects and delivery of institutional goals in accordance with the Government goals and approved budget funds. Predictable public finances and credible mid-term planning, along with measuring of the spending effects, will improve the country credit rating and increase its global competitiveness⁵⁸.

With respect to the NSSD goals, there is an expressed need to introduce a system for programme, purposeful planning of the annual budget for all budget beneficiaries (spending units), where funds needed for implementation of programme activities for sustainable development will be separately planned. Moreover, it is necessary to enable mutually consistent strategic planning of sector policy goals by organizational units and individuals operating within these units – budget beneficiaries on one hand, enabling on the other implementation of strategic goals through earmarked budget planning. It is also necessary to adjust allocations from local self-government budgets to the planned budget funds at the national level. Such approach should be immediately applied in the budget classification.

Consistent planning of sector policies and programme allocation of funds in the budget are also important in terms of promotion of availability and transparency of data related to budget planning and spending, which should, inter alia, enable calculation of certain indicators for the monitoring of realization of obligations defined in the sustainable development policy.

Bearing in mind that resolving of environmental problems has been postponed for a range of years now, and accumulated problems threatening to endanger the sustainability of natural resources, therefore prospects for a long-term stable and resource-efficient economic growth, it is necessary to establish the efficient and transparent **environmental protection fund – eco-fund**. Moreover, it is necessary to determine precisely the sources of financing and rules for earmarked allocation of funds based on transparent business and efficient resolving of environmental problems. It is also necessary to apply the EU approach, where environmental financing is observed from three aspects – public expenditures for the environment, expenditure by industry and expenditure by specialized producers, mainly pertaining to waste and waste water management. Ensuring functionality of the eco-fund will require broadening of basis for the collection of environmental taxes and fees for pollution and use of natural resources, taking as a model positive practice from the EU member states, especially from those which had achieved satisfying results in the transitional period, entirely closing their environmental financing system in the pre-accession period.

Market-based economic instruments of significance for the environment have been widely applied in the EU member states and are considered as mechanisms which significantly (in parallel to regulatory instruments) contribute to implementation of environmental policy. Particularly interesting experience and results in the EU are recorded in application of instruments directed to water consumption, pesticide taxing, fees for exploitation of non-metallic mineral resources, tree protection fees, deposit for beverage packaging, plastic bags taxing, water pollu-

58 Government of Montenegro, Competitiveness Agenda by 2020, Kolašin, 19 April 2016.

tion fees and use of natural resources taxing⁵⁹.

Table 5-4 contains an overview of environmental financing framework, which integrates sources and proposed purposes. In fact, new draft Law on the Environment stipulates that funds for financing of eco-fund shall be provided from: the budget of Montenegro; environmental fees; loans, donations and aid; the European Union instruments, programmes and funds, the United Nations instruments, programmes and funds and those from other international organization; foreign investments allocated for environmental protection and other sources in compliance with law. It was also proposed that finances collected by the eco-fund should be used for financing the preparation, implementation and development of programmes, projects and similar activities aimed at conservation, sustainable use, protection and improvement of environment, energy efficiency and use of renewable energy sources, realization of goals and implementation of environmental principles so as to achieve integrated and comprehensive conservation of environmental quality, conservation of biological, geolog-

ical and landscape diversity and rational use of natural resources and energy as the main conditions for sustainable development and exercise of citizens' right to live in healthy environment. Furthermore it was concluded that the establishment act would regulate organization and methodology of work, competence, bodies, financing manner and use of funds, as well as other matters of importance for the eco-fund functioning.

In addition to possibilities which should be taken into account with regard to positive EU practice and in relation to broadening of basis for the collection of taxes and fees, it is also necessary to ensure that eco-fund functioning enables application of a range of incentive measures, such as measures for introduction of green infrastructure, green mobility, and pilot projects addressing the establishment of an integrated sustainable transport system. Introduction thereof would reduce the needs for the construction of the so-called grey infrastructure⁶⁰. The Fund's incentive measures should comprise other sectors of key importance for the improvement of resource efficiency, including tourism. Due to strong connections between tourism and other sectors, even small steps towards tourism greening will have a tremendous influence on the entire economy greening.

As it could be seen from the table, an important component of sustainable environmental financing includes the need for adequate valorization of natural resources and inclusion thereof into measuring of the economy suc-

⁵⁹ Denmark and the Netherlands are the EU member states with widest range of bases for application of taxes and fees, with specific stress on taxation of pollution and use of natural resources. Environmental taxes and fees for the environment have been a part of Danish system since 1970s. In the recent period these instruments have been generating 8 – 10.5 billion Euros of annual revenues, i.e. up to 4% GDP. Danish green taxes are designed in such way to influence behaviour and lead to sustainable choices of all social and economic stakeholders, and are considered successful ones (which is corroborated by reduction in use of pesticides and packaging, as well as other positive trends).

⁶⁰ European Commission: Green Infrastructure – Strengthening the European Natural Capital {SWD(2013) 155 final}.

cess. One of the NSSD strategic goals is also to enable valorization of natural capital and ecosystem services and incorporation thereof into balances by public administration and companies. This is why it is necessary to improve the methodologies for valorization of ecosystem services. It is also a priority to use available documents and develop a systemic analysis of ecosystem services, especially of those provided by protected areas, national parks primarily. Doing so, it is also necessary to improve data about ecosystems and services they provide. Models for strategic valorization of ecosystem services should be developed as well, first of all through mid-term protected areas management plans and through spatial-planning papers as well. Based on positive experience, applicable in Montenegro, models for sustainable use of ecosystem services should be developed for e.g. areas of forestry, hunting, fishery and stimulation of businesses based on sustainable use and protection of ecosystems. Establishing the concession values related to use of natural resources should enable reflection of their real value, including degradation costs. It is necessary to ensure integration of information about resource values into decisions on public expenditures and approval of development projects by applying environmental impact assessment, cost-benefit analysis and so on. Environmental protection financing system should be promoted through introduction of fees for ecosystem services.

Environmentally unfriendly subsidies must be eliminated (SDG 12.c), and these include subsidies which do not take into account sustainable development criteria. Moreover, bearing in mind that application of this type of subsidies in long run so far has not demonstrated effectiveness in the context of improvement of production perfor-

mances and introduction of cleaner technologies. Elimination of environmentally unfriendly subsidies is even more important for resource efficiency in terms of providing proper signals to companies than in terms of public expenditures allocated for those purposes.

Paying real prices for the use of natural resources, therefore coverage of external costs incurred due to pollution and other adverse environmental effects must be ensured. The value of natural resources and/or damage caused by resource base degradation and pollution must be incorporated in product prices or companies' balance sheets.

This is why planning of use of the eco-fund financial means should enable support to introduction of green economy which is complementary and depends on resource efficiency (respective and relevant measures are provided in section 5.6.2 Financing for sustainable development).

Turning away from unsustainable practice of environmental financing based on sporadic remediation of damages instead of applying preventive systemic approach will include shift to stable and permanent environmental financing in Montenegro.

Starting from the above stated, strategic goal of the NSSD by 2030 - **establishing a sustainable environmental financing as a component of financing for sustainable development**, should be achieved through implementation of the following measures:

- Introduce a system of programme, dedicated annual budget planning for all budget beneficiaries (spending units), where funds for implementation of sustainable development programme ac-

tivities will be separately planned (recognition of sustainable development programmes by all beneficiaries), SDG 12 (12.2), SDG 17 (17.3, 17.9, 17.14, 17.18, 17.19);

- Establish the co-fund and promote mobilization of means for environmental financing through an efficient and financially sustainable environmental fund, along with the inclusion of new economic instruments in this area (green fiscal reform), SDG 17 (17.3, 17.14), SDG 12 (12.2);
- Eliminate environmentally unfriendly subsidies, including rationalization of inefficient subsidies, SDG 12 (12.c), SDG 17 (17.3, 17.14);
- Mobilize funds for the improvement of environmental infrastructure by combining economic instruments, stimulat-

ing foreign investments, through loans and developing partnership mechanisms with domestic and international partners (public and private sectors), SDG 12 (12.2, 12.c), SDG 17 (17.3, 17.14);

Such defined measures have significant influence for achieving sustainable goals 12 and 17, at the same time being related to the Addis Ababa Action Agenda, which inter alia defines: domestic public sources for environmental financing (C. 20-34), domestic and international private business and finances (C. 35-49), international development cooperation (C. 50-78), science, technology, innovations and capacity building (C. 114-124), as well as matter of data and further monitoring of the strategy implementation (C. 133-125).

Table 5-4: FRAMEWORK FOR SUSTAINABLE FINANCING THE ENVIRONMENT AND CONSERVATION OF NATURAL CAPITAL

FINANCIAL SOURCES (integrated approach through sources defined by the Law on the Environment)	ALLOCATION OF FUNDS (existing and new ones)
• environmental fees (<i>polluter pays principle</i>) - environmental pollution fees, i.e. fees for air emissions, waste generation and landfilling - fees to be paid by legal entities importing ozone depleting substances - fees for discharge of water emissions (Law on Waters and Law on Water Management Financing) - permits for trade in sources of ionizing radiation and radioactive materials - fees for the control of radioactivity of goods in import, export and transit - consider introduction of CO₂ emissions taxation • use of natural resources, including valorization of natural capital and ecosystem services (user pays principle, promotion of methodology for natural resources valorization, inclusion thereof into measuring of economic success) - use of waters - use of mineral raw materials - exploitation of forests • revenues collected from use of protected areas (National Parks), including ecosystem services • a part of revenues collected from excises on fossil fuels which would be used for remediation of negative environmental effects generated in combustion of fossil fuels • include additional tax revenues of importance for environmental protection (e.g. taxes on pesticide use, fees for use of non-metallic mineral raw materials, fees for tree protection, deposit for beverage packaging, taxation of plastic bags, water pollution fee and taxation of natural resources) • loans • donations and international development support, the EU instruments, programmes and funds (including co-financing), UN and international organizations' funds • other sources in compliance with law	PUBLIC EXPENDITURES¹: • financing the preparation, implementation and development of programmes, projects and similar activities aimed at conservation, sustainable use, protection and enhancement of the environment, energy efficiency and renewable energy sources (RES) • achievement of environmental goals and implementation of environmental principles with the aim to achieve integrated and comprehensive conservation of environmental quality, conservation of biological, geological and landscape diversity and rational use of natural resources and energy as the main prerequisites for sustainable development • exercise of citizens' right on healthy environment EXPAND EXPENDITURE ALLOCATIONS also to: • subsidies for cleaner technologies, alternative fuels and means of transport, use of RES and sustainable waste disposal, support to remediation of contaminated sites • sustainable nature-based forms of tourism, sustainable cities • incentives for introduction of green infrastructure, for green mobility, research and innovations focused on new technologies, as well as through pilot projects for the establishment of integrated sustainable transport system CANCEL THE EXPENDITURES: • for environmentally-unfriendly subsidies, i.e. subsidies which do not take into account the principles of sustainable development governance

• mobilization of private sector funds - foreign investments intended for environmental protection - investments into green economy - public-private partnerships • other forms of public and private collaboration	EXPENDITURES FOR INDUSTRY • companies, including small and medium enterprises and entrepreneurs implementing green investments and creating green jobs
• revenues from the main business activity, loans, technical support from international public sources	EXPENDITURES OF SPECIFIC SUBJECTS • expenditures of specific polluters, including costs for waste and waste water management

1 Budget expenditures for environmental protection amounted to only 0.3% in 2013, i.e. **0.016% GDP**.

5.6.2. Financing platform for sustainable development of Montenegro by 2030

Establishing sufficient and stable financing sources is a prerequisite for successful incorporation and implementation of sustainable development goals, i.e. of the UN Agenda for sustainable development by 2030, in the national sustainable development strategies.

Green packages, such as the EU green package enable support to wider approach to sustainable development which goes beyond environmental framework and includes overall investments into human, social, natural and economic capital of the country. In addition to instruments and measures analyzed in section 5.6.1, green packages include additional funds as well, comprising the improvement of international trade as a vehicle for development, and green investments into key economic sectors.

In addition to the fact that sustainable and stable environmental financing system has

not been established in Montenegro, so far there have been no attempts to introduce green tax reform whereby tax burden would be partially shifted to activities leading to resource base depletion and pollution. Positive experience in application of these measures can be found in the EU, so it would be advisable to conduct the analysis to demonstrate how many new jobs could be created if total tax expenditures related to the employment are reduced, and discrepancy would be covered by elimination of environmentally unfriendly subsidies and by increasing taxes, i.e. by applying the polluter pays/user pays principles more consistently.

Based on positive experience from the EU member states, in addition to the establishment of the eco-fund, it is necessary to consider **further green tax reform**, which would be not only a source of income for environmental financing, but also for **financing of sustainable development in integrated context** (e.g. for low-carbon development, resource efficiency, social inclusion, etc.). Innovative tax interventions would ensure funds for financing of broader sustainable

development needs. Broadening tax basis would enable broadening of subsidies for sustainable development priorities such as: measures for introduction of green economy, support to technological development and innovations, support to marginalized groups and other priorities defined herein.

As already said in environmental financing, aggregation of total funds for sustainable development financing will require innovations in budget classification, and capacity building for calculation of total funds at annual level. That is why determination of allocations for sustainable development policy implementation in the budget of Montenegro is a NSSD strategic goal. Adjustments should be made in the process of planning⁶¹, adoption, implementation and reporting on budget realization, i.e. adjustments in budget classification⁶² and programme budgets⁶³ for budget spending units through restructuring of budget allocations system so as to apply as obligatory criteria for budget items classification which supports sustainable development priorities.

61 Pursuant to the Law on Budget and Fiscal Accountability (Article 28), budget planning is based on the “economic and fiscal policies, fiscal policy guidelines, projections of economic growth and projections of macroeconomic stability”

62 Budget classification is a system of unique classification based on which budget is prepared and executed, and it includes: organizational, economic, functional, programme and project classification

63 Programme budget is a part of annual law on budget and it includes tasks and activities of certain budget spending units implemented with the aim to ensure efficient management of funds as per proposed programmes and sub-programmes, which contribute to the achievement of strategic goals in accordance with the state economic policy.

This furthermore implies wider green fiscal reform, i.e. defining of a green package for sustainable development of Montenegro. It would integrate a wide array of tax interventions, such as: energy efficiency, GHG emissions taxing, subsidies for increased use of renewable energy sources, investments into energy efficient building construction, stimulation of green public procurements, promotion of alternative vehicles, greening the economy in entrepreneurship and small and medium-size enterprises, promotion of social responsibility focusing on the promotion of recycling, incentives for sustainable cities, for creation of green jobs, for the improvement of healthcare system in the context of environmental protection and sustainable development, and so on.

Since there is no green economy without efficient use of resources, neither is there sustainable development without green economy, the system of financing for sustainable development must ensure stable source to finance priorities while greening the national economy. In the literature and policy making processes, there are several other related sustainable economy concepts in application in addition to circular economy concept. At global level, in the processes conducted within the UN system, somewhat more attention is paid to the green economy concept (as well as to sustainable consumption and production), while European policies are more dedicated to resource efficiency concept. Both these policies and documents recognize the need to transform the economy to ensure development sustainability within the boundaries imposed by natural environment, which is one of the main requirements of circular economy.

In the Communication from June 2011⁶⁴, the European Commission recommended to make a shift to green economy through the following three mutually related policy dimensions:

- a) investing into sustainable management of key resources and natural capital;
- b) creating adequate market and regulatory conditions
- c) enhancing management and inclusion of private sector.

Starting from the notion that shift to green economy requires a multi-sectoral and integrated approach and actions in several fields, possibilities were recognized for greening the Montenegrin economy, goals were proposed and priority measures recommended for greening the economy in the period by 2020⁶⁵. Sustainable agriculture and forestry, energy efficiency (in all sectors), renewable energy sources and development of sustainable tourism are the main directions for greening the Monte-

negrin economy. Possibilities for the economy greening were recognized in the area of waste management, development of environmental infrastructure, sustainable production and consumption, investments into natural capital, sustainable resource management, science and research, and in other areas. Investments in these areas can deliver positive results only if implemented under favourable conditions, which implies creation of adequate regulatory framework (which will set rules and incentives for creation of green economic activities, remove barriers and ensure control over unsustainable activities), ensuring financial support, change in behaviour patterns and development of new knowledge and abilities.

Creation of new, green jobs, strengthening economic competitiveness, capacity building at all levels, reduction of regional development discrepancies and poverty reduction, conservation of natural values and ecosystem resilience, adaptability to climate change, improved management and inclusion of social stakeholders, are only some benefits characteristic for the economy greening process.

⁶⁴ European Commission, COM(2011) 363 final, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Rio+20: towards the green economy and better governance, Brussels, 2011)

⁶⁵ Ministry of Sustainable Development and Tourism, Making the Economy of Montenegro Green, analytical document on challenges and possibilities for making the economy green, integrated into the National Platform for Participation at the Rio+20, Government of Montenegro, 2012.

In addition to instruments which will support priorities of green economy through sustainable environmental financing, a part of financing platform for sustainable development by 2030, it is necessary to priorities introduction of market and regulatory instruments so as to overcome the so far challenges of sustainable development and make significant steps further towards faster even and fair development which conserves natural capital at the same time enabling gradual shift to green economy.

Beside economic instruments for environmental financing, especially those signifi-

cant for elimination or reform of environmentally unfriendly subsidies and valuation of natural resources and ecosystems and adequate representation thereof in national accounts, introduction of green economy includes a wide array of policies and measures such as: **sustainable public procurements, innovative financing, introduction of progress indicators, partnership and measures for the promotion of social corporate responsibility, technical standards and making the labour market and spatial planning green, application of ICT, adequate social policy, transparency and accountability, etc. Capacity building, education, training and ability development, as well as strengthened scientific-research activities are also crucial.**

International cooperation in the development and application of green economy measures and in the provision of missing technical and financial support to green investments is of great importance for Montenegro as developing country.

In institutional terms, it is obvious that there are considerable resources for the support in implementation of sustainable development goals in the national context, so it is necessary to improve coherence of policies of importance for the sustainable development (SDG 17.14) and integrate therein the environmental and climate measures (SDG 13.1). Harmonization of sector policies with the needs of sustainable development financing will enable functional and financial connection between different economic sectors and expected green and sustainable performances they should generate. This is why the Ministry of Finance should play a key role in making public spending and sector policy financing green, and in harmonization thereof with the needs of sustainable

development goals implementation. **In addition to a unit which would be established in the Ministry of Finance for those purposes, and with the established eco-fund, it is also necessary to establish a control mechanism within the Commission for Economic Policy and Financial System, application of which would disable adoption of documents and regulations which are not compliant with the sustainable development priorities of Montenegro by 2030.**

The listed three institutional components should play a key role in greening the sustainable development financing system in the period by 2030. In other words, strategic goal **“Enable introduction of green economy by mobilizing funds for sustainable development financing”** can be achieved by applying the following measures:

- Provide financial support to the development of mechanisms and capacities for the introduction of green economy in ten priority sectors, SDG 9 (9b), SDG 10 (10.1, 10.2, 10.4, 10.b), SDG 12 (12.a, 12.c), SDG 13 (13.3), SDG 15 (15.a, 15.b), SDG 17 (17.1, 17.3, 17.14, 17.16):

1. Sustainable agriculture and rural development (including: promotion of areas with limited possibilities for agricultural production; conservation and sustainable use of genetic resources; organic production; sustainable use of mountain grazing land);
2. Strengthening linkages between tourism and agriculture;
3. Development of green forms of tourism -diversification of touristic offer;
4. Sustainable forestry;
5. Development of sustainable RES and

reduction of environmental emissions and pressures;

6. Energy efficiency (households, public sector, commercial sector, transport, processing industry); it is particularly necessary to green spatial planning and construction (further integration of energy efficiency requirements into spatial plans, but also in use of construction materials, enable conservation of landscape and natural values in spatial plans; enable spatial planning which takes climate change influences into account);

7. Sustainable production and consumption for efficient use of resources and strengthening competitiveness (processing industry, services, small and medium-size enterprises);

8. Natural capital (protected areas, conservation of ecosystem stability, especially of sensitive ones, conservation of landscape and spatial values; water resources, coastal zone and land);

9. Infrastructure which contributes to conservation of environment (in the area of waste, waste water management, transport, construction), as well as green and climate resilient infrastructure;

10. Science and research, education (innovations and technological development, project co-financing).

- Establish a suitable regulatory framework (including market mechanisms within the green package) for investments into green economy, SDG 8 (8.2, 8.3), SDG 10 (10.2, 10.3, 10.b), SDG 12 (12.2, 12.c), SDG 13 (13.2, 13.a), SDG 15 (15.2), 16 (16.6), SDG 17 (17.1, 17.2, 17.3, 17.4, 17.5, 17.6, 17.7, 17.14, 17.17, 17.18, 17.19)

- Institutionally and organizationally strengthen coherence of policies of importance for sustainable development financing SDG 10 (10.6), SDG 17 (17.3, 17.10, 17.11, 17.12, 17.13, 17.14, 17.18 and 17.19), which in particular includes:

- Enabling at least one civil servant in the Ministry of Finance tasked with sustainable development financing so as to improve state budget planning and execution in organizational and human resource terms. His/her tasks would include financial planning, tracking and aggregating current but also capital expenditures of the budget spending units related to sustainable development financing, including expenditures and investments for sustainable development of human, social and economic capital of Montenegro.

- Strengthening administrative capacities in local self-government units to apply the same principle in tracking allocations for sustainable development financing at local level.

- Establishing control mechanisms within the Commission or Economic Policy and Financial System application of which would disable adoption of documents and regulations which are not in compliance with priorities of sustainable development of Montenegro by 2030. The Ministry of Sustainable Development and Tourism (i.e. future organizational unit for implementation of the sustainable development policy) should provide opinion related to consideration of certain documents when proposed to

the Government for the adoption⁶⁶;

- Encourage transparency, inclusive and non-discriminatory international trade through greater availability of loans, guarantees, collaterals, factoring and innovative financial instruments, including those for micro- small and medium-sized enterprises. Also, this measure should include stimulation of regional trade and interconnectivity, SDG 10 (10.6), SDG 17 (17.10, 17.11, 17.12);
- Enable public debt management based on intergenerational equity and sustainable development principles, SDG 17 (17.4, 17.13, 17.14, 17.18, 17.19).

Such defined measures have significant influence on the achievement of sustainable development goals 12 and 17. These measures are also directly connected to Addis Ababa Action Agenda, which inter alia recognizes environmental financing sources: domestic public sources for environmental financing (C. 20-34), domestic and international private business and finances (C. 35-49), international development cooperation (C. 50-78), fair international trade for all (C. 79-91); indebtedness level and public debt management (C. 93-102); science, technology, innovations and capacity building (C.

114-124), as well as matter of data and further monitoring of the strategy implementation (C. 133-125).

It can also be assessed that priorities for greening the national economy, as well as instruments and measures for implementation of those priorities, compatible with possibilities and obligations in the context of Addis Ababa Action Agenda implementation.

(Footnotes)

1 Modified according to: UN, The road to dignity by 2030: ending poverty, transforming all lives and protecting the planet, Synthesis report of the Secretary-General on the post-2015 sustainable development agenda (2014; p.21). Available at http://www.un.org/ga/search/view_doc.asp?symbol=A/69/700&Lang=E

⁶⁶ The proposal developed based on recommendations from the UNDP Regional Centre, Istanbul, (Regional Service Centre for Europe and the CIS/the Istanbul International Centre for Private Sector in Development) 2015; Establishing adequate institutional mechanisms and coordination of sector policies monitoring within the Government, in the context of sustainable development policy and financing (budgeting, adoption of strategic documents, investment plans and projects) - emphasised in the Addis Ababa Action Agenda (AAAA).

6





Fifteen-year NSSD Action Plan - a platform for measuring the sustainability of national development

The NSSD Action Plan by 2030 shall set forth measures with relevant detailed elaboration through sub-measures and target outcomes within the sustainable development strategic goals of Montenegro. It has enabled determination of answers of Montenegrin society in time horizon of this strategy to problems, weaknesses and lacks characterizing the existing status of development and governance system. At the same time, priority topics, strategic goals, measures and sub-measures of sustainable development by 2030 are the answer of Montenegro to obligations resulting from the UN Agenda for sustainable development by 2030, taking into account that NSSD by 2030 is a platform for transposition of the sustainable development goals and indicators into the national context. Strategic goals have been defined with consideration of national circumstances, but also taking into account the national obligations in global context. This means that measures and sub-measures, in addition to national circumstances

and needs, take into account the necessity of contribution to the achievement of goals defined in the Agenda for sustainable development by 2030.

The way the UN sustainable development goals are transposed into the national context through the NSSD, i.e. the overview of all tasks related to the goals and priority areas they have been recognized in, are presented in Table 6-1. Namely, out of 169 individual sustainable development tasks, structured around 17 sustainable development goals, 167 have been transposed into measures defined in the Action Plan in accordance with national circumstances and future needs. Two remaining tasks are not significantly relevant for Montenegro, and these are: 9.a - facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing states, and 9.c - Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020. The last column indicates whether there are any tasks within certain sustainable development goal which are not relevant in Montenegrin context.

It is important to note that most of 167 transposed tasks have been recognized as relevant ones for several priority NSSD themes, thus confirming universal nature and cross-sectoral character of this Strategy, and stressing the need for functional integration of all dimensions of sustainability of the national development. Of all relevant tasks, 95 have been recognized in one priority theme, 49 in two, 17 in three, 4 in four, and 1 has been recognized in five NSSD priority themes.

Annex PIII hereto contains an overview of recognized relevance of the UN tasks with regard to the NSSD priority themes. Penultimate column, "non-integrated tasks", indicates whether a specific sustainable development goals contains any tasks recognized as irrelevant, while the last one, "coverage", provides a summary number of the NSSD priority themes wherein a specific sustainable development task has been recognized as relevant.

The Agenda has defined a need for progress monitoring in implementation of universal goals, including the instruments for implementation in all countries in the way which comply with their universal, integrated and mutually related nature of three sustainable development pillars. This is why the NSSD strategic goals and measures focus on problems solution of which requires: strategic and normative adjustment of public policies and regulations; application of cross-sectoral cooperation mechanisms through integrated overview of problems, coordinated cooperation between line institutions and achievement of synergy effects, especially with those problems where sectoral mechanisms do not have necessary instruments or have been unsuccessful in previous processes; priority actions, taking into account that resolving of environmental pollution problems, economic and social development will depend on the success of problem solving process; application of coordination mechanisms in resolving cross-sectoral conflicts; development of an efficient and effective sustainable development governance system. This will all enable meeting the requirement of the Agenda for sustainable development by 2030 about the necessity to respect universal, integrated and mutually related nature of three sustainable development dimensions.

In accordance with measures defined in the part addressing the sustainable development governance, the first pilot progress report on implementation of the NSSD by 2030, which will be prepared in 2019, should be based on application of 42.3% of sustainable development indicators which should be introduced into a regular monitoring system (detailed overview of indicators status has been provided in Chapter 7). Preparation of the report should be preceded by introduction of missing sustainable development indicators into the national system and establishing of the information system for processing of sustainable development indicators and support to reporting on implementation of the NSSD by 2018. This and next regular biannual progress report will be considered by the National Council for Sustainable Development, Climate Change and Integrated Coastal Zone Management and the Government of Montenegro, and based on the found status, measures will be fined for the improvement of further implementation of sustainable development policy. Taking into account that NSSD is a platform for transposition of global sustainable development goals and tasks into the national context, the Progress Report will serve for reporting about the national contribution to implementation of sustainable development goals and tasks to the UN Economic and Social Council (ECOSOC) and the UN Statistical Commission.

Starting from the platform which will be set by the NSSD by 2030, all relevant authorities should determine by 2017 a connection between certain sustainable development goals and their sectoral strategies, plans and programs, measures and actions they will be responsible for in implementation of the NSSD. Accordingly, it is necessary to determine relevance of sustainable develop-

ment tasks and indicators in terms of their integration into sectoral policies. This will enable harmonization of current relevant strategies, programs and plans with the NSSD to be completed by 2018. This is why it is important to use the forthcoming biannual period to conduct detailed analyses of the national institutional system with respect to mechanisms and measures defined herein in terms of establishing an operational system for transposition of sustainable development goals and indicators into the national monitoring and reporting system and adjustment of the existing sectoral national strategies, programs and plans to the sustainable development goals and tasks.

Table 6 - 1 Overview of integration of goals and tasks from the UN Agenda for sustainable development by priority NSSD themes

	Human resources	Social resources	Natural resources	Economic resources	Sustainable development governance	Financing for sustainable development	Not relevant
SDG 1		1,2,3,4,3,5,a,b	5,				0
SDG 2		1,2	4	3,4,5,a,b,c			0
SDG 3	1,2,4,5,6,7,8,a,b,c	1,2,3,7,8	9,d				0
SDG 4	1,2,3,4,5,6,7,a,b,c	4,7					0
SDG 5		1,2,3,4,5,6,a,b,c					0
SDG 6			1,2,3,4,5,6,a,b	3,b	a,b		0
SDG 7			2,3,a	1,2,3,a,b			0
SDG 8	3	1,2,3,5,6,7,8,9,b	3, 4,	1,2,3,4,5		2,3, a	0
SDG 9		1	4,5	1,2,3,4,5		b	a,c
SDG 10	7	1,2,3,4,c		2,7,b		1,2,3,4,5,6,a,b	0
SDG 11		1,2,4	1,2,3,4,5,6,7,a,b,c	6,b			0
SDG 12			1,2,4,8	1,2,3,4,5,6 7,8,a,b,c		2,a,c	0
SDG 13			1,2,3,a,b	1,2,3		2,3,a	0
SDG 14			1,2,3,5,7,a,b,c	1,2,4,5,6,c			0
SDG 15			1,2,3,4,5,7,8,9,a,b,c	2, 5, 6,b		2,a,b	0
SDG 16		1,2,3,4,5,6,7,9,10,a,b	6		6,7,8,10,b	6	0
SDG 17	4		4,15,17	1,2,3,4,6,7 9,13,14, 16,17,18,19	1,3,6,7,8,9,13 14,15,16,17 18,19	1,2,3,4,5,6,7,9, 10,11,12,13,14 16,17,18,19	0

NSSD Action plan by 2030

HUMAN RESOURCES

THEMATIC AREA 1. IMPROVEMENT OF HUMAN RESOURCE STATUS AND STRENGTHENING SOCIAL INCLUSION

STRATEGIC GOAL 1.1 IMPROVE DEMOGRAPHIC TRENDS AND REDUCE DEMOGRAPHIC DEFICIT

INSTITUTIONS RESPONSIBLE

Leading institution/s: Ministry of Labor and Social Welfare, Ministry of Health and Ministry of Interior
Institutions involved in implementation: Ministry of Finance, Pension and Disability Insurance Fund, Ministry of Sustainable Development and Tourism, Ministry of Agriculture and Rural Development, Ministry of Education, Ministry of Science, MONSTAT, Directorate for Youth and Sport, Directorate for Diaspora

MEASURES	SUB-MEASURES	INDICATORS	TARGET TO BE ACHIEVED BY 2030
1.1.1 Prevent and mitigate the effects of population aging SDG 8 (8.3), 17 (17.4)	1.1.1.1 Consider a possibility of implementation of pro-natality policy (especially through instruments of employment growth referred to in goals 2.5 and 4.7, as well as fiscal relieves for families/mothers with more children, measures referred to in 2.1.1.1).		
	1.1.1.2 Ensure adequate level of social benefits for children.	- NILJ01 MONSTAT, Number of live births - NILJ02 MONSTAT, Number of deaths	
	1.1.1.3 Improve physical and social infrastructure, which emphasis on rural/less developed areas.	- NILJ03 MONSTAT, Natality rate - NILJ04 MONSTAT, Mortality rate - NILJ05 MONSTAT, The rate of natural increase	- Natality rate growth trend - Improved social policy for children
	1.1.1.4 Strengthen family values.	- NILJ06 MONSTAT, Number of marriages	
	1.1.1.5 Ensure adequate level of health protection for senior population.	- NILJ07 MONSTAT, Number of divorces - NILJ08 MONSTAT, Nuptiality rate	- Improved quality of physical and social infrastructure
	1.1.1.6 Ensure adequate level of social protection for senior and vulnerable populations.	- NILJ09 MONSTAT, Divorcality rate - NILJ14 MONSTAT, Average life expectancy	- Ensured sustainable pension system
	1.1.1.7 Ensure sustainability of pension system, implement reform of pension and disability insurance system so as to contribute to delayed exit from the labor market, i.e. to stimulate longer population activity and sustainability of current financing of pension system on medium and long term (e.g. by eliminating special conditions for retirement, which will contribute to sustainability of the pension system and respect of equality and fairness principle, as well as to the prevention of non-systemic solution of questions related to other systems such as unemployment, redundancies, social protection and so on – through pension system, thus reciprocally influencing already low rate of Montenegrin population activity, SDG 8 (8.3), 17 /17.4).	- NILJ25 MONSTAT, Masculinity rate in live births - NILJ26 MONSTAT, Masculinity rate in deaths - NILJ27 MONSTAT, Masculinity rate in deceased infants - SDG 17.19.2 Participation of countries which a) have implemented at least one census of population and households in the past ten years, and b) realized 100% registration in birth registers and 80% registration in death registers	- Increased activity rate of population between 15 and 64 years of age (from 52.5% in 2015 according to Labour Force Survey (LFS) to 57.5% by 2030) - Increased average life expectancy

1.1.2 Prevent and mitigate the effects of migrations SDG 10 (10.7)	1.1.2.1	Create a comprehensive migration strategy at national level, SDG 10 (10.7).	- SDG8.8.1 Prevalence rate of fatal and non-fatal injuries at work, by sex and status of migrant workers, especially female migrants, and persons with insecure employment	- Existence of migration strategy at national level - Achieved positive migration sum - Continual growing trend of youngsters specializing abroad, and being later employed in Montenegro - Established more efficient information basis about migrants
	1.1.2.2	Improve information bases for socio-demographic structure of migrants, as well as of their migration motives and planned duration thereof.	- SDG 8.8.2 Increase of the national observance of labor rights (freedom to associate and collective negotiations) based on textual sources of the International Labor Organisation (ILO) and national legislation, by sex and migrant status	
	1.1.2.3	Ensure competitive level of wages in vulnerable activities.	- SDG10.7.2 Number of countries which have implemented well-governed migration policies	
	1.1.2.4	Improve the attractiveness of the state as a destination for immigration in desirable occupations.	- NILJ10 MONSTAT, Movement of Montenegrin population by municipalities	
	1.1.2.5	Improve the system for national support to youth for professional and scientific specialization abroad.	- NILJ11 MONSTAT, Number of Montenegrin citizens who had moved into Montenegro - NILJ12 MONSTAT, Number of Montenegrin citizens who had moved out of Montenegro - NILJ13 MONSTAT, Number of foreign citizens who had moved into Montenegro	

THEMATIC AREA 1. IMPROVEMENT OF HUMAN RESOURCE STATUS AND STRENGTHENING SOCIAL INCLUSION

STRATEGIC GOAL 1.2 IMPROVE HEALTH OF CITIZENS OF ALL AGES AND REDUCE INEQUALITIES IN HEALTH STATUS

INSTITUTIONS RESPONSIBLE

Leading institution/s: Ministry of Health

Institutions involved in implementation: Institute for Public Health of Montenegro, Ministry of Sustainable Development and Tourism, Ministry of Finance, Ministry of Agriculture and Rural Development, Ministry of Science, Ministry of Labor and Social Welfare, Environmental Protection Agency, Centre for ecotoxicological testing, healthcare institutions, NGO sector

MEASURES	SUB-MEASURES	INDICATORS	TARGET TO BE ACHIEVED BY 2030
1.2.1 Improve maternal and newborn health protection and health protection of other vulnerable and disadvantaged groups of population SDG 3 (3.1, 3.2 and 3.7)	1.2.1.1	Improve the quality and reduce inequalities in access to maternal, infant, children and adolescent healthcare, SDG 3 (3.1 and 3.2).	- Neonatal and under-five mortality approximated to the EU average - Reduced health-risky behavior in adolescent population - Established efficient control and eliminated/eradicated immunization-preventable diseases - Created and implemented national strategy for reproductive health - Programme "Parenting Education" functions in all healthcare centers - Improved functioning of stop smoking support programmes in all healthcare centers - "Baby friendly" programme established in all maternity hospitals - Healthcare-education activities implemented in all pre-schools and schools and with youth - Strengthened capacities, efficiency, coverage, diversification of programmes and services of advising clinics within healthcare centers - Established efficient cooperation between healthcare institutions, centers for social work and social and child protection institutions - Improved planning, implementation and monitoring of healthcare programmes through integration of social determinants of health and equality in accordance with the WHO recommendations and guidelines - Increased proportion of healthy years in average life expectancy in under-55 population - Improved services of physical treatment for persons with disabilities - Increased proportion of persons with disabilities having access to health protection services - Reduced proportion of households with persons with disabilities exposed to high private expenditures for healthcare services - Introduced healthcare mediators by population groups - Established Institute for Labor and Sport Medicine - Established registers of exposure of employed population to toxic substances - Developed National plan for elimination of asbestos and TPB substances
	1.2.1.2	Universal accessibility to services for the protection and improvement of sexual and reproductive health, SDG 3 (3.7).	
	1.2.1.3	Strengthen routine immunization programmes so as to achieve defined minimal immunization coverage level.	
	1.2.1.4	Improve conditions promoting active and healthy aging, as a process of optimization of circumstances for better health status, higher participation in society and safety of senior citizens aimed at the improvement of their life quality.	
	1.2.1.5	Improve the access to healthcare services and programmes for persons with disabilities.	
	1.2.1.6	Strengthen sector policies and actions aimed at increasing equality in healthcare through actions focused on social health determinants.	
	1.2.1.7	Improve and conserve health of employed population, with regard to suppression and prevention of impact of ergonomic effects to health status	
	1.2.1.8	Improve and conserve health of athletes.	
	1.2.1.9	Establish registers of exposure to carcinogenic, toxic, persistent and bioaccumulative substances at work and draft a study on relations between malignant illnesses and exposure to carcinogenic and TPB substances	
	1.2.1.10	Draft national strategy for elimination of exposure of population and employees to carcinogenic substances such as asbestos, benzo-a-pyrene and other carcinogenic substances classified as 1A group of 1A group IARC.	

1.2.2 Increase focus on the promotion of healthy life, prevention and control of illnesses SDG 3 (3.4, 3.5, 3.6, 3.a, 3.b)	1.2.2.1 Reduce by one-third premature mortality due to non-communicable diseases through promotion, prevention, early diagnosis and treatment of mental illnesses, SDG 3 (3.4). 1.2.2.2 Strengthen implementation of the WHO Framework Convention on Tobacco Control and reduce the prevalence of tobacco use, SDG 3 (3.a). 1.2.2.3 Strengthen prevention and treatment of misuse of psychoactive substances, including misuse of narcotic drugs and harmful use of alcohol, SDG 3 (3.5). 1.2.2.4 Halve death rate and injuries in traffic accidents, SDG 3 (3.6). 1.2.2.5 Strengthen early diagnosis and reduction of exposure to risk factors for non-communicable diseases increasing the risk of incidence of chronic diseases and death 1.2.2.6 Improve early diagnosis of malignant illnesses in target population 1.2.2.7 Increase the access and quality of treatment of non-communicable diseases and rehabilitation in secondary and tertiary healthcare level 1.2.2.8 Increase the access and quality of treatment of mental disorders. 1.2.2.9 Enable prevention of injuries through multi-sectoral approach in close collaboration of different social segments 1.2.2.10 Ensure the access to more affordable basic medicines and vaccines, SDG 3 (3.b). 1.2.2.11 Establish the national system for monitoring of antimicrobial resistance (AMR). 1.2.2.12 Reduce prevalence of contagious diseases, especially of HIV and tuberculosis 1.2.2.13 Introduce urgent response to threats to health safety and security.	-SDG 3.3.1 Number of HIV infections per 1,000 uninfected population, by sex, age and key populations -SDG 3.3.2 Tuberculosis incidence per 1,000 population -SDG 3.3.3 Malaria incidence per 1,000 population -SDG 3.3.4 Hepatitis B incidence per 100,000 population -SDG 3.3.5 Number of people requiring interventions against neglected tropical diseases -SDG 3.4.1 Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease -SDG 3.5.1 Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders -SDG 3.5.2 Harmful use of alcohol, defined according to the national context as alcohol per capita consumption (aged 15 years and older) within a calendar year in liters of pure alcohol -SDG 3.a.1 Age-standardized prevalence of current tobacco use among persons aged 15 years and older -SDG 3.4.2 Suicide mortality rate -SDG 3.6.1 Death rate due to road traffic injuries -SDG 3.9.1 Mortality rate attributed to household and ambient air pollution -SDG 3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services) -SDG 3.9.3 Mortality rate attributed to unintentional poisoning -SDG 6.1.1 Proportion of population using safely managed drinking water services -SDG 6.2.1 Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water -SDG 16.1.1 Number of victims of intentional homicide per 100,000 population, by sex and age -SDG 16.1.2 Conflict-related deaths per 100,000 population, by sex, age and cause -SDG 11.7.2 Proportion of persons victim of physical or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months -NIJ30 MDG4.2.2a, BCG -NIJ31 MDG4.2.2b, DTP -NIJ32 MDG4.2.2c, OPV -NIJ33 MDG4.2.2d, Hepatitis B -NIJ37 MDG6.1.1, Number of newly registered HIV cases (in a year) per 100,000 population -NIJ38 MDG6.1.2, Number of newly registered HIV cases (in a year) per 100,000 population -NIJ39 MDG6.1.3, Number of voluntary HIV tests per 1000 population -NIJ40 MDG6.2.1, Number of newly registered tuberculosis cases per 100,000 -NIJ41 MDG6.2.2, Number of incidence of multi-resistant tuberculosis in total number of tuberculosis incidence -NIJ42 MDG6.2.3, Death rate due to TBC per 100,000 population -NIJ43 MDG6.3.1, Death rate due to cardiovascular diseases (per 100,000 population) -NIJ44 MDG6.3.2, Death rate due to malignant tumors (per 100,000 population)	- Premature death caused by non-communicable diseases reduced by one-third - Reduced harmful use of alcohol - Reduced use of narcotic drugs - Reduced prevalence of smoking - Reduced prevalence of insufficient physical activity - Reduced prevalence of increased blood pressure - Introduced screening programme for increased blood pressure - Reduced intake of salt - Stopped increasing trend of diabetes and obesity - Eliminated tuberculosis as public health problem - Number of casualties in traffic accidents reduced by 50% - Achieved 50% of target population coverage with opportune screening on increased value of cholesterol and sugar in blood - Screening programme for early detection of colon cancer, breast cancer and cervical cancer continuously implemented in all municipalities - Adequate diagnostic and therapies of acute coronary syndrome available - Methadone programme available in all Centers for mental health - Established Register of traumatisms - Established reference laboratory for AMR - Already achieved target values of millennium development goals maintained - Adopted Guidelines for epidemic control
1.2.3 Improve the efficiency of healthcare system and quality of health protection SDG 3 (3.8 and 3.c)	1.2.3.1 Increase the efficiency of healthcare and employment, development, training and retention of healthcare workers, SDG 3 (3.c). 1.2.3.2 Increase the number of medical doctors in healthcare system, which will reduce burden on doctors and additionally contribute to an increase in healthcare quality and improve the relation between healthcare and non-healthcare service providers in accordance with the human resource plan in healthcare 1.2.3.3 Reorganize healthcare system from curative to preventive one 1.2.3.4 Achieve universal healthcare coverage, including the protection against financial risks, access to quality basic healthcare services and access to safe, effective, quality and affordable essential medicines and vaccines for all, SDG 3 (3.8). 1.2.3.5 Improve integration and coordination of healthcare services, promotion, prevention and treatment. 1.2.3.6 Increase the allocations for preventive services 1.2.3.7 Continue to strengthen primary health protection 1.2.3.8 Introduce mechanisms of financial protection against the risk of impoverishment in case of healthcare service use 1.2.3.9 Improve safety and security of patients and healthcare services quality 1.2.3.10 Improve the access and rational use of safe, efficient and quality medicines and other healthcare technologies 1.2.3.11 Adopt the Strategy and Law on Public Health 1.2.3.12 Establish a comprehensive framework for monitoring of healthcare situations, trends, inequalities and determinants by observing international standards for the collection of data and analysis thereof with the aim to improve quality of healthcare data and performance of the entire healthcare system 1.2.3.13 Develop key capacities for fulfillment of obligations resulting from the International Healthcare Regulations 1.2.3.14 Strengthen national capacities for continual functioning of healthcare system in emergencies and management of related public health risks, as well as adequate preparedness for the provision of urgent, predictable and efficient response in case of epidemic and pandemic	-SDG 1.a.2 Proportion of total government spending on essential services (education, health and social protection) -SDG 3.8.1 Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population) -SDG 3.8.2 Number of people covered by health insurance or a public health system per 1,000 population -SDG 3.b.2 Total net official development assistance to medical research and basic health sectors -SDG 3.c.1 Health worker density and distribution -SDG 3.d.1 International Health Regulations (IHR) capacity and health emergency preparedness -SDG 3.b.1 Proportion of the population with access to affordable medicines and vaccines on a sustainable basis -NIJ45 Number of medical doctors per 100,000 population -NIJ46 Occupancy of hospital beds -NIJ47 Allocations from the budget for healthcare per capita (calculated by the World Health Organisation) -NIJ48 Proportion of health expenditures in GDP (calculated by the World Health Organisation) -NIJ49 Proportion of health expenditures in the budget (calculated by the World Health Organisation) -NIJ50 Proportion of private household expenditures in total healthcare expenditures (calculated by the World Health Organisation)	- Reduction of discrepancies in expenditures for healthcare compared to the EU average - Proportion of healthcare expenditures in the budget exceeds 12% - Proportion of healthcare expenditures in GDP exceeds 9% - Reduced proportion of private household expenditures in total healthcare costs to less than 30% - Reduced discrepancies in number of doctors per 100,000 population compared to the EU average - Implemented Human Resource Plan in Healthcare 2013-2022. - Achieved universal healthcare coverage - Established functional integrated healthcare system and system of population registers as support to implementation of national priorities - Developed national capacity for implementation of risk assessment, information management, provision of answers and communication of risks for all public health urgent situations which pose potential threat at international level - Reduced AMR and established national monitoring system over AMR - Developed national capacities for the prevention and control of epidemic and pandemic diseases

THEMATIC AREA

1. IMPROVEMENT OF HUMAN RESOURCE STATUS AND STRENGTHENING SOCIAL INCLUSION

STRATEGIC GOAL

1.3 ENSURE INCLUSIVE AND QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL

INSTITUTIONS RESPONSIBLE

Leading institution/s: Ministry of Education

Institutions involved in implementation: Ministry of Science, Ministry of Finance, MONSTAT, Directorate for youth and sports

MEASURES	SUB-MEASURES	INDICATORS	TARGET TO BE ACHIEVED BY 2030
1.3.1 Ensure comprehensive, inclusive and quality pre-primary education SDG 4 (4.2 and 4.a)	1.3.1.1 Ensure that all girls and boys have access to quality development, care and pre-primary education in early childhood, so as to prepare them for primary education, SDG 4 (4.2).	- SDG 4.2.1 Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex	- Achieved coverage of pre-primary education and upbringing for all children, especially from 3 year-olds to the beginning of school, in compliance with international standards
	1.3.1.2 Increase the coverage of children with alternative pre-primary educational programmes (shorter programme, interactive services, three-hour programme).	- SDG 4.2.2 Participation rate in organized learning (one year before the official primary entry age), by sex	- Increased number of educational and upbringing institutions with implemented alternative programmes
	1.3.1.3 Increase allocations from the budget for pre-primary education (at the moment 0.38% GDP).	- SDG 4.a.1 Proportion of schools with access to: (a) electricity; (b) the Internet for pedagogical purposes; (c) computers for pedagogical purposes; (d) adapted infrastructure and materials for students with disabilities; (e) basic drinking water; (f) single sex basic sanitation facilities; and (g) basic handwashing facilities (as per the WASH indicator definitions)	- Increased number of municipalities with organized interactive services
	1.3.1.4 Construct and upgrade facilities for education tailored to children and persons' with disabilities needs, which are also gender sensitive and provide safe, non-violent, inclusive and effective environment for learning for all, SDG 4 (4.a).	- NILJ15 MDG2.1, Rate of enrolment into pre-primary education and upbringing institutions (by sex)	- Allocations from the budget in accordance with OECD average level (at the moment 0.5% GDP)
1.3.2 Promote primary and secondary education SDG 4 (4.1, 4.4, 4.6, 4.7, 4.b)	1.3.2.1 Increase the efficiency of investments and quality of primary and secondary education and maintain it free for all, SDG 4 (4.1).	- NILJ16 Allocations from the budget for pre-primary education (% BDP)	- Capacities of pre-primary institutions in accordance with OECD average (increased number of constructed upbringing facilities)
	1.3.2.2 Significantly increase the number of qualified teaching staff, SDG4 (4.b).		- Increased number of pre-primary institutions with English language courses
	1.3.2.3 Ensure that all youth and considerable proportion of adults, both men and women, learn to read and write and acquire numeracy literacy, SDG 4 (4.6).	- SDG 4.1.1 Proportion of children and young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex	- Free primary and secondary education for all
	1.3.2.4 Increase the quality of initial education of teachers, focusing on acquisition of practical skills for direct work with students.	- NID 43 MK, Proportion of teaching hours (%) dedicated to the promotion of multilingual culture compared to total number of teaching hours dedicated to languages (grades 7-8)	- Increased results in PISA tests
	1.3.2.5 Reduce violence among children and adolescents, promote programmes which encourage tolerance and problem solving through dialogue, as well as inclusion of vulnerable groups, SDG 4(4.7)	- NID 44 MK, Proportion of teaching hours (%) dedicated to art compared to total number of teaching hours (grades 7-8)	- Increased number of specialized classes which have started teaching in English language as well
	1.3.2.6 Continuously innovate curricula in primary and secondary education, SDG 4 (4.4).	- NILJ17 MDG2.1.1, Enrolment rate for primary schools (by sex)	- Increased number of trained teachers and professors for teaching in English language
	1.3.2.7 Ensure systems for monitoring the most talented students in primary and secondary schools in order to enable state financial support to their further education with the aim to put their knowledge and skills into the function of Montenegrin society development.	- NILJ18 MONSTAT MDG2.2.2, Rate of primary school completion (by sex)	- Reduced rate of violence among youth
		- NILJ20 Illiteracy rate among under-10-year-olds	- Increased rate of inclusion of vulnerable groups
			- Increased number of specialized classes in grammar schools. Increased number of students attending specialized classes

1.3.3 Promote educational and scientific component in higher education SDG 4 (4.3, 4.4, 4.c), SDG 8 (8.3)	1.3.3.1 Improve the position of Montenegrin universities at international rank lists through strengthened component of scientific research and improvement of working standards in this area 1.3.3.2 Ensure equal access to quality education in technical, professional and tertiary education, including universities, SDG 4 (4.3). 1.3.3.3 Increase expenditures for research and development from the budget, but also from private sources (through tax relieves, subsidies, etc.). The current level is 0.38% GDP (2014). 1.3.3.4 Improve the quality of teaching staff through better selection, employment conditions, use of international scholarships and exchange programme, SDG 4 (4.c). 1.3.3.5 Establish better connection with industry through creation of scientific-technological parks, excellence centers and inclusion in international research and development cooperation programmes, SDG 8 (8.3). 1.3.3.6 Harmonize the higher education system with the needs of society and labor market thus continuously influencing reduction of unemployment of youth, SDG 4 (4.4). 1.3.3.7 Ensure systems for monitoring the most talented university students in order to enable state financial support to their further education with the aim to put their knowledge and skills into the function of Montenegrin society development.	- SDG 4.b.1 Volume of official development assistance flows for scholarships by sector and type of study - NILJ 22 Expenses for research and development (% of GDP) - NIE60 MN. Investments in research and development (% of GDP) - NIE61 MN. Number of innovation-entrepreneurship centers - NIE62 MN. Number of employees in the Scientific-Technological Park within the MNU space - NID 45 MK Coherence and coverage index for technical and professional education and specialization, and higher education in the area of culture	- At least one Montenegrin university ranked in one of 3 most reputable international rank lists - Expenditures for research and development are at the level of 2.5% GDP - Number and quality of teachers has approximated the EU average - The first Scientific-Technological Park (STP) has been established within the space of MNU, with participation of all Montenegrin universities and higher education institutions (with growing number of STP members, both from higher education institutions, and from companies) - Growing number of employees in the Scientific-Technological Park; - Established innovation-entrepreneurship centre "Tehnpolis"; - Increased number of excellence centers in MNE and number of applications in international cooperation programmes in the area of research and development - Established national reference laboratories for environmental protection and human health, included in the system of scientific-research work institutions
1.3.4 Promote the conditions for lifelong learning, informal education and education for adults, focusing on vulnerable groups SDG 4 (4.5)	1.3.4.1 Increase participation of youth and adults in formal and informal education in accordance with labor market demand, SDG 4 (4.5). 1.3.4.2 Increase IT literacy of youth and adults, SDG 4 (4.5).	- SDG 4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex - SDG 4.4.1 Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill - SDG 4.6.1 Percentage of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex - NILJ 19 Expenditures from the budget for education (%GDP) - NILJ 21 MDG 2.3.1 Illiteracy rate	- Increased participation rate of youth in informal education - Increased participation of adults in informal education - IT literacy of youth at the EU average level - IT literacy of adults is approximating the EU average

SOCIAL RESOURCES			
THEMATIC AREA	2. SOCIAL RESOURCES - SUPPORT TO VALUES, NORM AND BEHAVIOR PATTERNS OF IMPORTANCE FOR THE SOCIETY SUSTAINABILITY		
STRATEGIC GOAL	2.1 STIMULATE ACTIVE RELATIONSHIP BETWEEN KEY ACTORS AND DEVELOPMENT SUSTAINABILITY		
INSTITUTIONS RESPONSIBLE	Leading institution/s: Ministry of Human and Minority Rights, Ministry of Labor and Social Welfare Institutions involved in implementation: Ministry of Education, Ministry of Culture, Council for the Protection against Discrimination, Directorate for Youth and Sport		
MEASURES	SUB-MEASURES	INDICATORS	TARGET TO BE ACHIEVED BY 2030
2.1.1 Ensure prerequisites for healthy development of individuals within their families SDG 3 (3.1, 3.2, 3.7), SDG 5 (5.2, 5.3 and 5.6), SDG 8 (8.7), SDG 16 (16.1, 16.2)	2.1.1.1 Ensure conditions for healthy and sustainable starting a family SDG 3 (3.1) and 5 (5.6): develop a system of education about the family and parenting before starting a family develop an efficient system for the support to families and parents with regard to all challenges of parenting and family life in order to improve demographic situation in the country, develop a system for support in starting a family and maintaining it, such as support in solution of housing issues, relieves in access to mortgage loans, relieves for business start-up, etc. ensure a universal access to sexual and reproductive health services, including family planning, informing and education, as well as integration of reproductive health into national strategies and programmes, SDG 3 (3.7), 5 (5.6).	- SDG 3.7.1 Proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern methods - SDG 3.7.2 Adolescent birth rate (aged 10-14 years; aged 15-19 years) per 1,000 women in that age group - SDG 16.2.1 Proportion of children aged 1-17 years who experienced any physical punishment and/or psychological aggression by caregivers in the past month - NIJ35 MZ Maternal mortality rate per 100,000 of live births - NIJ23 MDG4.1.1, Monstat, Infant mortality rate (per 1,000 live births) - NID01 MRSS Number of children placed in foster families - NID02 MRSS Proportion of processed cases compared to number of reported cases of forced marriages, classified by institutions (education, centers for social work, police, prosecution, judiciary), place/municipality, at annual level - NID03 MRSS Number of domestic violence victims who have been provided with general support services at annual level by 1) service type, 2) service provider, 3) municipality, - NID04 MRSS Geographic distribution of specialized, easily accessible and safe support services for violence victims by: a) type of support service, b) municipality, c) service provider and d) financial source - NID05 MRSS Number of violence victims accommodated in safe houses, compared to identified need for safe houses at annual level, classified by: a) all forms of violence, b) number of adults and number of children, c) children age and sex and d) municipality; - NID06 MRSS Proportion of allocations from annual and local budgets dedicated to undisturbed functioning of safe houses and accommodations for victims, compared to total budget for services in this area, at annual level - NID07 MRSS Number of (24/7) SOS phone lines at the state level which provide confidential and anonymous advising for violence victims and number of users of this service at annual level, classified by: a) number of adults and number of children, b) children age and sex, c) forms of violence, d) kinship of perpetrators and victims, and e) municipality; - NID08 MRSS Proportion of allocations from the state and local budgets dedicated to functioning of (24/7) SOS phone lines providing free advice to victims of all forms of violence, compared to total budget for services in this area, at annual level; - NID09 MRSS Number and regional distribution of centers providing specialized support to victims of rape or sexual violence (number of centers per number of inhabitants); - NID10 MRSS Number of victims of rape or sexual violence provided with specialized support compared to total number of reported cases of such violence compared to total number of reported cases of this violence at annual level - NID11 MRSS Number of cases in which competent bodies have pronounced protection and security measures to perpetrators - NID12 MRSS Number of cases in which competent bodies have found violation of protection and security measures - NID13 MRSS Number of cases filed for violation of protective measures - NID14 MRSS Number of offices/organizations providing free legal aid to victims of domestic violence - NID15 MRSS Number of persons provided with free legal aid - NID16 MRSS Number of children victims of domestic violence who used the support services (including psychological advising) compared to total number of identified children victims of domestic violence at annual level; - NID17 MRSS Number of court proceedings (criminal, offensive, and protective measures) where perpetrator was found guilty or was pronounced protective measures in relation to children victims of violence, compared to total number of court proceedings where perpetrators and/or victim had children at annual level; - NID18 MRSS Number and type of institutions (police, prosecutors, courts) where there is a specifically equipped room for interviews with victims of domestic violence customized needs of children and waiting rooms for victims witnesses separate from the accused ones.	- Achieved demographic growth of 1.4% compared to 2015 - The society accepts and supports new forms of family - Neonatal and under-5 mortality due to preventable diseases halted - Ensured universal access to sexual and reproductive health services, including family planning, informing and education, as well as integration of reproductive health in national strategies and programmes - Eliminate all forms of violence against women and girls in public and private spheres, including trafficking in human beings and sexual and other forms of abuse, as well as child, early and forced marriage - Significantly reduced all forms of violence, especially domestic violence and related mortality rates - Eliminated forced child labor - Abuse, use, trafficking and all forms of violence and torture of children halted - Increased number of children placed in foster families
	2.1.1.2 Educate population about alternative family forms (e.g. one-member family, single parent family, partnerships without formal marriage, foster families, etc.) develop and promote foster family system develop an efficient system for the support to children with disorders and development difficulties and their families.		
	2.1.1.3 Ensure that same-sex communities have all rights recognized in compliance with ratified international agreements and generally accepted rules of international law.		
	2.1.1.4 Efficiently fight against domestic violence, SDG 5 (5.2) and 16 (16.1, 16.2) raise public awareness about the problem of domestic violence establish an efficient system for the prevention of domestic violence improve social and other protection of domestic violence victims improve a normative system for regulation of the area of domestic violence improve protection of children against violence, abuse, neglecting and other forms of degrading treatment or punishment, including online violence, exploitation and children abuse, eliminate all harmful practices, such as child, early or forced marriage, SDG 5 (5.3) ensure the protection and elimination of all forms of child labor, SDG 8 (8.7).		
	2.1.1.5 Eliminate all forms of violence against women and girls in public and private spheres, including trafficking in human beings and sexual and other forms of abuse, SDG 5 (5.2, 5.3), SDG 8 (8.7).		

2.1.2 Eliminate gender discrimination SDG 5 (5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.a, 5.b and 5.c)	2.1.2.1 Eliminate everywhere all forms of discrimination against women and girls, SDG 5 (5.1, 5.2, 5.3, 5.6). 2.1.2.2 Recognize and valorize unpaid care and household work through provision of public services, infrastructure and social protection policies and promotion of joint responsibility in household and in family, SDG 5(5.4). 2.1.2.3 Ensure full and effective participation of women and equal possibilities for leadership at all levels in political, economic and public life, SDG 5 (5.5). 2.1.2.4 Implement reforms so as to ensure that women receive the same rights on economic resources, as well as access to ownership and control over land and other forms of property, financial services, heritage and natural resources, SDG 5 (5.a). 2.1.2.5 Improve the use of auxiliary technology, especially information-communication technology, for the promotion of empowerment of women, SDG 5 (5.b). 2.1.2.6 Adopt and strengthen appropriate policies and current laws for the promotion of gender equality and empowerment of all women and girls at all levels SDG 5 (5.c).	- SDG 5.1.1 Whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of sex - SDG 5.2.1 Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age - SDG 5.2.2 Proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months, by age and place of occurrence - SDG 5.3.1 Proportion of women aged 20-24 years who were married or in a union before age 15 and before age 18 - SDG 5.4.1 Proportion of time spent on unpaid domestic and care work, by sex, age and location - SDG 5.5.1 Proportion of seats held by women in national parliaments and local self-governments - SDG 5.5.2 Proportion of women in managerial positions - NID 31 MLJMP MDG 3.1 Women unemployment rate - NID 32 MLJMP MDG 3.1.2, Unemployment of women - NID 33 MDG 3.3 Proportion of positions held by women in the Assembly of Montenegro, - NID 34 MLJMP MDG 3.2.2, Proportion of women ministers in the Government - NID 35 MLJMP MDG 3.2.3, Proportion of women mayors - NID 36 MLJMP MDG 3.2.4, Proportion of women deputies in local assemblies - SDG 5.6.1 Proportion of women aged 15-49 years who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care - SDG 5.6.2 Number of countries with laws and regulations that guarantee women aged 15-49 years access to sexual and reproductive health care, information and education - SDG 5.a.1 (a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and; (b) share of women among owners or rights-bearers of agricultural land, by type of tenure - SDG 5.a.2 Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/ or control - SDG 5.b.1 Proportion of individuals who own a mobile telephone, by sex - SDG 5.c.1 Proportion of countries with systems to track and make public allocations for gender equality and women's empowerment - MIUCLG05 Proportion of women in the National Assembly - Gender Inequality Index (GII)	- Eliminated political, economic and any other gender-based discrimination - Minimum 40% women in political decision-making bodies at the national and local levels - Eliminated all forms of violence against women and girls in public and private spheres, including trafficking in human beings and sexual and other forms of violence - Gender equal participation in unpaid work - Gender equal participation in unemployment - Strengthened national gender equality mechanism
2.1.3 Eliminate national and religious discrimination SDG 10 (10.2, 10.3), SDG 16 (16.7, 16.9 and 16.b)	2.1.3.1 Harmonize legislation with international standards and constitutional norms on prohibition of discrimination, and implement non-discrimination laws, SDG 10, 16 (10.3, 16.b). 2.1.3.2 Modify and harmonize teaching-scientific and upbringing-educational curricula in order to include adequate contents from culture, tradition and history of all national and religious communities in Montenegro at all educational levels without discrimination. 2.1.3.3 Ensure conservation of cultural heritage, cultural-historic monuments and tradition of minorities. 2.1.3.4 Ensure normative and factual predispositions for the application of constitutional provisions on political representation of minorities in legislative, executive and judicial branches, SDG 16 (16.7). 2.1.3.5 Stimulate economic activities aimed at the development of underdeveloped regions where minorities are prevailing population, SDG 10 (10.2, 10.3). 2.1.3.6 Ensure integration of Roma and Egyptians into Montenegrin society, (SDG 16), through: adequate regulation of their legal status, SDG 16 (16.9) enabling the conditions for integration of Roma children into educational system at all levels stimulation of employment of Roma people ensuring the conditions for healthcare and social protection of Roma population creation of normative and factual conditions for participation of Roma and Egyptians in political life at state and local levels	- SDG 16.7.1 Proportions of positions (by sex, age, persons with disabilities and population groups) in public institutions (national and local legislatures, public service, and judiciary) compared to national distributions - SDG 16.7.2 Proportion of population who believe decision-making is inclusive and responsive, by sex, age, disability and population group - SDG 16.b.1 and SDG 10.3.1 Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law - NID37 MLJMP Number of enrolled Roma and Egyptian children in primary education in Montenegro - NID38MLJMP Ethnical distance level in Montenegro - NID39 MLJMP Drop out proportion of Roma and Egyptian children in primary education in Montenegro - SDG 16.9.1 Proportion of children under 5 years of age whose births have been registered with a civil authority, by age	- Montenegro is balanced multiethnic and civil society where cultural heritage is conserved as well as historic monuments, tradition and languages of all national and religious groups living in the country - Equal representation of members of all national communities in political decision-making bodies at the national and local levels - Ensured equal opportunities and reduced inequalities of outcomes through elimination of discriminatory laws, policies and practices and promotion of appropriate laws, policies and measures in that respect - Increased number of Roma and Egyptian children completing primary education - Reduced ethnical distance level in Montenegro

2.1.4 Eliminate discrimination of LGBT population SDG 3 (3.3) and SDG 16 (16.7, 16.b)	2.1.4.1 Improve legislative framework and penalty policy for fight against discrimination of LGBT population, SDG 16 (16.7, 16.b). 2.1.4.2 Promote social ambience for the acceptance of LGBT persons and raise awareness about international standards related to LGBT, SDG 16 (16.b). 2.1.4.3 Improve safety and security and social life of LGBT persons, SDG 16 (16.b). 2.1.4.4 Promote policy of equal treatment and protection against discrimination, SDG 16 (16.b). 2.1.4.5 Improve the safety and security of LGBT community, SDG 16 (16.b). 2.1.4.6 Improve the access for LGBT persons to the national healthcare system, SDG 3 (3.3) i 16.	SDG 16.7.1 Proportions of positions (by sex, age, persons with disabilities and population groups) in public institutions (national and local legislatures, public service, and judiciary) compared to national distributions SDG 16.7.2 Proportion of population who believe decision-making is inclusive and responsive, by sex, age, disability and population group SDG 16.b.1 Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law	- Elimination of all forms of discrimination of LGBT population - Integration of LGBT population in all spheres of social, economic and cultural life in Montenegro
2.1.5 Eliminate discrimination of persons with disabilities SDG 10 (10.3), SDG 11 (11.2), SDG 16 (16.7, 16.b)	2.1.5.1 Protect and improve the rights of persons with disabilities through the development of an efficient legal protection system through development of prevention and debarment of discrimination, SDG 10 (10.3), SDG 16 (16.7, 16.b). 2.1.5.2 Ensure conditions for full and active participation of persons with disabilities in all areas of social life equally, through the development and application of the policy on equal opportunities for all, especially in the area of employment, labor, education, culture and housing, SDG 10 (10.3). 2.1.5.3 Ensure social, healthcare and other services to persons with disabilities in accordance with their real needs and in compliance with international standards, SDG 10 (10.3). 2.1.5.4 Ensure adequate living standards and social security for persons with disabilities, SDG 10 (10.3). 2.1.5.5 Ensure access for persons with disabilities to their living environment, public transport, institutions, services, communication and information systems through planned and devised removal of barriers and construction of accessible facilities and services, SDG 11 (11.2). 2.1.5.6 Sensitize the society for problems and rights of persons with disabilities through systematic and planned education, awareness raising and elimination of the existing stereotype and prejudice, SDG 10 (10.3).	SDG 16.7.1 Proportions of positions (by sex, age, persons with disabilities and population groups) in public institutions (national and local legislatures, public service, and judiciary) compared to national distributions SDG 16.7.2 Proportion of population who believe decision-making is inclusive and responsive, by sex, age, disability and population group SDG 16.b.1 Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law	- Full and active participation of persons with disabilities in all areas of social life, at equal basis
2.1.6 Eliminate discrimination of senior citizens SDG 3 (3.8)	2.1.6.1 Increase efficiency and quality of social protection services for senior citizens, SDG 3. 2.1.6.2 Strengthen social and financial security of poor senior citizens, SDG 3. 2.1.6.3 Ensure adequate infrastructure for accommodation and care for senior citizens (including ill ones) SDG 3 (3.8). 2.1.6.4 Develop an efficient system for prevention and fight against violence against senior citizens, (SDG 3). 2.1.6.5 Build positive social climate towards senior citizens and aging as a process, (SDG 3).	SDG 16.7.2 Proportion of population who believe decision-making is inclusive and responsive, by sex, age, disability and population group SDG 16.b.1 Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law	- Ensured conditions for health lives and well being for people of all ages - Ensured conditions for active position and role of senior citizens in Montenegrin society - Constructed adequate number of regionally distributed institutions and homes for accommodation and care of senior citizens (especially of ill ones) - Ensured conditions for dignified third age in Montenegro

2.1.7	Support articulation of citizens' interests through NGO and informal groups' actions SDG 16 (16.7 and 16.10)	2.1.7.1	Develop institutional framework for the inclusion of non-governmental organizations and informal groups of citizens into political decision-making processes at state and local levels, SDG 16 (16.7).	SDG 17.17.1 Amount of allocated funds committed to public-private and civil society partnerships NID09 Number of contributions made by non-governmental organizations during public consultations about draft regulations and strategies at annual level.	- Montenegro is a developed participatory society where citizens' interests are bottom-up articulated - Increased number of contributions made by non-governmental organizations during public consultations about draft regulations and strategies at annual level - Increased number of volunteering citizens - Youth involved, motivated, proactive in policy making and implementation thereof - Information of public importance is transparent and easily accessible to citizens
		2.1.7.2	Stimulate participation of citizens, especially youth, through non-governmental organizations and informal groups in public policies decision-making at state and local levels.		
		2.1.7.3	Ensure support to youth and other social groups in terms of provision of knowledge, skills and tailoring of strategic and other documents to needs of their active participation in decision-making processes.		
		2.1.7.4	Stimulate participation of citizens in monitoring of implementation of public policies at state and local levels.		
		2.1.7.5	Encourage civic activism through development and support to voluntarism and improve relevant legislative framework for voluntarism.		
		2.1.7.6	Encourage civic activism through educational system and teach young generations to values of participative society.		
		2.1.7.7	Strengthen legal and institutional assumptions for greater financial sustainability of civil society organizations.		
		2.1.7.8	Ensure undisturbed and efficient approach to information of public importance, SDG 16 (16.10).		

THEMATIC AREA		2. SOCIAL RESOURCES - SUPPORT TO VALUES, NORM AND BEHAVIOR PATTERNS	
STRATEGIC GOAL		2.2 DEVELOP A SYSTEM OF VALUES IN ACCORDANCE WITH THE COMMUNITY SUSTAINABLE DEVELOPMENT GOALS	
INSTITUTIONS RESPONSIBLE		Leading institution/s: Ministry of Culture, Ministry of Human and Minority Rights, Ministry of Education Institutions involved in implementation: Ministry of Justice	
MEASURES	SUB-MEASURES	INDICATORS	TARGET TO BE ACHIEVED BY 2030
2.2.1 Develop multi-ethnic civil society with high level of mutual trust and tolerance SDG 10 (10.3) and SDG 16 (16.6)	2.2.1.1 Affirm Montenegrin civil identity through tolerable ethno-cultural differences governance, promotion and strengthening of common political identity, SDG 16, 10 (10.3). 2.2.1.2 Affirm identity of Montenegro through maintenance of harmonized relation between humans and nature. 2.2.1.3 Strengthen the feeling of trust, solidarity and common political identity in situation of expressive multi-culture, SDG 16. 2.2.1.4 Eliminate the existing identity "block" division SDG 16 (16.6). 2.2.1.5 Incorporate principles of Montenegrin civil identity development into educational system at all levels, SDG 16. 2.2.1.6 Reduce ethnical distance between members of different ethno-cultural communities, SDG 16.	- NID51MK Degree of tolerance in society towards people of different cultural origins - NID38MLJMP Level of ethnic distance in Montenegro	- Montenegrin political identity built on bases of civil multi-ethnic society with high degree of tolerance to differences - Montenegro is ecological state where people live in harmony with nature
2.2.2 Stimulate social solidarity SDG 16 (16.6)	2.2.2.1 Encourage and develop individual and corporative philanthropy in Montenegro. 2.2.2.2 Through educational system develop a feeling of social solidarity at Montenegrin and global level. 2.2.2.3 Stimulate the achievement of balance between the interest of community and individuals. 2.2.2.4 Promote and stimulate actions directed on subsidiary problem solving of individuals and community through solidary social interventions.	- NID52 MK Degree of interpersonal trust	- The principle of solidarity is a part of basic social consensus - Growing number of philanthropy active companies in Montenegro - Increased number of citizens and companies allocating funds for general welfare
2.2.3 Strengthen meritocracy and responsibility as the main principles of social functioning SDG 16 (16.6)	2.2.3.1 Stimulate meritocracy and responsibility as a principle in all spheres of public life. 2.2.3.2 Through educational system promote values of personal responsibility. 2.2.3.3 Incorporate transparency principle in all spheres of public life, SDG 16 (16.6).		- Society in which individual contribution is respected and promotion is based on merits - Strengthened stated administration based on education, knowledge and skills

THEMATIC AREA	2. SOCIAL RESOURCES - SUPPORT TO VALUES, NORM AND BEHAVIOR PATTERNS
STRATEGIC GOAL	2.3 DEVELOP THE STATE AS AN EFFICIENT RULE OF LAW

INSTITUTIONS RESPONSIBLE

Leading institution/s: Deputy Prime Minister Office for Political System

Institutions involved in implementation: Ministry of Justice, Ministry of Interior, Ministry of Finance

MEASURES	SUB-MEASURES	INDICATORS	TARGET TO BE ACHIEVED BY 2030
2.3.1 Strengthen citizens' trust in democratic political system and institutions thereof SDG 16 (16.6, 16.a)	2.3.1.1 Strengthen support to democratic type of political system.	SDG 16.6.2 Proportion of the population satisfied with their last experience of public services SDG 16.10.2 Number of countries that adopt and implement constitutional, statutory and/or policy guarantees for public access to information SDG 16.a.1 Existence of independent national human rights institutions in compliance with the Paris Principles MIWB23 Government efficiency	- High level of political system institutions legitimacy - Citizens trust the political system institutions
	2.3.1.2 Increase citizens' trust in system institutions regardless of dominant identity and political differences.		
	2.3.1.3 Strengthen administrative capacities, quality of work and integrity of political system institutions, SDG 16 (16.6, 16.a).		
	2.3.1.4 Create procedural social consensus.		
2.3.2 Ensure conditions for eradication of corruption, organized crime, crime and terrorism SDG 8 (8.7), SDG 16 (16.1, 16.3, 16.4, 16.5, 16.6, 16.7, 16.10 and 16.a)	2.3.2.1 Significantly reduce all forms of violence and related mortality rates, SDG 16 (16.1).	SDG 16.5.1 Proportion of persons who had at least one contact with a public official and who paid a bribe to a public official, or were asked for a bribe by those public officials, during the previous 12 months SDG 16.5.2 Proportion of businesses that had at least one contact with a public official and that paid a bribe to a public official, or were asked for a bribe by those public officials during the previous 12 months SDG 16.1.3 Proportion of population subjected to physical, psychological or sexual violence in the previous 12 months SDG 16.1.4 Proportion of population that feel safe walking alone around the area they live SDG 16.2.2 Number of victims of human trafficking per 100,000 population, by sex, age and form of exploitation SDG 16.2.3 Proportion of young women and men aged 18-29 years who experienced sexual violence by age 18 SDG 16.3.1 Proportion of victims of violence in the previous 12 months who reported their victimization to competent authorities or other officially recognized conflict resolution mechanisms SDG 16.3.2 Unsensitized detainees as a proportion of overall prison population SDG 16.4.1 Total value of inward and outward illicit financial flows (in current United States dollars) SDG 16.4.2 Proportion of seized small arms and light weapons that are recorded and traced, in accordance with international standards and legal instruments SDG 16.10.1 Number of verified cases of killing, kidnapping, enforced disappearance, arbitrary detention and torture of journalists, associated media personnel, trade unionists and human rights advocates in the previous 12 months NID53 MK Printed, electronic and internet media freedom index	- Montenegro is a society with an efficient system and recognizable results in combat against corruption and organized crime, tending to eliminate these threats to furthest possible extent - Significantly reduced mortality related to all forms of violence - Illegal money and weapons flows through Montenegro stopped - Ensured free access to information and protected rights of journalists and media freedom - Trafficking in human beings in Montenegro eliminated
	2.3.2.2 Promote rule of law at the national and international levels and ensure equal access to justice for all, SDG 16 (16.3).		
	2.3.2.3 Significantly reduce illegal money and weapons flows, improve asset recovery and suppress all forms of organized crime, SDG 16 (16.4).		
	2.3.2.4 Significantly reduce corruption and bribery in all their forms, SDG 16 (16.5).		
	2.3.2.5 Build effective, responsible and transparent institutions at all levels, SDG 16 (16.6).		
	2.3.2.6 Ensure public access to information and protect basic freedoms of journalists in compliance with international agreements, SDG 16 (16.10).		
	2.3.2.7 Strengthen institutions through international cooperation in combat against violence, terrorism and crime, SDG 16 (16.a).		
	2.3.2.8 Increase work efficiency, strengthening of integrity, accountability and transparency in public sector, SDG 16 (16.3, 16.5, 16.6, 16.7).		
	2.3.2.9 Eliminate trafficking in human beings in Montenegro, SDG 8 (8.7).		

THEMATIC AREA	2. SOCIAL RESOURCES - SUPPORT TO VALUES, NORM AND BEHAVIOR PATTERNS
STRATEGIC GOAL	2.4 OVERCOME THE MANAGERIAL DEFICIT PROBLEM AND STRENGTHEN SOCIALLY RESPONSIBLE BUSINESS

INSTITUTIONS RESPONSIBLE	Leading institution/s: Ministry of Economy Institutions involved in implementation: Ministry of Science, Directorate for Development of SME, Investment and Development Fund, Chamber of Economy, Employers' Union

MEASURES	SUB-MEASURES	INDICATORS	TARGET TO BE ACHIEVED BY 2030
2.4.1 Increase innovative and entrepreneurship potentials of economy, SDG 8 (8.3)	2.4.1.1 Promote development-oriented policies supporting productive activities, entrepreneurship, creativity and innovations, SDG 8 (8.3).	- NIE 66MN Number of excellence centers in MNE and number of applications in international cooperation programs in the area of research and development - NIE67 Number of initiated lifelong learning programs for increase of innovative potentials and education of managers	- Created development and innovative policy at the national level and new programs for the promotion of innovations
	2.4.1.2 Reduce managerial deficit by investing into education of managers through academic programs and long life learning programs.		- Established first Scientific-Technological Park (STP) within the University of Montenegro campus, with participation of all Montenegrin universities and high-education institutions (with growing number of STP members, both from high-education institutions and from companies; growing number of employees in STP);
	2.4.1.3 Develop entrepreneurship competences as an inseparable part of formal and informal education among pupils and students and raise awareness about entrepreneurship and development of entrepreneurship spirit at all levels of education.		- Innovation- entrepreneurship centre "Tehnopolis";
	2.4.1.4 Strengthen support programs to increase innovative potentials of companies through state institutions programs (Investment and Development Fund, Directorate for Development of SME).		- Strengthened position of the existing and created new scientific-technological parks and/or incubators
	2.4.1.5 Strengthen the connection between universities and economy through scientific-technological parks and business incubators which will influence the increase of innovative potentials and change organizational structure of the company (reference measure 1.3.3.4).		- Increased number of excellence centers in Montenegro and of applications in international cooperation programs in the area of research and development
			- Established national reference laboratories for the areas of environmental protection and human health and included into the system of scientific-research institutions (SRI)
			- Entrepreneurship developed as a key competence among pupils and students, thus improving studying outcomes and future employment

THEMATIC AREA		2. SOCIAL RESOURCES - SUPPORT TO VALUES, NORM AND BEHAVIOR PATTERNS			
STRATEGIC GOAL		2.5 STIMULATE EMPLOYABILITY AND SOCIAL INCLUSION			
INSTITUTIONS RESPONSIBLE		Leading institution/s: Ministry of Labor and Social Welfare Institutions involved in implementation: Ministry of Health, Ministry of Economy, Ministry of Sustainable Development and Tourism, Ministry of Agriculture and Rural Development			
MEASURES		SUB-MEASURES		INDICATORS	TARGET TO BE ACHIEVED BY 2030
2.5.1	Realize assumptions for sustainable and equal economic development, which will reduce the rate of economically vulnerable population SDG 1 (1.3, 1.5) and SDG 8 (8.1, 8.2)	2.5.1.1	Encourage creation of stable macroeconomic ambience for dynamic and sustainable growth, SDG 8 (8.1, 8.2).	- MIWEF33 Global Competitiveness Index - NIE 10MF GDP/pc in parity of purchase power (EU=100) - NID 19 MONTSTAT MDG 1.4.1 Unemployment rate by sex (LFS) - NID20 MONTSTAT MDG 1.4.2 Long unemployment rate (LFS) - NIE014 Employment rate (LFS) - NIE 02 MRSS Proportion of informal labor (research)	- Sustainable, inclusive and stable economic growth, full and productive employment under decent working conditions - Increased employment rate - Reduced rate of registered unemployment and proportion of informal labor - Reduced poverty rate and inequality index
		2.5.1.2	Promote development-oriented policies supporting productive activities, creation of dignified jobs, entrepreneurship, creativity and innovations and supporting formalization and growth of micro, small and medium enterprises through <i>inter alia</i> access to financial services.	- NID 21 MONTSTAT MDG 1.1.1 Poverty rate, - NID 22 MONTSTAT MDG 1.1.2 Poverty gap, - NID 23 MDG 1.1.3 Poverty severity, - NID 24 MDG 1.2.1 Gini coefficient - NID 25 MONTSTAT MDG 1.2.2 Poorest quintile proportions (proportion of average consumption of 20% wealthiest and 20% poorest population),	
		2.5.1.3	Work on the prevention of new poverty due to economic changes, SDG1 (1.3, 1.5).		
		2.5.1.4	Continually work on structural reforms of labor market in order to: increase flexibility and mobility of labor market, eliminate misuses n social protection system so as to create additional funds to encourage new employment through reform of legislation, employment and social policies, SDG 8 (8.1, 8.2).		
2.5.2	Ensure social stability and reduce poverty rate SDG 1 (1.1, 1.2, 1.3, 1.4, 1.a and 1.b), SDG 2 (2.1, 2.2), SDG 4 (4.4), SDG 8 (8.5, 8.6 , 8.8, 8.b) and SDG 10 (10.1, 10.3, 10.4), SDG 16 (16.3)	2.5.2.1	Achieve full and productive employment and dignified jobs for all women and men, including young and disabled persons, and equal salary for the same value work, SDG 8 (8.5).	- SDG 2.1.1 Prevalence of undernourishment - SDG 2.1.2 Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)	- Extreme poverty eradicated - Reduced unemployment rate of youth - Reduced degree of injuries at work - Developed measures for active policy of employment and professional training - Phased out advantage of social aid in comparison to formalization of job - Significantly reduced informal economy and informal labor - Tax policies in function of creation of prerequisites for creation of new jobs and gradual formalization - Eliminated undernourishment and hunger and ensured access to nutritive food - Healthcare and social protection available and efficient
		2.5.2.2	Significantly reduce proportion of young not covered by employment, education and training, SDG 8 (8.6).	- SDG 2.2.1 Prevalence of stunting (height for age <-2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age	
		2.5.2.3	Protect workers' rights and promote safe and secure working environment for all workers, including migrant workers/refugees, especially female migrants/refugees and persons with uncertain employment, SDG 8 (8.8).	- SDG 2.2.2 Prevalence of malnutrition (weight for height >+2 or <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight)	
		2.5.2.4	Improve measures for active policy of employment and enabling of professional trainings, SDG 1 (1.4).	- SDG 1.1.1 Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural) - SDG 1.2.1 Proportion of population living below the national poverty line, by sex and age	
		2.5.2.5	Encourage entrepreneurship and self-employment. Encourage and develop new and flexible forms of unemployment of young (by simplifying procedures and creating encouraging and flexible mechanisms) such as social entrepreneurship, star-up, rural tourism, urban gardening, green jobs, creative industries, ICT services, online sale, etc. SDG 1.4, SDG 8 (8.b).	- SDG 1.2.2 Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions - SDG 1.a.1 Proportion of resources allocated by the government directly to poverty reduction programmes	
		2.5.2.6	Systematically fight for transition of informal labor into legal frames by combining educational, incentive and repressive measures which will not lead to deactivation of workplaces, but to their sustainable transition into formal sector, SDG 1 (1.3), 4 (4.4), 8 (8.3, 8.5, 8.8), 10 (10.3, 10.4) and 16 (16.3).	- SDG 8.3.1 Proportion of informal employment in non-agriculture employment, by sex - SDG 8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities - SDG 8.5.2 Unemployment rate, by sex, age and persons with disabilities	
		2.5.2.7	Eradicate extreme poverty of people, SDG 1 (1.1).		
		2.5.2.8	Reduce by at least half proportion of men, women and children living below the line of absolute poverty, SDG 1 (1.2).		
		2.5.2.9	End hunger and ensure access for all people, especially poor and vulnerable people, including infants, to safe, nutritive and sufficient food, SDG 2 (2.1).		

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		2.5.2.10 Eradicate all forms of undernourishment, SDG 2 (2.2). 2.5.2.11 Target socially vulnerable groups through efficient measures of social and other policies, SDG 1 (1.3, 1.b). 2.5.2.12 Improve accessibility, affordability and quality of social services. 2.5.2.13 Improve the system for allocation of social benefits and support programs intended for citizens who are in greatest need. 2.5.2.14 Provide support to psycho-social protection programs to population categories in danger of social exclusion. 2.5.2.15 Include gender sensitive dimension into strategic resolution of poverty problem, SDG1 (1.b). 2.5.2.16 Work on reduction of gap between the wealthiest and poorest ones, SDG 10 (10.1, 10.4). 2.5.2.17 Ensure universal availability and quality of health protection 2.5.2.18 Ensure that all men and women, especially poor and vulnerable ones, have equal rights to economic resources, as well as access to basic services, ownership and control of land and other forms of ownership, heritage, natural resources, adequate new technologies and financial services, including micro-financing, SDG 1 (1.4). 2.5.2.19 Enable significant mobilization of funds from different sources in order to ensure adequate funds for programs and policies to end poverty in all dimensions thereof, SDG 1 (1.a).	SDG 8.5.2 Unemployment rate, by sex, age and persons with disabilities SDG 8.8.1 Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status, especially female migrants and persons with uncertain employment SDG 8.8.2 Increase in national compliance of labor rights (freedom of association and collective bargaining) based on International Labor Organization (ILO) textual sources and national legislation, by sex and migrant status SDG 10.1.1 Growth rates of household expenditure or income per capita among the bottom 40 per cent of the population and the total population SDG 10.2.1 Proportion of people living below 50 per cent of median income, by age, sex and persons with disabilities SDG 10.7.1 Recruitment cost borne by employee as a proportion of yearly income earned in country of destination SDG 8.7.1 Proportion and number of children aged 5-17 years engaged in child labor, by sex and age NID19 MONTSTAT MDG 1.4.1 Unemployment rate in total and by sex according to the Labour Force Survey (LFS) NID20 MONTSTAT MDG 1.4.1 Long unemployment rate according to Labour Force SurveyNIE01 MONTSTAT Employment rate according to LFS NIE02 MRSS Proportion of informal labor (research) NID21 MONTSTAT MDG 1.1.1 Poverty rate, NID22 MONTSTAT MDG 1.1.2 Poverty gap, NID23 MONTSTAT MDG 1.1.3 Poverty severity, NID24 MONTSTAT MDG 1.2.1 Gini coefficient NID25 MONTSTAT MDG 1.2.2 Poorest quintile proportions (proportion of average consumption of 20% wealthiest and 20% poorest population), NID26 MRSS Number of juvenile beneficiaries of social protection, by sex NID27 MRSS Number of adult beneficiaries of social protection, by sex MIWB01 Percentage of population under the national poverty line	
2.5.3	Fight against social exclusion SDG 1 (1.3, 1.4, 1.b,) 8 (8.6, 8.7) 10 (10.2, 10.3), 11 (11.1, 11.2)	2.5.3.1 Efficiently apply the existing and create new programs focused on groups in risk of marginalization, SDG 1 (1.3, 1.4, 1.b), SDG 8 (8.7), SDG 10 (10.2, 10.3): taking into account economic growth (poor, unemployed, permanently unemployed, homeless, displaced persons, migrants, asylees, refugees, persons in risks of statelessness) taking into account family structure (single-member families, single parents, children without parental care, youngsters having grown as children without parental care, families with a lot of children) taking into account identity (national/ethnic/racial/ religious minorities, sexual and gender minorities) taking into account age (children, youth, elderly citizens, pensioners), including prohibition of child labor in all forms thereof taking into account criminal history (convicts and former convicts, persons with behavioral disorders, victims of crime, victims of trafficking or family violence) taking into account education (persons without education or with low educational degree) taking into account health status (mentally ill persons, persons infected with HIV/AIDS and Hepatitis C, persons with addition problems, persons with genetic or chronicle illnesses) taking into account disability or developmental disorders. 2.5.3.2 Establish and support shelter and emergency accommodation programs, SDG 11 (11.1, 11.2). 2.5.3.3 Improve housing standards for vulnerable groups and social housing.	SDG 1.3.1 Proportion of population covered by social protection floors/ systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work injury victims and the poor and the vulnerable SDG 1.b.1 Proportion of government recurrent and capital spending to sectors that disproportionately benefit women, the poor and vulnerable groups SDG 8.6.1 Proportion of youth (aged 15-24 years) not in education, employment or training SDG 8.b.1 Total government spending in social protection and employment programmes as a proportion of the national budgets and GDP SDG 10.4.1 Labor share of GDP, comprising wages and social protection transfers SDG 11.1.1 Proportion of urban population living in slums, informal settlements or inadequate housing SDG 11.2.1 Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities SDG 1.4.1 Proportion of population living in households with access to basic services SDG 4.5.1 Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflict affected, as data become available) for all education indicators on this list that can be disaggregated SDG 4.a.1 Proportion of schools with access to:(a) electricity; (b) the Internet for pedagogical purposes; (c) computers for pedagogical purposes; (d) adapted infrastructure and materials for students with disabilities; (e) basic drinking water; (f) singlesex basic sanitation facilities; and (g) basic handwashing facilities (as per the WASH indicator definitions) SDG 7.1.1 Proportion of population with access to electricity NID26 MRSS Number of juvenile beneficiaries of social protection, by sex NID27 MRSS Number of adult beneficiaries of social protection, by sex	Eliminated misuses in social protection system, thus creating additional budget for persons in need of social support Established efficient protection programs for groups in risk of marginalization Increased number of shelters and emergency accommodation programs in Montenegro Developed social housing mechanism

THEMATIC AREA	2. SOCIAL RESOURCES - SUPPORT TO VALUES, NORM AND BEHAVIOR PATTERNS OF IMPORTANCE FOR THE SOCIETY SUSTAINABILITY
STRATEGIC GOAL	2.6 IMPROVE THE IMPORTANCE OF CULTURE AS A FUNDAMENTAL VALUE OF SPIRITUAL, SOCIAL AND ECONOMIC DEVELOPMENT WHICH SIGNIFICANTLY IMPROVE CITIZENS' LIFE QUALITY

INSTITUTIONS RESPONSIBLE

Leading institution/s: Ministry of Culture

Institutions involved in implementation: Local centers for culture, public institutions dealing with culture, informal cultural players, non-governmental organizations

MEASURES	SUB-MEASURES	INDICATORS	TARGET TO BE ACHIEVED BY 2030
2.6.1 Strengthen capacities of cultural institutions at all levels and establish a sustainable financing system SDG 4, (4.7), SDG 8 (8.9) and SDG 11 (11.4)	2.6.1.1 Increase the level of competence in institutions of culture in all segments of culture and at all levels (local, national), SDG 11 (11.4), SDG 4 (4.7). 2.6.1.2 Improve spatial conditions, status of facilities and their technical-technological equipping, SDG 4 (4.7). 2.6.1.3 Ensure equal regional distribution and representation of cultural contents and decentralization of managerial structures, SDG 11 (11.4) 4, (4.7). 2.6.1.4 Establish a system of efficient, rational and creative management and transparent work in culture, SDG 11 (11.4). 2.6.1.5 Promote cultural tourism as one of most important branches of tourism, SDG 11 (11.4), 8 (8.9).	- NID40 MK Proportion of contribution of private and formal cultural activities to gross domestic product - NID41 MK Percentage of persons dealing with occupations related to culture in total employment - NID46 MK Framework development index for setting the standards for the protection and promotion of culture, cultural rights and cultural diversity - NID61 MK Number of staff in institutions responsible for the protection of cultural heritage and landscape - NID 62MK Multidimensional framework development index for sustainability of heritage	- Created sustainable and efficient institutional model in the sector of culture - Conditions for work and protection of cultural heritage are at high level and achieve European standards and good practice in this area - Protection of cultural heritage, especially the one listed in the world cultural heritage list is conserved and properly valorized - Sustainable tourism is the main form of tourism developed by Montenegro with specific emphasis on cultural and eco tourism - Increased contribution to informal and formal cultural activities to gross domestic product
2.6.2 Establish a modern, efficient system for creating and presenting cultural activity, as well as status of artists and authors in the society, at the same time expanding and educating the audience SDG 8 (8.9) and SDG 11 (11.4)	2.6.2.1 Establish databases about all cultural players in Montenegro /formal and informal/, SDG 11(11.4) and 8 (8.9). 2.6.2.2 Improve social status of artists and authors, SDG 11 (11.4). 2.6.2.3 Promote the establishment and acting of vocational associations of artists and authors 2.6.2.4 Ensure full respect of copyrights, SDG 11 (11.4). 2.6.2.5 Create harmonized programs of cultural manifestations so as to improve cultural offer and create synergy, SDG 11 (11.4) and 8 (8.9). 2.6.2.6 Promote Montenegro as authentic filming destination, SDG 11 (11.4) and 8 (8.9). 2.6.2.7 Establish modern and well-equipped networks of space for presenting and performing cultural creativity such as cinemas, galleries, stages, squares, and other potential spaces, SDG 11 (11.4) and 8 (8.9). 2.6.2.8 Encourage domestic cinematography through provision of adequate means, legal framework and working conditions, SDG 11 (11.4). 2.6.2.9 Promote publishing through the improvement of legal framework, encouraging author writing and quality thereof through systemic actions, primarily through education, improvement of translation practice, etc, SDG 11 (11.4) i 8 (8.9). 2.6.2.10 Improve the conditions for musical and musical performing activity through creation of modern musical scene by providing space for work, increasing professional staff, establishing mechanisms for continual encouraging of modern musical creativity and strengthening vocational associations. SDG 11 (11.4)	- NID42 MK Proportion of final costs per household spent on cultural activities, goods or services in total household costs - NID47 MK Development index for political and institutional frameworks for the protection and promotion of culture, cultural rights and cultural diversity - NID48 MK Distribution of selected infrastructure for culture compared to distribution of the country population in administrative sections immediately below the state level - NID50 MK Proportion of population which participated in at least one cultural event over the past 12 months	- Spaces where cultural activities are presented meet all needs in terms of necessary infrastructure and technical equipping - Integrity and status of artists and their rights significantly improved - everyday life of Montenegrin citizens which improves their life quality - Citizens spend ever more funds for culture compared to total household costs - Activities of formal and informal authors in the area of culture increased - Montenegro is recognized as authentic cultural destination with economic benefits gained from increased quality and scope of cultural production.

		2.6.2.11 Strengthen the sector of visual art through encouraging of modern forms in works but also through use of modern media, ensuring conditions for dealing with visual art, adequate promotion of works, as well as permanent education of wide public about modern artistic practices, SDG 11 (11.4) and 8 (8.9). 2.6.2.12 Promote theatre by improving the status of buildings and their technical-technological equipping so as to respond to modern theatre standards, employing enough professional staff, encouraging independent productions and self-standing author productions. 2.6.2.13 Establish a system of measures and activities which will properly adjust Montenegrin culture and connect it with regional and European cultural space, SDG 11 (11.4) and 8 (8.9). 2.6.2.14 Implement programs to increase audience which consumes cultural contents and educate it for classic forms and programs, as well as for most modern and alternative ones, SDG 11 (11.4) and 8 (8.9).		
2.6.3	Strengthen informal, amateur, alternative, modern cultural practices, as well as cultural industries in Montenegro SDG 11 (11.4), SDG 8 (8.9) and SDG 4 (4.7)	2.6.3.1 Encourage amateurism in cultural-artistic creativity through establishment of associations of amateurs, SDG 11 (11.4) and 4 (4.7). 2.6.3.2 Increase the number of informal cultural subjects' projects, SDG 11 (11.4), 8 (8.9) and 4 (4.7). 2.6.3.3 Encourage programs for urban regeneration through creative practices - creative cities by encouraging creative industries, SDG 11 (11.4) and 8 (8.9). 2.6.3.4 Encourage the development of artistic subjects through educational system as a form of development of individuality and creativity among children, SDG 11 (11.4) and 4 (4.7).	- SDG 11.7.1 Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities	- Significantly higher proportion of informal cultural contents in total cultural offer - Cultural activity is becoming more visible in public spaces, thus improving them
2.6.4	Encourage cultural diversity by strengthening cultural activities of marginalized groups such as youth, elderly, women, LGBT persons, persons with disabilities etc, and ensure tolerance in this cultural segment SDG 4 (4.7) and SDG 11(11.4)	2.6.4.1 Strengthen and encourage culture of youth by providing spaces for acting of affirmative and incentive measures, especially at local level, SDG 4 (4.7) and 11(11.4). 2.6.4.2 Ensure conditions for active participation of women in culture and creation of own identity with the aim to improve gender quality through culture, SDG 4 (4.7) and 11(11.4). 2.6.4.3 Ensure conditions for active participation of elderly citizens in culture and creation of own identity, SDG 4 (4.7) and 11(11.4). 2.6.4.4 Ensure conditions for persons with disabilities to express their creative, artistic and intellectual potentials in the areas of culture, and enable access to all cultural manifestations for them, SDG 4 (4.7) and 11(11.4). 2.6.4.5 Create open ambience to encourage diversity, variety, creative experiments, promotion of new ideas and opinions, building new cultural platforms to affirm values of free society, constitutional values, European identity of Montenegro, but also greater visibility of human rights and rights of LGBT population (film festivals about human rights, queer festivals and so on), SDG 4 (4.7) and 11(11.4).	- NID49 MK Promotion index of participation of cultural workers and minorities in the creation and implementation of cultural policies, measures and programs pertaining to them	- Open, tolerable, anti-discriminative ambience for the creation of all forms of cultural expressions and diversity of cultural activists created

THEMATIC AREA	2. SOCIAL RESOURCES - SUPPORT TO VALUES, NORM AND BEHAVIOR PATTERNS OF IMPORTANCE FOR THE SOCIETY SUSTAINABILITY
STRATEGIC GOAL	2.7 ESTABLISH AN EFFICIENT AND MODERN SYSTEM OF INTEGRATED PROTECTION, MANAGEMENT AND SUSTAINABLE USE OF CULTURAL HERITAGE AND LANDSCAPE

INSTITUTIONS RESPONSIBLE	Leading institution(s): Ministry of Culture Institutions involved in implementation: Directorate for the protection of cultural resources, Centre for conservation and archaeology of Montenegro, National Museum of Montenegro, Maritime Museum of Montenegro, other public and private museums and museums of religious communities, National Library of Montenegro “Đurđe Crnojević”, State Archive of Montenegro, Historic Archive of Montenegro, MASA, DASA, public municipal institutions, non-governmental organizations and all other stakeholders - legal and private entities, fulfilling conditions prescribed by the Law on the Protection of Cultural Resources

MEASURES	SUB-MEASURES	INDICATORS	TARGET TO BE ACHIEVED BY 2030
2.7.1 Promote an efficient system of the protection of cultural heritage at all levels SDG 4 (4.7), SDG 8 (8.9) and SDG 11 (11.4)	2.7.1.1 Promote the efficient system of the protection of cultural heritage which includes immovable, movable and non-tangible cultural heritage, with specific focus on cultural landscape which covers all listed segments, SDG 11 (11.4) and SDG 8 (8.9). 2.7.1.2 Draft and implement the Strategy of the Protection of Cultural Heritage of Montenegro, SDG 11 (11.4) and SDG 8 (8.9). 2.7.1.3 Improve legal and institutional system for the protection of cultural heritage, SDG 11 (11.4) and 8 (8.9). 2.7.1.4 Integrate the spatial planning and cultural resource system into a functional system, SDG 11 (11.4) and 8 (8.9). 2.7.1.5 Harmonize all relevant laws pertaining to cultural heritage, especially the Law on the Protection of Cultural Heritage and the Law on Landscaping and Building Construction, SDG 11 (11.4). 2.7.1.6 Integrate cultural heritage as a resource into sector and other development strategies, SDG 11 (11.4) and SDG 8 (8.9). 2.7.1.7 Establish and develop cross-seccotral connection and cooperation related to the protection of cultural heritage, SDG 11 (11.4). 2.7.1.8 Increase professional capacities in institutions for the protection of cultural heritage through education and additional education of the professional staff, SDG 11 (11.4), 8(8.9) and 4 (4.7). 2.7.1.9 Increase capacities of all stakeholders involved in the protection through different programs and trainings, SDG 11 (11.4) and SDG 4 (4.7). 2.7.1.10 Establish high educational institutions/curricula/departments/ sectors in the area of conservation, archaeology, museology, history of art, librarianship, and enable regular education of staff necessary for the protection of cultural heritage, SDG 11 (11.4) and SDG 4 (4.7).	- SDG 11.4.1 Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed and World Heritage Centre designation), level of government (national, regional and local/municipal), type of expenditure (operating expenditure/investment) and type of private funding (donations in kind, private non-profit sector and sponsorship) - NID54 MK Proportion of allocations from the state budget intended for the protection of cultural resources, including UNESCO sites	- Established quality protection system which is professional, efficient and based on best international methods and practices - Heritage recognized as a development resource - Established integrated system of protection and valorization of heritage which enables efficient and quality acting for the benefit of cultural heritage status - Educational system capacitated to educate optimal number and achieve equality of the professional staff who will deal with heritage protection - Rehabilitated and functionally adjusted larger number of facilities, especially of immovable cultural resources (fortifications). - Integrated domestic and foreign sources of investments into rehabilitation of fortifications, thus creating significant number of jobs

2.7.2	Promote the protection of cultural heritage at all levels SDG 11 (11.4) and SDG 8 (8.9)	2.7.2.1	Implement permanent systematic research and scientific research works in the entire area of cultural heritage, SDG 11 (11.4) and SDG 8 (8.9).		
		2.7.2.2	Establish a modern information system and documentation database for cultural resources and entire cultural heritage, which at the same time will be the basis for the status monitoring, SDG 11 (11.4) and SDG 8 (8.9).		
		2.7.2.3	Valorize and establish protection for the so far neglected segments of cultural heritage, such as 20th century architecture, rural architecture, industrial heritage, SDG 11 (11.4) and 8 (8.9).		
		2.7.2.4	Improve the system of protection and management of sites from the UNESCO list of the world cultural heritage, using all benefits of that status, SDG 11 (11.4) and SDDG 8 (8.9).		
		2.7.2.5	Improve conservation, restoration and other conservation measures on cultural resources, relying on most modern approaches and internationally accepted principles and practice	NID55MK Number of all protected cultural resources	Extended list of protected facilities and increased level of the protection quality and care through modernization, more efficient procedures and strengthening of professional databases and so on Institutions have built their capacities to the optimal level and are equipped with most modern equipment
		2.7.2.6	Enable application of studies of the protection of cultural heritage, not only of studies for the protection of cultural resources, as a basis for spatial and urban plans, SDG 11(11.4).	NID56MK Number of protected cultural resources from 20th century	
		2.7.2.7	Ensure modern spaces and equipment for accommodation, protection and presentation of museum materials, archive and library resources, SDG 11 (11.4).	NID57MK Number of protected cultural resources presenting examples of rural architecture	
		2.7.2.8	Improve maintenance of cultural resources by introducing maintenance plans and programs	NID58 MK Number of protected industrial facilities as cultural resources	
		2.7.2.9	Ensure conservation of traditional techniques and crafts, SDG 11 (11.4) and 8 (8.9).	NID59 MK Number of protected cultural landscapes	
		2.7.2.10	Draft and implement programs for rehabilitation of devastated cultural resources and landscapes	NID60 MK Number of protected non-tangible heritage	
		2.7.2.11	Ensure adequate and modern presentation and interpretation of cultural heritage, using new technologies, SDG 11 (11.4) and SDG 8 (8.9).		
		2.7.2.12	Enable accessibility to cultural heritage to all, SDG 11 (11.4) and SDG 8 (8.9)		
		2.7.2.13	Establish a system for the protection, use and management of cultural heritage based on participation, and involvement of all stakeholders from the state, private and civil sectors.		
		2.7.2.14	Include the theme of cultural heritage into the educational system to greater extent, SDG 11 (11.4) and SDG 8 (8.9).		
		2.7.2.15	Raise awareness about values and importance of cultural heritage and creation of ambience for understanding the role and place of culture as an important resource and drive for sustainable development, SDG 11 (11.4) and 8 (8.9).		
2.7.3	Promote the sustainable use and management of cultural heritage SDG 11 (11.4) and SDG 8 (8.3 i 8.9)	2.7.3.1	Establish sustainable use of cultural heritage as potential for cultural, social and economic development, SDG 11 (11.4) and 8 (8.9).		Heritage has become a drive for development, not burden or barrier with optimal budget funds intended for the protection and revitalization of heritage Heritage and its potentials are used as a drive for entrepreneurship development
		2.7.3.2	Establish sustainable use of cultural heritage through development of different activities, cultural tourism and other forms of sustainable tourism, agriculture, crafts and arts, creative industries SDG 11 (11.4) and SDG 8 (8.9).	NID61 MK Number of staff in institutions responsible for the protection of cultural heritage and landscape	
		2.7.3.3	Establish an efficient modern management system pertaining to cultural heritage SDG 11 (11.4) and SDG 8 (8.9).	NID62 MK Multi-dimensional framework development index related to heritage sustainability	
		2.7.3.4	Develop sustainable systems for the cultural heritage management through involvement of all stakeholders into the management process and drafting and implementation of management plans, SDG 11 (11.4) and SDG 8 (8.9).	NID54 MK Proportion of allocations from the state budget intended for the protection of cultural resources including UNESCO sites	
		2.7.3.5	Establish a sustainable financing system for the protection of cultural resources by allocating budget funds, earmarked fees, project financing, revenues collected through valorization of cultural resources and so on, SDG 11 (11.4) and SDG 8 (8.9).		
		2.7.3.6	Encourage entrepreneurship based on cultural heritage, SDG 11 (11.4) and SDG 8 (8.9) i SDG 8(8.3).		

THEMATIC AREA	2. SOCIAL RESOURCES - SUPPORT TO VALUES, NORM AND BEHAVIOR PATTERNS OF IMPORTANCE FOR THE SOCIETY SUSTAINABILITY
STRATEGIC GOAL	2.8 ACHIEVE EQUAL SOCIO-ECONOMIC DEVELOPMENT IN ALL LOCAL SELF-GOVERNMENT UNITS AND REGIONS BASED ON COMPETITIVENESS, INNOVATIONS AND EMPLOYMENT, WITH SPECIFIC EMPHASIS ON THE DEVELOPMENT OF NORTHERN REGION

INSTITUTIONS RESPONSIBLE	Leading institution(s): Ministry of Economy Institutions involved in implementation: Local self-governments, association of municipalities, NGO sector, Ministry of Finance, Ministry of Agriculture and Rural Development, Ministry of Sustainable Development and Tourism, Secretariat for development projects

MEASURES	SUB-MEASURES	INDICATORS	TARGET TO BE ACHIEVED BY 2030
2.8.1 Improve traffic and other infrastructure as a prerequisite for the development of regions in Montenegro SDG 9 (9.1)	2.8.1.1	- SDG 9.a.1 Total official international support (official development assistance plus other official flows) to infrastructure - NID63 MK Municipality development index - NID64 MK Competitiveness index for municipalities	- All three regions in Montenegro connected with modern and safe infrastructure - Northern region has necessary infrastructure which is a prerequisite for development and pleasant place for living and working
	2.8.1.2		
	2.8.1.3		
	2.8.1.4		
2.8.2 Establish a favorable social and socio-economic ambience so as to prevent further negative demographic trends in the north of Montenegro SDG 8 (8.3) and SDG 10 (10.2, 10.c)	2.8.2.1	- SDG 2.4.1 Proportion of agricultural area under productive and sustainable agriculture - SDG 14.2.1 Proportion of national exclusive economic zones managed using ecosystem-based approaches - SDG 17.3.2 Volume of remittances (in United States dollars) as a proportion of total GDP - SDG 10.c.1 Remittance costs as a proportion of the amount remitted - NID28 MONSTAT, MDG 1.3.1 Poverty rate in the northern region - NID29 MONSTAT MDG 1.3.2 Poverty rate in rural areas - NIE58 ME Number of formed clusters in Montenegro and annual growth rate (number of new clusters) - NIE30 ME Number of national, local and touristic business zones - NIE43 ME Amount of funds for the support to implementation of rural development projects - NID30 MVPEI Total value of projects financed from EU funds for local and rural development - NID65 IRF Total value of projects approved by IRF for the northern region - NIE49 MPRR Number of certified agricultural and food products (certified quality system; food safety; origin labels; geographic labels; labels of guaranteed traditional specialties)	- Established economic, social and territorial cohesion and reduced differences in the development level of Montenegrin municipalities - Through business zones and clusters increased employment and economic activity in the north of the country - Increased participation of agriculture in gross added value and employment - Slowed down migration trend from the north to central and coastal regions of Montenegro - Increased agricultural export and export of foodstuff, as well as their competitiveness on the regional markets
	2.8.2.2		
	2.8.2.3		
	2.8.2.4		
	2.8.2.5		
	2.8.2.6		
	2.8.2.7		
	2.8.2.8		
	2.8.2.9		
	2.8.2.10		
	2.8.2.11		

NATURAL RESOURCES

THEMATIC AREA

STRATEGIC GOAL

3. NATURAL RESOURCES - CONSERVATION OF NATURAL CAPITAL

3.1 STOP DEGRADATION OF VALUES OF RENEWABLE ENERGY SOURCES: BIODIVERSITY, WATER, SEA, AIR, SOIL

Leading institution(s): Ministry of Sustainable Development and Tourism, Ministry of Agriculture and Rural Development

INSTITUTIONS RESPONSIBLE

Institutions involved in implementation: Ministry of Finance, Environmental Protection Agency, Directorate for Forests, PE National Parks, Regional Park Piva, Institute for Hydrometeorology and Seismology, CETI d.o.o, Public Enterprise for Coastal Zone Management, Institute for Sea Biology, Biotechnical Faculty and Geological Survey of Montenegro, Directorate for Inspection, local self-governments

MEASURES	SUB-MEASURES	INDICATORS	TARGET TO BE ACHIEVED BY 2030
3.1.1 Enable efficient protection of protected areas of nature, ecologically valuable habitats, forest, water and coastal ecosystems, protected species of flora and fauna, air and soil SDG 3 (3.9), SDG 6 (6.2,6.3, 6.6), SDG 9 (9.4), SDG 11 (11.4, 11.6), SDG 13 (13.1), SDG 15 (15.1, 15.2, 15.3, 15.4, 15.5, 15.7, 15.8, 15.9, 15.a, 15.c) Paragraph: 33	3.1.1.1	Improve regulations in the area of: nature and biodiversity protection to comply the EU Acquis, in accordance with priorities set forth in strategic documents as a part of the EU accession of Montenegro, primarily with regard to matters pertaining to: protection of species of wild flora and fauna, control the import of wild flora and fauna species, invasive alien species, as well as care for temporary seized specimens of plants and animals in adequate conditions, animal welfare, duration of hunting season and game species (e.g. the Law on Hunting and Game with requirements of the EU Directive 2013/17/EU), SDG 15 (15.1,15.5,15.7) water - fully harmonize the Law on Waters with the requirements of the Water Framework Directive (2000/60/EC) and Urban Waste Water Treatment Directive (91/271/EEC), with related bylaws within deadlines set in the EU Accession Plan of Montenegro; adopt the Law on Urban Waste Water Treatment with related bylaws within deadlines set in the EU Accession Plan of Montenegro thus enabling full transposition of the Urban Waste Water Directive (91/271/EU)- UWWWD (from the current 47%); adopt bylaw on agglomerations and draft agglomerations maps for which construction of waste water treatment plant is mandatory; adopt bylaw on sensitive areas and identify and map protected, sensitive and vulnerable areas, as well as areas of special water protection, SDG 6 (6.2, 6.3, 6.6).	In 2021 completed transposition of the EU environmental Acquis into the national legislation Number of species does not decline and is minimally maintained at the initially set values (EPA Report on biodiversity status 2013/2016). Number of special and protected species and density of population does not decline compared to figures from 2014-2015 (according to EPA data). By 2020 proportion of disturbed endangered habitats halved and fragmentation of key habitats halted, including forest ones (Aichi, task 5). in 2030 no loss of habitats with marked selected and protected species drafted Red Lists and Species Lists by 2020 in compliance with the National Biodiversity Strategy by 2020, Aichi indicators introduced into the monitoring system Achieved target values set by Aichi target indicators At five-year cross-checks growth is recorded in proportion of forests in land capacity (by measuring Ecological Footprint), so that forests and forest land participate with at least 75% in total land biocapacity By 2020 established monitoring of invasive alien species pathways and limited and/or eliminated impact of the most invasive ones (Aichi target 9). Number of forest fires continuously decreasing Values of NIP13-NIP17 indicators within limits set by the national regulations Degree of anthropogenic impact to surface water quality in 2020 is 10%. Values of NIP25-NIP32 indicators within limits set by the national regulations Values of NIP35-NIP42 indicators within limits set by the national regulations Projections of GHG emissions in compliance with INDC Level of GHG emissions by 2030 reduced by 30% compared to 1990 Anthropogenic GHG emissions amount to 5.7 t CO₂ eq/inhabitant in 2030 Minimal reduction of GHG emissions at annual level in total GHG emissions is 10% (4,715 kilotons) by 2021 Application of strategic and project environmental impact assessment, as well as appropriate assessment, in compliance with best available
	3.1.1.2	Prevent introduction and reduce impact of invasive non-autochthonic species to terrestrial and water ecosystems, and control and eradicate priority invasive alien species, SDG 15 (15.8, 15.c).	
	3.1.1.3	Stop poaching and trade in protected species of wild flora and fauna and introduce control instruments of demand and offer of illicit wildlife products, including the increase of local capacities in that respect, SDG (15.7, 15.c).	
	3.1.1.4	Significantly increase allocation at state and local levels for conservation and sustainable use of biodiversity and ecosystems, SDG 15 (15.a).	
	3.1.1.5	Apply best available practice and available cleaner and more innovative technologies to reduce significantly air, water and soil pollution, SDG 3 (3.9), SDG 6 (6.3), 9 (9.4).	
	3.1.1.6	Improve the control of air, water and soil pollution from impacts of industrial and transport emissions, paragraph 33.	

		3.1.1.7 As a priority implement activities directed on resolving the problem of air pollution, especially pollution with particulate matters from different sources (e.g. stationary sources - industry, energy and diffuse sources - transport and traffic), as well as on reducing GHG emissions, SDG 3 (3.9), 11(11.6). 3.1.1.8 Integrate principles, goals, measures and instruments of environmental protection with a specific focus on nature and biodiversity conservation, into sector policies and plans, SDG 15 (15.9). 3.1.1.9 Improve the application of, SDG15 (15.1, 15.9): strategic environmental impact assessment of spatial and development plans to protected areas of nature, ecologically valuable habitats and ecosystems (forest, water and coastal ones), environmental impact assessment of interventions in protected areas of nature of the national Ecological Network (EMERALD, IBA, IPA areas), especially those including natural habitats, forest and water ecosystems, and coastal ecosystems, appropriate assessment (knowledge and experience transfer, testing of application to sites of the future Ecological Network), ecosystem approach in economic activities planning, assessment and integration of ecosystem values and values of biological diversity in spatial-planning documents and development programs and plans at the national and local levels, previously listed instruments, best available practice and standards in exploration of oil and gas, including impact assessment of the off-shore activities to seismic stability, in compliance with relevant international regulations (e.g. Offshore Protocol to the Barcelona Convention). 3.1.1.10 Prevent endangerment and enable conservation and where necessary renewal of forest, freshwater, marine and coastal ecosystems, including mitigation of negative impacts of climate change and increased risks of droughts, floods, fire and biotic pests (especially with regard to climate change and impacts thereof to forests, which includes displacement of vegetation zones, reduction of growth, reduction of number of species, forest dying and more frequent forest fires), SDG 6 (6.6), SDG 13 (13.1), 15 (15.1, 15.2, 15.3, 15.4, 15.5).	- making progress in ratifying, accepting and implementing through legal, policy and institutional frameworks, ocean-related instruments that implement international law, as reflected in the United Nation Convention on the Law of the Sea (UNCLOS), for the conservation and sustainable use of the oceans and their resources - NIP16 MDG7.7 Degree of anthropogenic impact to surface water quality (%) - NIP17 V04, EPA Drinking water quality - SDG 6.1.1 Proportion of population using safely managed drinking water services - NIP18 V05, EPA Utilization of freshwater resources - SDG 6.4.1 Change in water-use efficiency over time - SDG 6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources - NIP25 M01, EPA Quality of marine bathing water - NIP26 -M02, EPA Chlorophyll in transitional, coastal and marine waters - NIP27 M03, EPA Nutrients in transitional, coastal and marine waters - SDG 14.1.1 Index of coastal eutrophication (ICEP) and floating plastic debris density - NIP28 M04, EPA Trophic index - SDG 14.1.1 Index of coastal eutrophication (ICEP) and floating plastic debris density - NIP29 M05, EPA Oxygen saturation level in transitional, coastal and marine waters - NIP30 M05, EPA Concentration of heavy metals in marine indicator species - SDG 14.3.1 Average marine acidity (pH) measured at agreed suite of representative sampling stations - NIP31 - MORT EcAp indicators upon the introduction into the national monitoring system by 2018 - NIP32 MORT MSFD indicators upon the introduction into the national monitoring system by 2019 - SDG 14.4.1 Proportion of fish stocks within biologically sustainable levels	- European practice - Recorded significant growth trend for program and project activities with development actions therein adjusted to the requirements of the environmental impact assessment - Established monitoring over implementation of measures prescribed for the environmental impact assessment and strategic impact assessment for the evaluated interventions - Established national reference laboratory for the monitoring of all environmental segments and impact of pollution to human health - Monitoring the indicators of good environmental status of the sea and indicators of ecosystem approach, the status of marine ecosystem evaluated as good - Ecosystem approach applied in planning of all development activities and integrated into development/sector plans and programs, and trend of positive environmental impacts recorded through monitoring of ecosystem approach indicator - Air, water and soil quality improved through reduced source emissions applying best available techniques and technologies, establishing regular monitoring of pollutant emissions by polluters - By 2018 established integrated monitoring and reporting program on the status of air, water, soil, sea and biodiversity in compliance with the requirements prescribed by the EU relevant regulations (transposed into the national legal system), EEA requirements, taking into account requirements from relevant multilateral agreements (e.g. Barcelona Convention). - Eliminated problems of competences and established a unique information system for the support to efficient environmental performance and natural resource status reporting
3.1.2	Promote monitoring of biodiversity, waters, sea, air and soil status SDG 2 (2.4), SDG 3 (3.9), SDG 6 (6.3, 6.5, 6.6), SDG 11 (11.6), SDG 12 (12.4), SDG 14 (14.c), SDG 15 (15.1, 15.3, 15.4, 15.5, 15.8, 15.9, 15.a, 15.c)	3.1.2.1 Improve data about biodiversity in accordance with the need to conserve biological diversity and efficient control of factors of threat to biodiversity: improving the monitoring of biodiversity status for the collection of data about the status of populations, habitats and species, availability and update of information and drafting the multi-annual program for the monitoring of biodiversity status based on prior inventory, including increase of budget allocations for the matter, SDG 15 (15.a), establishing the inventory of biodiversity status and biodiversity information system, SDG 15 (15.4, 15.5), drafting the expert bases (in GIS) for spatial planning about the distribution, status and values of habitats and species (habitat and species map), SDG 15 (15.9), drafting the Red List and Species List, SDG 15 (15.8, 15.c). 3.1.2.2 Improve data about the status of waters in accordance with needs of the integrated water resource management, improvement of the status and efficient control of surface and ground water pollution, SDG 3 (3.9), 6 (6.3, 6.5, 6.6) 12 (12.4), 15 (15.1, 15.8), including: pursuant to adopted bylaws, harmonized with the requirements of the EU Acquis and relevant UN multilateral agreements (e.g. the Convention on the Protection and Use of Transboundary Watercourses and International Lakes), define a monitoring and reporting program related to the status of aquatic ecosystems and increase budget allocation for the matter, significantly improve networks for the monitoring of surface and ground water quality, integrate the monitoring and reporting system about the status of aquatic ecosystems into the environmental monitoring system, establish integrated water resource management at all levels, inter alia, through cross-border cooperation 3.1.2.3 Improve data about the status of marine ecosystem, including the increase of budget allocations for the matter, SDG 14 (14.c): establishing the integrated monitoring and assessment of the marine ecosystem performance by applying ecosystem approach within the implementation of the Barcelona Convention	- making progress in ratifying, accepting and implementing through legal, policy and institutional frameworks, ocean-related instruments that implement international law, as reflected in the United Nation Convention on the Law of the Sea (UNCLOS), for the conservation and sustainable use of the oceans and their resources - NIP16 MDG7.7 Degree of anthropogenic impact to surface water quality (%) - NIP17 V04, EPA Drinking water quality - SDG 6.1.1 Proportion of population using safely managed drinking water services - NIP18 V05, EPA Utilization of freshwater resources - SDG 6.4.1 Change in water-use efficiency over time - SDG 6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources - NIP25 M01, EPA Quality of marine bathing water - NIP26 -M02, EPA Chlorophyll in transitional, coastal and marine waters - NIP27 M03, EPA Nutrients in transitional, coastal and marine waters - SDG 14.1.1 Index of coastal eutrophication (ICEP) and floating plastic debris density - NIP28 M04, EPA Trophic index - SDG 14.1.1 Index of coastal eutrophication (ICEP) and floating plastic debris density - NIP29 M05, EPA Oxygen saturation level in transitional, coastal and marine waters - NIP30 M05, EPA Concentration of heavy metals in marine indicator species - SDG 14.3.1 Average marine acidity (pH) measured at agreed suite of representative sampling stations - 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Air, water and soil quality improved through reduced source emissions applying best available techniques and technologies, establishing regular monitoring of pollutant emissions by polluters - By 2018 established integrated monitoring and reporting program on the status of air, water, soil, sea and biodiversity in compliance with the requirements prescribed by the EU relevant regulations (transposed into the national legal system), EEA requirements, taking into account requirements from relevant multilateral agreements (e.g. Barcelona Convention). - Eliminated problems of competences and established a unique information system for the support to efficient environmental performance and natural resource status reporting

	establishing the integrated monitoring and assessment of the marine ecosystem performance by applying ecosystem approach within the implementation of the Barcelona Convention transposition of the Marine Strategy Framework Directive 2008/56/EC. transposition of the Bathing Water Directive.	the introduction into the national monitoring system by 2019 SDG 14.4.1 Proportion of fish stocks within biologically sustainable levels NIP35 VA01, EPA Air quality in urban areas SDG 11.6.2 Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted) SDG 3.9.1 Mortality rate attributed to household and ambient air pollution NIP36 MDG 7.1.4 Number of measured concentrations of PM10 exceeding limit values and tolerance levels for the protection of human health in Podgorica, Pljevlja, Nikšić (coastal municipality) NIP37 VA02, EPA Acidification gases emissions NIP38 VA03, EPA Ozone precursor emissions NIP39 VA04, EPA Emissions of primary particulate matters and secondary particulate matters precursors NIP40 KP01, EPA Annual air temperatures NIP41 KP02, EPA Annual precipitations NIP42 KP03, EPA Consumption of ozone depleting substances NIP43 KP04, EPA GHG emissions trends, MDG 7.5 Anthropogenic GHG emissions expressed in [t CO2 eq/ inhabitant] NIP44 KP05, EPA Estimations of GHG emissions SDG 9.4.1 CO2 emission per unit of value added SDG 13.2.1 Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other) NIP33 Z01, EPA Land erosion NIP34 Z02, EPA Change in land use SDG 15.3.1 Proportion of land that is degraded over total land area SDG 13.2.1 Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other) SDG 13.3.1 Number of countries that have integrated mitigation, adaptation, impact reduction and early warning into primary, secondary and tertiary curricula SDG 13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions SDG 17.7.1 Total amount of approved funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies	
3.1.2.4	Improve data about air quality in accordance with the need to improve air quality and efficient air pollution control, SDG 3 (3.9), SDG 11 (11.6), continuously and comprehensively monitoring air quality along with determination of the cause and consequence connections between the pollution and efficiency of actions conducted by competent authorities, especially in terms of consistent application of regulations, increasing the number of measurement points for air quality monitoring, developing an air quality modeling system in order to reduce costs for real time data monitoring and increase coverage with data about air quality, implementing horizontal measures for air protection by integrating air quality policy into other sector policies.		
3.1.2.5	Improve data about the status of soil and enable efficient control of soil pollution so as to improve the status and prevent land degradation, SDG 2 (2.4), SDG 15 (15.3, 15.8): continuously and comprehensively monitoring the soil quality, increasing the number of measurement points for soil quality monitoring .		

THEMATIC AREA

3. NATURAL RESOURCES - CONSERVATION OF NATURAL CAPITAL

STRATEGIC GOAL

3.2 IMPROVE THE EFFICIENCY OF RENEWABLE NATURAL RESOURCE MANAGEMENT

INSTITUTIONS RESPONSIBLE

Leading institutions: Ministry of Sustainable Development and Tourism, Ministry of Agriculture and Rural Development

Institutions involved in implementation: Ministry of Finance, Environmental Protection Agency, Directorate for Waters, Directorate for Forests, Institute for Hydrometeorology and Seismology, Public enterprise for coastal zone management, Institute for Marine Biology, Biotechnical Faculty and Geological Survey, Directorate for Inspection, local self-governments, CETI d.o.o.

MEASURES	SUB-MEASURES	INDICATORS	TARGET TO BE ACHIEVED BY 2030
3.2.1 Identify values of ecologically valuable habitats and ecosystems and revise the status of the exiting protected areas of nature SDG 12 (12.2), 14 (14.2, 14.5), SDG 15 (15.1, 15.2, 15.4, 15.5, 15.9)	3.2.1.1 Map, valueate and determine the status (applying GIS) of protected areas of nature and ecologically valuable habitats and ecosystems proposed for protection, SDG 14 (14.2, 14.5), 15 (15.1, 15.4, 15.5).	- NIP04 Indicators in the frame of Aichi 3, 5, 9, 11, 12 tasks once introduced into the national monitoring system - NIP05 MDG 7.1.1 Proportion of areas protected for the reasons of biological diversity conservation (%) - NIP06 MDG 7.1.2 Proportion of marine ecosystems over total areas protected for the reason of biological diversity conservation (%) - NIP12 B07, EPA Protected areas - NIE27 T05, EPA, Number of visitors to national parks - SDG 15.1.2 Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type - SDG 15.3.1 Proportion of land that is degraded over total land area - SDG 15.4.1 Coverage by protected areas of important sites for mountain biodiversity - SDG 15.4.2 Mountain Green Cover Index - SDG 14.5.1 Coverage of protected areas in relation to marine areas - SDG 15.9.1 Progress towards national targets established in accordance with Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011-2020) - SDG 15.a.1 Official development assistance and public expenditure on conservation and sustainable use of biodiversity and ecosystems (and SDG 15.b.1)	- Pursuant to the National Biodiversity Strategy by 2020, Aichi indicators have been introduced into the monitoring system - Target values set by indicators defined in Aichi targets achieved - By 2020 proportion of disturbed endangered habitats has been halved and fragmentation of key habitats stopped, including forest habitats (Aichi target 5). - In 2030 no habitats with marked and selected protected species are lost. - In 2020 proportion of protected areas of nature in the coastal zone is at least 10% (Aichi target 11). - In 2020 proportion of protected areas of nature in the overall state surface (areas protected for the reason of biodiversity conservation in relation to total territory of Montenegro) is at least 17% (Aichi target 11) - By 2020 3 protected areas in the sea established, and by 2030 proportion of marine ecosystems over total area protected for the reason of biodiversity conservation in Montenegro is 10% and network of protected areas in the sea established - By 2020 at least one protected area in the sea has SPAMI status (requirement from the Barcelona Convention). - By 2020 ecological network established in Montenegro - All protected areas are managed by efficient management structures, with maximal reliance on capacities of (PE) National Parks and PE (Agency) for Coastal Zone Management, as well as wherever it turns out that there are necessary capacities with reliance on local self-government capacities - Application of appropriate assessment efficient - Representativeness of the protected areas system enabled - By 2020 typologization of Montenegrin landscapes conducted - By 2020 subsidies harmful for biodiversity eliminated, and those inciting conservation and sustainable use of biodiversity introduced (Aichi target 3)
	3.2.1.2 According to the found status: - revise the status of the existing natural resources, as well as assessment of the existing proposals on the establishment of potentially protected natural resources, SDG 12 (12.2), 14 (14.2, 14.5), 15 (15.1, 15.4) - determine borderlines of natural areas and priority habitats proposed for the protection, primarily by establishing ecological network NATURA 2000, SDG 14 (14.2, 14.5), 15 (15.1, 15.4) - determine priority new protected areas of nature to become subject of protection by 2020 in accordance with valid spatial-planning documents and requirements related to the establishment of the national ecological network and other relevant international standards through an open participative process, with participation of relevant stakeholders (national and local administration, state authorities, scientific and professional institutions, non-governmental organizations and civil society), SDG 12 (12.2), 14 (14.2, 14.5, 14.c), 15 (15.1, 15.2, 15.4, 15.5, 15.9).		
3.2.2 Build capacities for integrated management of protected areas of nature, ecologically valuable habitats and ecosystems SDG 12 (12.2), SDG 14 (14.1, 14.2, 14.5, 14.7, 14.a), SDG 15 (15.1, 15.2, 15.4, 15.5, 15.9), SDG 17 (17.4, 17.15)	3.2.2.1 Establish efficient administrative structure for the protected areas management, including: - drafting the study on protection and management plans, and provision of optimal financial means for the protected nature areas management in accordance with the biodiversity valuation and inventory results, appointment of protected areas managers, capacity building of managers - both technical and professional, SDG 12 (12.2), SDG 14 (14.2), SDG 15 (15.1, 15.4), SDG 16 (16.6, 16.b), SDG 17 (17.4) - application of optimal management practice, SDG 14 (14.2), SDG 15 (15.1, 15.4), SDG 16 (16.6), SDG 17 (17.15) - stop biodiversity value loss and ecosystem degradation, SDG 14 (14.2), SDG 15 (15.1, 15.2, 15.3, 15.4, 15.5) - implementation of remediation and restoration measures on sites with degraded habitats, SDG 14 (14.1), SDG 15 (15.1, 15.2, 15.5) - harmonization of development-investment plans with protected areas management plans, SDG 15 (15.9)		

		- improvement of legislation (the Law on Nature Protection, the Law on Public Maritime Domain) so as to enable integrated management of protected areas of nature, ecologically valuable habitats and areas of future national Ecological Network, including the collection of information and reporting on biodiversity status, SDG 14 (14.5, 14.a).		
		3.2.2.2 Improve the existing capacities for the protected natural resources management: - implementing the training program and training activities (in terms of obligations resulting from transposition of the Directive on Habitats 93/626/EEC, Bird Directive 2009/147/EC, Marine Strategy Framework Directive 2008/56/EC, establishing the national Ecological Network, integrated coastal zone management and planning the use of the sea in accordance with the EU Directive establishing a framework for maritime spatial planning 2014/89/EU, cooperation with UNEP /MAP and GFCM), organizing tertiary education curricula in the area of protected nature areas management so as to enable regular schooling for staff needed for the protected areas management, SDG 12 (12.2), - transferring knowledge in order to apply best available techniques, especially protected areas of nature in the sea (using experience gained in MEDPAN), SDG 17 (17.7).		
		3.2.2.3 Enable representativeness of the protected areas system so as to ensure representation of all valuable ecosystems (protected areas in the sea are missing, for example), SDG 14 (14.5).		
		3.2.2.4 Establish the ecological network to enable protection of valuable ecosystems outside the protected areas, SDG 15 (15.1).		
		3.2.2.5 Improve implementation of the European Landscape Convention through full harmonization of legislation in the area of spatial planning, protection of nature and cultural heritage with the convention requirements by adopting landscape policy and landscape typology to identify types of landscape in the territory of Montenegro, SDG 15 (15.1).		
3.2.3	Enable resource-efficient utilization of forest resources SDG 7 (7.a), SDG 8 (8.3), SDG 13 (13.1), SDG 15 (15.1, 15.2, 15.5, 15.9, 15.a, 15.b)	3.2.3.1 Improve implementation of strategic documents (strategies with the forest and forestry development plan for the period 2014–2023) so as to enable sustainable forest management and conservation of landscape values of areas under forests. Provide funds for the development of the forest management plans for all forest areas, forest management plans for all management units and private forests, SDG 15 (15.2, 15.a). 3.2.3.2 Improve management capacities (planning services and sustainable use of forests, monitoring and control services in the area of forest resource management), SDG 15 (15.2). 3.2.3.3 Enable development of forestry and wood industry within sustainable frameworks in order to enable conservation of forest biocapacity, taking into account they make 75% of the land biocapacity, SDG 15 (15.2, 15.9, 15.b). 3.2.3.4 Ensure consistent application of environmental impact assessment in the award of concessions on forests and establish licensing system for wood products in compliance with relevant EU directives (Timber and FLEGT directives, SDG 8 (8.3) and 10 (10.2). 3.2.3.5 Improve forests information system (e.g. by introducing and monitoring indicators for forest management, including data on illegal logging), including the drafting of forest ecological database for sustainable forest management and protection in Montenegro, and for mapping of forest habitats and vegetation.	- NIP04 Indicators in the frame of Aichi 3, 5, 9, 11, 12 tasks once introduced into the national monitoring system - NIP07 - MDG 7.1.3 Proportion of land covered by forests (%) - NIP11 B06, EPA Forest fires - SDG 15.1.1 Forest area as a proportion of total land area - SDG 15.2.1 Progress towards sustainable forest management - SDG 13.2.1 Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/ plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other) - SDG 13.3.1 Number of countries that have integrated mitigation, adaptation, impact reduction and early warning into primary, secondary and tertiary curricula - SDG 13.3.2 Number of countries that have	- Five-year status overviews indicate growth in proportion of forests in the land biocapacity (measuring Ecological Footprint), so that forests and forest land participate with at least 75% in total land biocapacity. - Increased wood volume in commercial high forests to 30m³/ha on average - Increased proportion of the first and second growing class by 10% each - Increased proportion of conifers in volume by 10% - Increased area of selection and group-selection forests on the account of even-aged forests - Increased coverage of high forests by 2% - Increased openness of commercial forests at least to 15 m/ha - Number of forest fires is continually decreasing - By 2020 established monitoring of invasive alien species pathways and limited and/or

	3.2.3.6 Raise awareness of private forest owners, concessionaries and licensed entrepreneurs about the necessity of sustainable forest management, SDG 15 (15.2, 15.9, 15.b). 3.2.3.7 Biophysically map and assess forest ecosystem services, and map changes in forest ecosystem services due to dynamics of natural resources, implementing of management policy, climate change and harmful impacts on forests (fires, pests), SDG 15 (15.1). 3.2.3.8 Develop a review of status and scenarios of economic valorization of forest ecosystem services, SDG 15 (15.1). 3.2.3.9 Encourage research work in forestry, especially from the aspect of determination of climate change impacts and possibilities of forest to adapt to climate change, use of biomass as a renewable energy source, conservation of forests as one of key ecosystems, ecological reconstruction, improvement of the forest health status, and development of forest management system, SDG 13 (13.1). 3.2.3.10 Integrate measures of adaptation to climate change into planning documents in sector of forestry in order to increase resilience of forest ecosystems to impact of climate change including protection against forest fires, SDG 13 (13.2). 3.2.3.11 Ensure regular afforestation, intensify the growth and care of young forests and intensify transition of coppice into high forests, including: SDG 15 (15.1, 15.2, 15.b) - rehabilitation of fired stands, - maintenance and improvement of forest production potentials by increasing their volume and improving their structure and quality, - investing into construction and maintenance of forest routes and maintenance of the existing open spaces in forest areas; - increase the efficiency of wood use (improvement of technologies for exploitation, development of wood processing chain, use of wood waste and encouraging shift to more efficient use of biomass for heating). 3.2.3.12 Support efforts for the increase of use of waste biomass as fuel (pellet and similar forms), integration of forestry sector into the rural development, especially in the context of creation of new jobs in forestry and wood processing industry, and increase of household revenues in rural areas, efforts of private sector in forestry (provision of professional and financial support to owners of private forests and to associations, development of entrepreneurship), as well as increase of competitiveness of Montenegrin forest products on the European market, etc. SDG 7 (7.a).	- systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions	- forests - Mapping of forest and water ecosystem services status conducted, and by 2030 positive changes are recorded - By 2020, valuation of water and forests ecosystem services and introduced fees and green taxes for use and pollution of these resources directed to the improvement of water and forest ecosystem services - By 2020 adopted all planning documents in the area of forestry and are in implementation, forest-ecological database established and mapping of forest habitats and vegetation mapped - By 2020, effective and fair water prices introduced - Taxes and fees for water used are charged for use of waters and discharge of waste waters into surface waters, eco labels, green taxes and penalties for use of water resources without permit - Water exploitation index is falling - Scientific research in the area of water and forestry is in growing trend - Modern techniques introduced for use of waste biomass as fuel, especially in areas where air pollution is caused by emission of PM10 (e.g. in Pljevlja) - Water recipients and sea receive discharges of only treated waste waters - In 2020 losses in water supply system in Montenegrin municipalities amount to 30%. - Proportion of connection to sewerage network in urban areas is 85% - By 2029 fully implemented Directive 271/91/EEC on urban waste waters - All agglomerations are covered by WWTP, and connection to sewerage network goes beyond 90 % - Proportion of treated waste waters in relation to total quantities of waste waters is 60% in 2020, and more than 90% in 2029 - Values of NIP13-NIP17 indicators are within limits set forth by the national regulations - Level of anthropogenic impact to surface water quality in 2020 is 10% - Values of NIP25-NIP32 indicators are within limits set forth by the regulations - By 2020, cadastre of water polluters developed, delineation of water bodies conducted and river basin management plans adopted
3.2.4 Enable resource-efficient utilization of water resources SDG: 6 (6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.a, 6.b), SDG 11 (11.5), SDG 13 (13.1, 13.2)	3.2.4.1 Adopt the Strategy on waters¹ and river basins management plans within deadlines set forth in the EU Accession Plan of Montenegro. 3.2.4.2 Mutually harmonize and coordinate implementation of policies addressing the use of water resources (agriculture, energy, regional policy), SDG 6 (6.5, 6.b). 3.2.4.3 Upgrade managerial capacities (services for planning and sustainable use of water resources, control and supervision over water resource management), SDG 6 (6.5). 3.2.4.4 Reduce introduction of pollution in water recipients, especially the prevention of pollution at source, controlling the quality and quantity of waste waters at the source of emission, treating and recycling waste waters from industry and urban areas, SDG 6 (6.3). 3.2.4.5 Develop a cadastre of surface and ground waters polluters, SDG 6 (6.3). 3.2.4.6 Enable safe water supply from the hygienic-sanitary point (e.g. by rehabilitating worn water supply network and constructing new one, protecting the sanitary protection zones around certain springs), SDG 6 (6.1, 6.2). 3.2.4.7 Rationalize water consumption through reduction of losses and overuse, SDG 6 (6.4). 3.2.4.8 Improve the efficiency of water use (measuring the consumption, reducing losses in systems, guidelines for re-use), SDG 6 (6.3, 6.4). 3.2.4.9 Enable consistent application of leading principles for the development of sustainable hydroenergy (e.g. principles and ICPDR²) and strategic and project environmental impact assessment in planning of water resource exploitation, primarily through use of hydropotential, and use of materials from river courses. Improve the status of water courses, including the improvement of control over the exploitation of materials from river courses, and restore degrade water ecosystems, SDG 6 (6.6). 3.2.4.10. Assess the status of ecosystem services of water, and map changes in ecosystem services of waters caused by the dynamics of natural processes, implementation of management policy, impact of pollution, use of hydropotential and exploitation of material from river courses, climate change and impact of all other hazards, SDG 6 (6.5).	- NIP13 V01, EPA Nutrients in surface waters - NIP14 V02, EPA Biological oxygen demand - NIP15 V03, EPA Surface water quality index - NIP16 MDG7.1.8 Level of anthropogenic impact to surface water quality (%) - NIP17 V04, EPA Drinking water quality - NIP18 V05, EPA Use of freshwater resources - SDG 6.3.1 Proportion of wastewater safely treated - SDG 6.2.1 Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water - SDG 6.b.1 Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management - SDG 6.3.2 Proportion of bodies of water with good ambient water quality - NIP19 - V06, EPA Water losses - NIP20 MDG 7.2.1 Losses on water supply network in urban areas (%) - NIP21 MDG 7.2.2 Proportion of connection to sewerage network in urban areas	- In 2020 losses in water supply system in Montenegrin municipalities amount to 30%. - Proportion of connection to sewerage network in urban areas is 85% - By 2029 fully implemented Directive 271/91/EEC on urban waste waters - All agglomerations are covered by WWTP, and connection to sewerage network goes beyond 90 % - Proportion of treated waste waters in relation to total quantities of waste waters is 60% in 2020, and more than 90% in 2029 - Values of NIP13-NIP17 indicators are within limits set forth by the national regulations - Level of anthropogenic impact to surface water quality in 2020 is 10% - Values of NIP25-NIP32 indicators are within limits set forth by the regulations - By 2020, cadastre of water polluters developed, delineation of water bodies conducted and river basin management plans adopted

	3.2.4.11 Improve management of demand for water by applying economic instruments (adequately value water resources, establish the fees for water catchment, introduce effective and fair water prices, introduce taxes and fees for use of water and discharge of waste water into surface waters, eco labels, green taxes and penalties for unpermitted use of water resources), SDG 6 (6.5). 3.2.4.12 Integrate measures of adaptation to climate change into water management system with respect to sensitiveness of water resources to changes in temperature and rainfall regime and expected significant changes (in flows, abundance, floods, and other related phenomena caused by weather extremes), SDG 13 (13.1, 13.2). 3.2.4.13 Improve availability of financial means needed for the completion of construction of waste water treatment plant and sewerage system in accordance with master plans for waste water management by 2029, SDG 6 (6.a). 3.2.4.14 Establish the system of monitoring, forecasting and early warning, and adopt a plan for flood risk management, including mapping of areas specifically exposed to flood risks, strengthening information system, SDG 11 (11.5), SDG 13 (13.1). 3.2.4.15 Upgrade and renew the existing systems for protection against floods in the areas specially exposed to flood risks, SDG 13 (13.1).	- NIP22 MDG 7.2.3 Proportion of treated water waters in relation to total water quantities in compliance with the national regulations (%) - NIP23 V07, EPA Access to public sewerage - NIP24 V08, EPA Access to treatment plants - SDG 6.4.1 Change in water-use efficiency over time - SDG 6.4.1 Change in water-use efficiency over time - SDG 6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources - SDG 15.1.2 Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type - SDG 6.5.1 Degree of integrated water resources management implementation (0-100) - SDG 6.5.2 Proportion of transboundary basin area with an operational arrangement for water cooperation - SDG 6.6.1 Change in the extent of water-related ecosystems over time - SDG 14.1.1 Index of coastal eutrophication and floating plastic (ICEP) debris density - SDG 14.a.1 Proportion of total research budget allocated to research in the field of marine technology - SDG 13.2.1 Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/ plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other) - SDG 13.3.1 Number of countries that have integrated mitigation, adaptation, impact reduction and early warning into primary, secondary and tertiary curricula - SDG 13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions

3.2.5 Conduct remediation of the existing pollution and build infrastructure for waste and waste water treatment SDG 9 (9.4, 9.5)	3.2.5.1 Implement remediation of industrial pollution, primarily through implementation of project "Industrial waste management and cleaning": - Remediate grit disposal site on the site of Adriatic Shipyard of Bijela, - Remediate flotation tailing pond of Gradac, - Remediate ash and slag disposal site on Maljevac, - Remediate solid waste disposal site in Aluminum Plant Podgorica and red sludge pond on the site of APP, as well as Port Milena channel. 3.2.5.2 Apply optimal best available technologies for disposal and treatment of industrial waste in future, SDG 9 (9.4, 9.5). 3.2.5.3 Enable full implementation of the program for adjustment of certain industrial branches to the Law on Integrated Pollution Prevention and Control, primarily in terms of integrated permit issuance to APP, Steel Mill, TPP in Pljevlja. 3.2.5.4 Implement priority remediation projects on sites with polluted soil, as well as of unsuitably urbanized areas: - unregulated solid waste disposal sites (municipal, construction, metal, rubber, wooden, bulky, PCB waste and other), - legally urbanized areas not equipped with utility infrastructure, - areas of legalized unpermitted construction, - quarry sites, thus encouraging implementation of green infrastructure projects. 3.2.5.5 Establish waste management system by applying optimal scenario set forth in the National Waste Management Plan in Montenegro for the period 2015-2020 and Waste Management Strategy of Montenegro by 2030, including the construction of a centre for thermal treatment of waste and full utilization of capacities of two so far constructed sanitary landfills for solid waste in Podgorica and Bar. 3.2.5.6 Implement projects for the construction of waste water treatment plant and sewerage system within deadlines defined in Master Plans for Waste Water Management.	- SDG 12.a.1 Amount of support to developing countries on research and development for sustainable consumption and production and environmentally sound technologies - SDG 9.b.1 Proportion of medium and high-tech industry value added in total value added - SDG 11.6.1 Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities - SDG 12.4.1 Number of parties to international multilateral environmental agreements on hazardous waste, and other chemicals that meet their commitments and obligations in transmitting information as required by each relevant agreement - SDG 12.4.2 Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment - NIE 36, MORT, Annual growth rate for waste generation (in LSG with assessed increase of population) - SDG 17.7.1 Total amount of approved funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies - NIE32 MORT Quantity of generated industrial waste - NIE33 Collected waste in relation to total generated waste (quantity of treated and disposed municipal waste in relation to total quantity of generated municipal waste) - NIE34 Proportion of processed industrial waste - NIE39 Quantity of biodegradable municipal waste landfilled in relation to total quantity of biodegradable waste	- Proportion of contaminated locations where application of remediation measures started in the previous year, is reducing by 2020, and elimination of contaminated locations and progress in management thereof is recorded by 2030 (EU Road Map towards Resource Efficiency). - By 2020, ecosystems providing essential services and contributing to life quality restored (Aichi target 14) - By 2020 at least 15% of degraded ecosystems restored and their resilience to climate change enhanced, their capacities as CO₂ sinks increased (Aichi target 15) - Established waste management system: by 2020 at least 50% of total quantity of collected waste (glass, paper, metal and plastic) is recycled, as well as at least 70% of non-hazardous construction and demolition waste; 25% of primary selected waste, and landfilling of biodegradable waste reduced to 35% compared to 2010; 95% of total generated waste is collected by 2030 - Proportion of connection to sewerage network in urban areas is 85% - By 2029 fully implemented Directive 271/91/EEC on urban waste waters - All agglomerations are covered by WWTP, and connection to sewerage network goes beyond 90 % - Proportion of treated waste waters in relation to total quantities of waste waters is 60% in 2020, and more than 90% in 2029
3.2.6 Establish integrated coastal zone management SDG 14 (14.1, 14.2, 14.3, 14.5, 14.7, 14.a, 14.b, 14.c)	The NSSD has fully taken over the measures and activities defined in the National Strategy for Integrated Coastal Zone Management by 2030, SDG 14 (14.1, 14.2, 14.3, 14.5, 14.7, 14.a, 14.b, 14.c)		

INSTITUTIONS RESPONSIBLE

Leading institution(s): Ministry of Health

Institutions involved in implementation: Ministry of Sustainable Development and Tourism, Environmental Protection Agency, Institute for Public Health, Directorate for Inspection, local self-government, CETI d.o.o.

MEASURES	SUB-MEASURES	INDICATORS	TARGET TO BE ACHIEVED BY 2030
3.3.1 Establish mechanisms for cross-sectoral cooperation with the aim to improve population health SDG 2 (2.4), SDG 3 (3.9), SDG 6 (6.1, 6.2, 6.3, 6.4), SDG 11 (11.6, 11.c), SDG 13 (13.1), SDG 17 (17.7)	3.3.1.1 Establish a system for the assessment and management of risks of eco-hazards for human health, with special emphasis on health of vulnerable groups of population.		
	3.3.1.2 Contribute to the improvement of human health by implementing measures for the improvement of air quality, access to safe drinking water and safe food, as well as through municipal and industrial waste management, and measures for the monitoring and reduction of all other forms of environmental pollution, SDG 2 (2.4), 3 (3.9), 6 (6.1, 6.2, 6.3, 6.4), 11 (11.6).		
	3.3.1.3 Improve life quality, physical and physical wellbeing of people stimulating construction using safe materials and maintaining inclusive and resilient communities in urban and rural areas with satisfying environmental quality, SDG 3 (3.4), 11 (11.6, 11.c).	- SDG 3.9.1 Mortality rate attributed to household and ambient air pollution - SDG 3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services) - SDG 3.9.3 Mortality rate attributed to unintentional poisoning - SDG 11.6.2 Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted) - Indicators defined for measures 3.1.1 and 3.1.2 are also relevant here	- By 2020 biometeorological information system established - Established monitoring of impacts of climate change and variability to human health, as well as management of risks generated by climate change - By 2020 determined risks for human health caused by pollution and established risk management system, especially with regard to eco-hazards - Annual records demonstrate fall in illnesses caused by eco-hazard risks - By 2020 impact of pollution and natural and anthropogenic hazards to human health makes an integrated part of the environmental monitoring information system
	3.3.1.4 Evaluate and manage pollution-related eco-hazards (air, water, soil and sea pollution) in order to minimize their impacts on human health, SDG 3 (3.9), 6 (6.3), 13 (13.1).		
	3.3.1.5 Establish integrated monitoring and related information system for the monitoring of environmental performance and impacts of pollution and natural and anthropogenic hazards on human health.		
	3.3.1.6 Strengthen technical and administrative capacities and invest into research for the impacts of environmental pollution on human health, specifically focusing on hot spots of significance for human health in Pljevlja, Nikšić, and so on, SDG 17 (17.7).		
3.3.2 Reduce vulnerability of population caused by climate change SDG 1 (1.5), SDG 13 (13.2, 13.3)	3.3.2.1 Adopt a comprehensive strategy for adaptation to climate change and variability in the sector of public health, which inter alia should enable: assessment of climate change and variability impacts (effects of temperature increase on human health, air pollution, probability of future risks of floods, infections, illnesses, etc.), assessment and management of risks leading to illnesses caused by climate change, as well as monitoring of health status in cases of extreme events (e.g. in heat waves, extreme temperature, floods, cyclones), and so on, SDG 13 (13.2).	- SDG 13.2.1 Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other) - SDG 13.3.1 Number of countries that have integrated mitigation, adaptation, impact reduction and early warning into primary, secondary and tertiary curricula - SDG 13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions	
	3.3.2.2 Establish biometeorological information system with database about the impacts of climate change and variability and extreme events to human health.		
	3.3.2.3 Implement education programs for healthcare workers about the impacts of climate change and extreme events to human health, SDG 1 (1.5), 13 (13.3).		

THEMATIC AREA

3. NATURAL RESOURCES - CONSERVATION OF NATURAL CAPITAL

STRATEGIC GOAL

3.4 SOLVE PROBLEMS OF UNSUSTAINABLE CAPACITATION OF SPACE GENERATED BY UNREALISTIC DEMAND IN TERMS OF QUANTITY AND LOW QUALITY OF BUILT-UP AREAS

INSTITUTIONS RESPONSIBLE

Leading institution(s): Ministry of Sustainable Development and Tourism

Institutions involved in implementation: Ministry of Finance, local self-government, Directorate for Inspection, PE (future Agency) for coastal zone management

MEASURES	SUB-MEASURES	INDICATORS	TARGET TO BE ACHIEVED BY 2030
3.4.1 Amendments to the Law on Spatial Development and Constructions, related laws and bylaws, improving the planning system, spatial development and construction of structures thus increasing spatial value and disabling uncontrolled and irrational space use through planning SDG 11 (11.3, 11.a, 11.b), SDG 14 (14.2)	3.4.1.1 Define construction areas as an important element in creation of spatial development policy; establish typology of construction areas (inside the settlement, outside the settlements, separated, and so on), SDG 11 (11.3, 11.a).	- SDG 11.3.1 Ratio of land consumption rate to population growth rate - SDG 11.3.2 Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically	- Established spatial information system with GIS database and system of indicators about the status in the space, and is regularly updated - No illegal and unplanned construction outside the construction areas
	3.4.1.2 Establish a typology and contents of planning documents to define construction areas (spatial-urban plans and/or spatial plans for special purposes), SDG 11 (11.3, 11.a).	- SDG 11.a.1 Proportion of population living in cities that implement urban and regional development plans integrating population projections and resource needs, by size of city	- Significantly improved quality of reporting about the spatial status by applying the aforementioned spatial indicators
	3.4.1.3 Determine corrected rule for changes in dimensions of construction areas, as well as exemptions from such defined rules, SDG 11 (11.3).	- SDG 11.7.1 Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities	- Proportion of construction areas over the total area of coastal municipalities is 10%
	3.4.1.4 Establish efficient mechanisms for the monitoring of application of norms pertaining to dimensions of construction areas; identify regional specificities of Montenegro when it comes to construction areas, their distribution and character, and this fact should be taken into account while defining criteria for changes in coverage of construction areas, SDG 11 (11.3).	- NIP45 MORT, Construction indicator (%) - NIP 46 MORT, Planned construction indicator (%)	- Proportion of construction areas in the strip of 1km from the coastline (in width) is 30% - Professional evaluation of planning documents quality is successfully applied, supported by use of objective criteria and indicators, as well as GIS analyses and data from the spatial information system
	3.4.1.5 Analyze the need to establish protected coastal area which would resume all specificities and challenges of coastal zone spatial management in order to ensure more efficient integrated management and with regard to that define special criteria for planning of construction areas, SDG 11 (11.3, 11.a, 11.b), SDG 14 (14.2).	- NIP 47 MORT Indicator of utilization of CL within GUR (%) - NIP 48 MORT Indicator of utilization of CL outside the GUR (%) - NIP 49 MORT, Proportion of construction areas in relation to total coastal areas	- The planning document system is stabilized and successfully satisfies needs of the efficient spatial planning - Strategic environmental impact assessments contribute to the quality of planning documents, especially by minimizing environmental impacts
	3.4.1.6 Amendments of the Rulebook on closer content and form of planning documents, criteria for land use, urban planning regulation elements and unique graphic symbols for the built-up and non-built-up part of all defined land uses, as well as obligation to make a specific maps where construction areas would be transparently and clearly identified, SDG 11 (11.3).	- NIP 50 MORT, Proportion of construction areas in the strip of 1km from the coastline (in width) - SDG 14.2.1 Proportion of national exclusive economic zones managed using ecosystem-based approaches	- Improved quality of regulation (urban) plans thus creating the basis for the improved quality of built-up area
	3.4.1.7 Establish mechanisms for the protection of land use and functions of importance for conservation and prevention of jeopardizing public interests in spatial planning, SDG 11 (11.3).	- SDG 7.b.1 Investments in energy efficiency as a percentage of GDP and the amount of foreign direct investment in financial transfer for infrastructure and technology to sustainable development services	- Regulation urban plans enable corrections of conflicting land use defined in the existing plans, thus inciting higher utilization of construction areas
	3.4.1.8 Establish mechanisms application of which would enable development of planning documents within legally prescribed deadlines and respect of hierarchy in drafting and adoption of planning documents - from higher tier plans to lower tier plans, which would also enable participation of citizens in all spatial and landscape planning phases, SDG 11 (11.3, 11.a).	- SDG 11.1.1 Proportion of urban population living in slums, informal settlements or inadequate housing - SDG 11.2.1 Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities	- In the adoption of new spatial-planning documents at local level (next generation of plans) or in the amendments of the existing ones, construction areas currently planned are significantly reduced
3.4.2 Introduce continual monitoring of changes in spatial development in centralized information system, SDG 11 (11.3, 11.a)	3.4.2.1 Establish quality documentation base - thematic and basic studies, and permanently update them so as to ensure quality of spatial planning documentation, SDG 11 (11.3).	- SDG 9.c.1 Proportion of population covered by a mobile network, by technology	- Significantly improved housing stock, especially in terms of energy efficiency, and generally of building quality
	3.4.2.2 Maintain updated documentation base and enable processing of indicators related to consumption of space for each municipality, SDG 11 (11.3, 11.a):	- allocated to the construction and retrofitting of sustainable, resilient and resource-efficient buildings utilizing local materials	- Professional staff in all branches of construction industry is well-educated and knowledgeable about modern technologies, construction techniques and materials
	- population, - population density for settlements zones (GUR),		- Occupational health and safety

	- population density for settlements zones (GUR), - built-up areas within settlements and cities (GUR), - built-up areas outside the settlements and cities (GUR), - planned construction areas within settlements and cities (GUR), - planned construction outside settlements and cities (GUR), - indicator of construction land utilization within the GUR, - indicator of construction land utilization outside the GUR. 3.4.2.3 In regular reports on the status of spatial regulation, by applying the indicators for the construction area, status analysis should be conducted through comparative overview with regard to the status presented in previous reporting period, SDG 11 (11.3, 11.a).		- Occupational health and safety comply with the EU standards - By 2030 enable safe access to appropriate favorable housing for all - Montenegrin cities and towns are pleasant places for living based on sustainable development principles - Local self-governments efficiently govern local social housing policies funded from local funds, which are transparently managed - Life quality in informal settlements significantly improved and enables life worth living
3.4.3 Encourage spatial optimization and quality of built-up areas, SDG 11 (11.3, 11.7, 11.a), SDG 14 (14.2), SDG 16 (16.6)	3.4.3.1 In the drafting of spatial-planning documents, encourage application of instruments (e.g. application of the construction area occupancy index) which can be used to influence correctively to the set trends of unsustainable space capacitation and to the increase of use of already built-up space, SDG 11 (11.3, 11.a). 3.4.3.2 Encourage implementation of interventions in the manner to increase values and quality of area construction, and wherever possible to incite optimization of land use avoiding implementation of interventions in the set anthropogenic uses in the areas of high environmental vulnerability, SDG 11 (11.3, 11.7, 11.a). 3.4.3.3 In cases when regular monitoring of spatial status indicates that it is justified to amend the adopted planning documents so as to act correctively to the set trends of unsustainable space capacitation and to increase quality of built-up areas, SDG 11 (11.3, 11.a). 3.4.3.4 Use tax policy instruments focused on the accomplishment of planning goals, SDG 11 (11.3, 11.a). 3.4.3.5 Establish efficient mechanisms for the prevention of unpermitted construction, SDG 11 (11.3, 11.a): - strengthening the inspectorates, - providing technical means and using more widely information technologies for the monitoring of spatial status, - strengthening penalties in cases of unpermitted construction and resolving the problem of buildings constructed without permit. 3.4.3.6 Develop programs for professional training and strengthen competences of spatial planner and architects, SDG 11 (11.3). 3.4.3.7 Strengthen capacities of local self-governments in preparation, drafting and implementation of planning documents, SDG 11 (11.a), SDG 16 (16.6). 3.4.3.8 Implement all measures and sub-measures referred to in the NSICZM pertaining to the sustainable spatial planning system, SDG 11 (11.3, 11.a), SDG 14 (14.2).		
3.4.4 Enable construction of new buildings exclusively in accordance with sustainable architecture and construction standards, and improve the existing construction stock, SDG 7 (7.2) (7.3)	3.4.4.1 Incite the use of environmentally friendly and energy efficient materials; After 2020 all newly built constructions should be subject to the principle of energy efficient construction (reference to 4.2.1.2 and 4.2.5.3), SDG 7 (7.2, 7.3). 3.4.4.2 Transform the existing construction buildings into modern, sustainable, environmentally and energy efficient buildings (reference to 4.2.1.2 and 4.2.5.3), SDG 7 (7.2) (7.3). 3.4.4.3 Improve the system of management and maintenance of the existing housing stock; Incite the establishment of funds for reconstruction, adaptation and repairs of the existing construction stock, especially of the housing stock, SDG 7 (7.2, 7.3). 3.4.4.4 Improve the cadastre of properties by modernizing geodetic-cadastre information system and enabling linking thereof to spatial information system. 3.4.4.5 Enable continual education of professionals so as to train them to respond to requiring conditions of modern. 3.4.4.6 Improve occupational health and safety in construction works.		

3.4.5 Improve life quality in cities, SDG 11 (11.2, (11.3, 11.7, 11.a, 11.6), SDG 12 (12.8)	3.4.5.1 Improve the quality of public spaces, especially of open ones, such as squares, piazzas, recreational areas, playgrounds, sport areas, and so on, in order to create better ambient for leisure, work, recreation and play, SDG 11 (11.7). 3.4.5.2 Improve environmental performance in cities through reduced air pollution, noise, excessive traffic, crime, etc; Improve life quality of citizens in coastal cities which is partially degraded due to touristic pressure and insufficient contents outside the touristic season; Develop programs, especially of cultural contents, which will contribute to revival of cities in the northern region, SDG 11 (11.6). 3.4.5.3 Improve the connection between city cores and suburban areas so as to improve life quality for people outside city centers; Incite mobility in cities through different measures for the improvement of public transport and walking conditions; Create “smart” systems for integration of information technologies, infrastructure and energy sector, SDG 11 (11.a, 11.2). 3.4.5.4 Improve the management of construction land in cities; Resolve the problem of disbalance between the offer and demand for housing, particularly expressed through construction of apartments for rent in the coastal zone; Plan, regulate and manage urban areas taking into account needs of groups with special needs: women, old, Roma population, refugees and displaced persons, persons with disabilities, and so on, SDG 11 (11.1, 11.3). 3.4.5.5 Improve education and awareness about sustainable cities, SDG 12.(12.8).		
3.4.6 Improve the state in the housing sector, SDG 11 (11.1, 11.3)	3.4.6.1 Strengthen the participation of local self-governments in the field of improved housing policy, primarily with regard to the implementation of the Law on Housing (maintenance of residential buildings, establishment of the tenants’ assembly, control over payment of fees for maintenance of buildings, etc.), and availability of funds for the construction of social housing and maintenance of residential buildings, SDG 11 (11.1, 11.3). 3.4.6.2 Develop renting sector, both public and private one, along with the creation of conditions for full legal security for all stakeholders in this process, SDG 11 (11.1) 3.4.6.3 Resolve housing problems of young families, families with many children, persons with disabilities and other groups with special needs within the social housing, SDG 11 (11.1). 3.4.6.4 Improve the quality of housing in informal settlements, SDG 11 (11.1).		
3.4.7 Minimize environmental impacts and improve economic performance in exploitation of mineral resources, SDG 6 (6.6), SDG 8 (8.4), SDG 12 (12.1, 12.2), SDG 15 (15.3)	3.4.7.1 Develop and apply adequate instruments which will in long run enable achievement of resource efficiency of use of domestic raw materials in the existing and future activities in the industrial sector, such as application of circular economy elements: re-use of products for the original or other purposes, recovery of products or reproduction of some of the product elements, material and its components cascading (e.g. textile used for clothes can become furniture textile, then insulation textile), recycling of material (at the beginning, during and at the expiry date), SDG 8 (8.4), 12 (12.2). 3.4.7.2 Reduce domestic material consumption and increase productivity of resources in sectors with dominating consumption of metals and non-metals - construction and processing industry, SDG 12 (12.2). 3.4.7.3 Incite reduction of impacts of products throughout its life cycle, prevention of waste, recycling and re-use, research and innovations, as well as application of market-based instruments and so on, SDG (12.1, 12.2). 3.4.7.4 By implementing the environmental impact assessment enable that conditions for concessions related to the use of natural resources (raw materials) reflects their real value, including degradation costs as well. 3.4.7.5 Follow the EU trends in modification of national accounts for the inclusion of contribution of natural resources to the creation of added value in the national economy. 3.4.7.6 Remediate areas degraded due to exploitation of metal and non-metal raw materials, SDG 6 (6.6), 15 (15.3).	- SDG 8.4.1 Material footprint (MF), material footprint per capita, and material footprint per GDP - SDG 8.4.2 Domestic material consumption (DMC), domestic material consumption per capita, and domestic material consumption per GDP - SDG 15.3.1 Proportion of land that is degraded over total land area	- Resource productivity in construction industry in 2020 increased by 201.1% compared to 2013 - Increased resource productivity of minerals and metals - Product re-use models, i.e. circular economy models are functional - re-use of products for the original or other purposes, recovery of products or reproduction of some of the product elements, etc. - Environmental impact assessment applied to concession documents for use of natural resources - raw materials - Restored areas used for sport, public contents, landscaping, etc.

THEMATIC AREA	3. NATURAL RESOURCES - CONSERVATION OF NATURAL CAPITAL
STRATEGIC GOAL	3.5 ENABLE RESOURCE-EFFICIENT USE OF METALLIC AND NON-METALLIC RESOURCES

Leading institution(s): Ministry of Economy

Institutions involved in implementation: Ministry of Sustainable Development and Tourism, Ministry of Finance, Environmental Protection Agency, Directorate for Inspections, local self-governments

INSTITUTIONS RESPONSIBLE			
MEASURES	SUB-MEASURES	INDICATORS	TARGET TO BE ACHIEVED BY 2030
3.5.1 Minimize environmental impacts and improve economic performance in exploitation of mineral resources, SDG 6 (6.6), SDG 8 (8.4), SDG 12 (12.1, 12.2), SDG 15 (15.3)	3.5.1.1 Develop and apply adequate instruments which will in long run enable achievement of resource efficiency of use of domestic raw materials in the existing and future activities in the industrial sector, such as application of circular economy elements: re-use of products for the original or other purposes, recovery of products or reproduction of some of the product elements, material and its components cascading (e.g. textile used for clothes can become furniture textile, then insulation textile), recycling of material (at the beginning, during and at the expiry date), SDG 8 (8.4), 12 (12.2). 3.5.1.2 Reduce domestic material consumption and increase productivity of resources in sectors with dominating consumption of metals and non-metals - construction and processing industry, SDG 12 (12.2). 3.5.1.3 Incite reduction of impacts of products throughout its life cycle, prevention of waste, recycling and re-use, research and innovations, as well as application of market-based instruments and so on, SDG (12.1, 12.2). 3.5.1.4 By implementing the environmental impact assessment enable that conditions for concessions related to the use of natural resources (raw materials) reflects their real value, including degradation costs as well. 3.5.1.5 Follow the EU trends in modification of national accounts for the inclusion of contribution of natural resources to the creation of added value in the national economy. 3.5.1.6 Remediate areas degraded due to exploitation of metal and non-metal raw materials, SDG 6 (6.6), 15 (15.3).	- SDG 8.4.1 Material footprint (MF), material footprint per capita, and material footprint per GDP - SDG 8.4.2 Domestic material consumption (DMC), domestic material consumption per capita, and domestic material consumption per GDP - SDG 15.3.1 Proportion of land that is degraded over total land area	- Resource productivity in construction industry in 2020 increased by 201.1% compared to 2013 - Increased resource productivity of minerals and metals - Product re-use models, i.e. circular economy models are functional - re-use of products for the original or other purposes, recovery of products or reproduction of some of the product elements, etc. - Environmental impact assessment applied to concession documents for use of natural resources - raw materials - Restored areas used for sport, public contents, landscaping, etc.

THEMATIC AREA	3. NATURAL RESOURCES - CONSERVATION OF NATURAL CAPITAL
STRATEGIC GOAL	3.6 MITIGATE OF NATURAL AND ANTROPOGENIC HAZARDS IMPACTS

INSTITUTIONS RESPONSIBLE		Leading institution(s): Ministry of Sustainable Development and Tourism (Directorate for Climate Change), Ministry of Interior (Directorate for Emergencies) Institutions involved in implementation: Ministry of Sustainable Development and Tourism, Ministry of Agriculture and Rural Development, Ministry of Finance, Institute for Hydrometeorology and Seismology, Directorate for Inspections, local self-governments, CETI d.o.o., Directorate for Inspections	
MEASURES	SUB-MEASURES	INDICATORS	TARGET TO BE ACHIEVED BY 2030
3.6.1 Improve the understanding of hazard risks, SDG 11 (11.b), SDG 13 (13.1, 13.3), SDG 16 (16.6)	3.6.1.1 Improve scientific researches of risk and all dimensions thereof, starting from vulnerability, capacities, exposure of population and property to risk, SDG 11 (11.b).	- NIP52 UNDAF, Number of adopted and operational national action plans for different types of emergencies	- There is an obvious trend of increasing allocations from the state budget for research of hazard impacts and hazard risk management
	3.6.1.2 Constantly monitor numerous parameters and indicators SDG 11 (11.b).	- SDG 13.2.1 Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/ plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)	- Number of adopted and operational national action plans for different types of emergencies is 4 by 2021
	3.6.1.3 Educate population, raise public awareness and introduce education about hazards into the educational system, SDG 13 (13.1, 13.3).	- SDG 13.3.1 Number of countries that have integrated mitigation, adaptation, impact reduction and early warning into primary, secondary and tertiary curricula	- Parameters and indicators for the monitoring of hazard impact and hazard risk management developed
	3.6.1.4 Strengthen capacities in competent institutions, etc, SDG 16 (16.6) .	- SDG 13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions	- Prepared and as necessary applied plans for hazard risk management for emergencies and adaptation to climate change
3.6.2 Strengthen institutional framework for hazard risk management, SDG 3 (3.d), SDG 13 (13.2, 13.3)	3.6.2.1 Draft National Plan for Adaptation to Climate Change, SDG 13 (13.2).	- SDG 1.5.3 (and SDG 11.b.2) Number of countries with national and local disaster risk reduction strategies	- Established systems for coordinated actions of competent bodies in emergencies and for preparation of plans for risk management and adaptation to climate change
	3.6.2.2 Draft local actions plans for adaptation to climate change, SDG 13 (13.2).	- SDG 11.b.1 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030	- Established early warning systems
	3.6.2.3 Draft national emergency and rescue plans for all types of natural and anthropogenic hazards and other related emergencies, as well as local emergency and rescue plans for all types of natural and anthropogenic hazards, SDG 13 (13.1, 13.2).	- SDG 11.5.2 Direct disaster economic loss in relation to global GDP, including disaster damage to critical infrastructure and disruption of basic services	
	3.6.2.4 Strengthen local capacities for reaction to hazards, SDG 3 (3.d).	- SDG 1.5.1 Number of deaths, missing persons and persons affected by disaster per 100,000 people	
	3.6.2.5 Strengthen all components of the system for hazard risk management, with a specific accent on early warning systems, SDG 13 (13.3).	- SDG 11.5.1 and SDG 13.1.2 Number of deaths, missing persons and persons affected by disaster per 100,000 people	
3.6.3 Invest into risk reduction and strengthening resilience of natural and social systems, SDG 1 (1.5), SDG 11 (11.5)	3.6.3.1 Ensure stable allocations of funds from the budget at state and local levels, investments from private sector, especially of large industrial establishments, mobilization of insurance sector and improve availability of funds from international sources for:		
	- mitigation of hazard consequences,		
	- enabling efficient post-accident reconstruction and recovery,		
	- strengthen human, social and natural resilience,		
	- scientific research and innovations.		
3.6.4 Improve readiness for response to emergencies and restoration through recovery, rehabilitation and reconstruction , SDG 3 (3.d), SDG 11 (11.5, 11.b), SDG 13 (13.3)	3.6.4.1 Ensure early warning systems, SDG 3 (3.d), 13 (13.3).		
	3.6.4.2 Ensure mobility in case of disasters, alternative ways for water, food and energy supply, and re-establishment of telecommunications, provision of medical aid and so on, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, SDG 11 (11.5, 11.b).		
	3.6.4.3 Improve readiness for preventive acting through: devised coordination, adoption and implementation of integrated policies and plans for inclusion, resilience to disasters, resource efficiency, mitigation and adaptation to climate change, holistic risk management in cases of disasters, all in line with the Sendai Framework for Disaster Risk Reduction 2015-2030 (including public awareness raising, establishment of public informative centers, organization of evacuation drills at all levels and trainings for proper acting in case of disasters, etc.), SDG 11 (11.b).		

3.6.5 Strengthen capacities for adaptation to climate change, SDG 1 (1.5), 2 (2.4), SDG 11 (11.b), SDG 13 (13.1, 13.2, 13.3, 13.a, 13.b)	3.6 .5.1 Reduce vulnerability of humans, natural and social systems to climate change and increase their resilience to inevitable climate change, SDG 1 (1.5), 2 (2.4), 11 (11.b), 13 (13.1, 13.2, 13.3, 13.a, 13.b): In healthcare (see - reference with healthcare) In agriculture: SDG 2 (2.4) - development or investment decisions should be made without neglecting real or potential impacts of climate or climate change, - adjust sowing dates, grow resilient plant sorts suitable for local circumstances, highly tolerable to climate conditions and least possibly vulnerable to pests, select the appropriate rotation of crops, use sorts which reduce erosion and are tolerable to floods, incite agricultural practice which protect soil and save water, - implement spatial and time adaptation of fertilization, adaptation of irrigation and drainage regime, - disseminate information, including weather and climate forecast. In the area of forestry: - renew forests in order to increase diversity thereof and introduce suitable species, - optimize forest management practice, - improve prevention of forest fires, - reduce additional stress factors (e.g. reduction of substances, preservation of soil fertility and avoidance of disturbance of sensitive forest ecosystems). For water resources: - use water resources more efficiently, - take into account change in intensity and frequency of extreme events when planning water supply infrastructure and in resource management, - cross-sectoral coordination of adaptation measures implementation, - enable sustainable management by using soil to improve water balance, - adapt planning infrastructure in order to ensure sufficient storing of water in tanks and aquifers, or provide drinking water through water supply network, - implement water saving measures in business, agriculture and forestry and in households, - improve water quality and ecological status of surface waters to reduce vulnerability of water ecosystem and basis for reliable drinking water supply, - improve observing systems and forecast of floods and droughts. In terms of nature and biodiversity conservation: - protect natural potential for adaptation, - improve migration possibilities (e.g. connecting biotopes), - establish protected areas so as to protect processes naturally occurring in the ecosystem. In coastal zone: - strengthen the existing protective facilities, - establish the retention area, - apply construction methods resilient to floods and constructions of resilient coastal infrastructure, - develop legal and institutional framework for integrated management in compliance with the Barcelona Convention, - prepare plans for the protection and rehabilitation of wetlands, - apply new monitoring techniques and tools for estimation of trends in conditions of climate change, - raise public awareness about flood risks, raise awareness about the importance of wetlands in adaptation to climate change.	- Good practice is applied in selection and implementation of measures in combat against climate change and impacts thereof to ecosystems and socio economic systems - Stopped or altered the existing maladaptive processes which increase vulnerability of humans, natural and social systems to climate change - Established monitoring, assessment and revision of adaptation measures implementation

ECONOMIC RESOURCES

THEMATIC AREA

STRATEGIC GOAL

4. ECONOMIC RESOURCES - INTRODUCTION OF GREEN ECONOMY

4.1. REDUCE LEVEL OF GREENHOUSE GASSES EMISSIONS BY 2030 BY 30% COMPARED TO BASELINE 1990

Leading institution(s): Ministry of Sustainable Development and Tourism

INSTITUTIONS RESPONSIBLE

Institutions involved in implementation: Environmental Protection Agency, Ministry of Economy, Ministry of Agriculture and Rural Development, Ministry of Transport and Maritime Affairs, Ministry of Science, Ministry of Education, Directorate for Forests, local self-governments, companies (plant operators, air traffic operators and agricultural producers), professional and scientific institutions and non-governmental sector, Chamber of Economy of Montenegro

MEASURES	SUB-MEASURES	INDICATORS	TARGET TO BE ACHIEVED BY 2030
4.1.1 Build capacities, improve education and raise public awareness about climate change and measures for mitigation of their effects, SDG 2 (2.4), SDG 7 (7.a), SDG 9 (9.2), SDG 12 (12.5), SDG 13 (13.2, 13.3), SDG 15 (15.b) and SDG 17 (17.3, 17.7, 17.9)	4.1.1.1	- SDG 13.2.1 Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/ plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other) - SDG 13.3.1 Number of countries that have integrated mitigation, adaptation, impact reduction and early warning into primary, secondary and tertiary curricula - SDG 13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions - SDG 17.7.1 Total amount of approved funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies	- Public administration capacities built - National legislation harmonized with the EU legislation and UNFCCC requirements - Raised level of coordinated actions between sectors and improved cooperation with educational and scientific institutions - Provided funds for all stipulated activities - Organized public awareness raising programs
	4.1.1.2		
	4.1.1.3		
	4.1.1.4		
	4.1.1.5		
	4.1.1.6		
	4.1.1.7		
	4.1.1.8		
4.1.2 Introduce low carbon technologies in industry in accordance with best available techniques SDG 2 (2.4), SDG 9 (9.2), SDG 12 (12.5), SDG 13 (13.2), SDG 15 (15.2)	4.1.2.1		- Low-carbon technologies represented - Integrated permits obtained - Adopted BAT guidelines, as well as standards for energy and environmental management
	4.1.2.2		
	4.1.2.3		
	4.1.2.4		
	4.1.2.5		

4.1.3 Increase share of renewable energy sources and promote rational use of energy, SDG 7 (7.1, 7.2, 7.3, 7.a, 7.b), SDG 9 (9.1, 9.5), SDG 10 (10.b) SDG 13 (13.2), SDG 17 (17.2, 17.9, 17.14, 17.17)	4.1.3.1 Increase efficiency of use of the existing renewable energy sources, SDG 7 (7.2). 4.1.3.2 Increase the use of new renewable energy sources for the production of electricity and heating energy (hydroenergy, solar energy, wind energy, biomass), observing environmentally relevant limits (including consistent application of project and environmental impact assessment), primarily in use of hydro potential for the production of electricity, SDG 7 (7.2). 4.1.3.3 Improve energy efficiency in industry through promotion and introduction of highly efficient co-generation, shift to alternative fuels (e.g. replace coal and oil derivatives with natural gas) and introduction of renewable sources (solar energy, biomass), SDG 7 (7.3), 9 (9.5). 4.1.3.4 Improve energy efficiency in transport sector through: promotion and introduction of electrical, hybrid and natural gas-fueled cars, higher share of biofuels, alternative forms of mobility (cycling), public city and intercity transport, eco-rides, diverting of cargo truck to railway transport, improvement of organization and efficiency of road transport in cities and application of integrated concepts ("smart" cities), SDG 7 (7.3). 4.1.3.5 Improve energy efficiency in the areas of residential, public and commercial consumption through promotion and introduction of: heating of space and water from remote heating systems, heating on biomass, heating pumps and natural gas, cooking on natural and liquid gas, highly efficient household appliances, light and air conditioning, standards and certificates for energy performance of buildings, devices, equipment and lighting, SDG 7 (7.3), 4.1.3.6 Introduce regulatory and financial-market mechanisms for the promotion of renewable energy sources and energy saving, i.e. mechanisms of support through prices/tariffs for electricity and heating, target subsidies, tax reduction, ESCO (Energy Saving Companies -- companies providing services in the area of energy saving), SDG 13 (13.2). 4.1.3.7 Attract investments into sustainable energy (extend infrastructure and upgrade technologies for the provision of modern and sustainable energy services for all) from a range of financial sources, from international funds with donations, to loans with relatively low interest rates and state and private banks, consistently observing environmentally relevant limit values, SDG 7 (7.1, 7.a, 7.b), 9, (9.1), 17 (17.9, 17.14, 17.17). 4.1.3.8 Strengthen regional cooperation, support in use of available amounts from international funds for mitigation of climate change (GEF, GCF etc.) and application of the UNFCCC mechanisms (NAMA), SDG 7 (7.a), 10 (10.b), 17 (17.2, 17.9).	- NIP 43 KP04, EPA GHG emissions trend, MDG 7.1.5 Anthropogenic GHG emissions calculated in [t CO2 eq/inh. - NIP 51, UNDAF, Proportion of GHG emissions reduction over total GHG emissions at annual level (%) - SDG 9.4.1 CO2 emissions per added value unit - SDG 17.14.1 Number of countries with mechanisms in place to enhance policy coherence of sustainable development - SDG 7.1.2 Proportion of population with primary reliance on clean fuels and technology - SDG 7.2.1 Renewable energy share in the total final energy consumption - SDG 7.3.1 Energy intensity measured in terms of primary energy and GDP - NIE15 E04, EPA, MDG7.6a, Energy intensity - NIE17, MDG 7.1.7 Proportion of RES over gross final energy consumption - SDG 7.b.1 Investments in energy efficiency as a percentage of GDP and the amount of foreign direct investment in financial transfer for infrastructure and technology to sustainable development services - NIE11 ME, Indicative energy saving target, % in relation to total consumption (energy efficiency) - SDG 15.1.1 Forest area as a proportion of total land area - NIP07 - MDG 7.3 Proportion of land covered by forests (%) - SDG 12.a.1 Amount of support to developing countries on research and development for sustainable consumption and production and environmentally sound technologies - NIE19 S01, EPA, Passenger transport - NIE20 S02, EPA, Cargo transport - NIE21 S03, EPA, Average age of the vehicle fleet - NIE22 S04, EPA, Number of motor vehicles	- By 2030 GHG emissions levels reduced by 30% compared to baseline 1990 - Anthropogenic GHG emissions amount to 5.7 t CO2 eq/inh by 2030 - Minimal GHG emissions reduction at annual level in total GHG emissions is 10% (4.715 kilotons) by 2021 - Energy intensity (GIC/ GDP) is 262.2 in 2020 - Proportion of energy generated from RES in total energy consumption is 27.7 in 2020 - Achieved national goal for the proportion of RES in gross total energy consumption of 33% by 2020 with more ambitious goals set for 2030 - Achieved indicative energy efficiency goal (9% by 2018) with more ambitious goals set for 2030 - Increased fiscal and regulatory subsidies/prerogatives for the promotion of renewable energy sources and energy savings - Increased investments into energy sector and implemented UNFCCC mechanisms (NAMA)
4.1.4 Improve status of forests and ensure additional afforestation, SDG 12 (12.2), SDG13 (13.1, 13.2) and SDG 15 (15.b)	4.1.4.1 Promote increased CO2 sinks in forestry by improving sustainability in forest management and growing, as well as by using quality autochthonic seeds and seedlings of forest trees, SDG 13 (13.2), 15 (15.b). 4.1.4.2 Encourage afforestation, additional planting, filling and care for coppice forests and shrubs in planned sites, where forests is needed for generally beneficial purposes and functions thereof, SDG 13 (13.2), 15 (15.b). 4.1.4.3 Increase resilience of forests to climate change, fire and other threats, SDG 13 (13.1), 15 (15.b). 4.1.4.4 Increase level of wood product finalization and reduce export and consumption of wood in form of logs, cut timber and other wooden products of low finalization level, SDG 12 (12.2).		- Increased wood supplies in forests - Established preventive system for combat against forest fires - Improved production of wooden and non-wooden products and services in forest eco-systems

THEMATIC AREA

4. ECONOMIC RESOURCES - INTRODUCTION OF GREEN ECONOMY

STRATEGIC GOAL

4.2 IMPROVE RESOURCE EFFICIENCY IN KEY ECONOMIC SECTORS

INSTITUTIONS RESPONSIBLE

Leading institution(s): Ministry of Economy, Ministry of Agriculture and Rural Development, Ministry of Sustainable Development and Tourism, Ministry of Transport and Maritime Affairs

Institutions involved in implementation: Ministry of Finance, Ministry of Science, Ministry of Education, Environmental Protection Agency, Statistical Office - MONSTAT, Institute for Standardization, Accreditation Body of Montenegro, local self-governments, companies, scientific and professional institutions and non-governmental sector, Chamber of Economy of Montenegro

MEASURES	SUB-MEASURES	INDICATORS	TARGET TO BE ACHIEVED BY 2030
4.2.1 Improve resource efficiency by introducing market-oriented measures, i.e. economic instruments into key sectors of economy, SDG 6 (6.3), SDG 7 (7.1, 7.2, 7.3), SDG 9 (9.1, 9.4), SDG 11 (11.6), SDG 12 (12.b, 12.c), SDG 15 (15.5)	4.2.1.1 Reassess award of subsidies, i.e. financial support to polluters and consumers of natural resources awarded in forms of grants, loans, tax relieves, tax exemptions, acceleration of environmental protection amortization and so on, including SDG 12 (12.c):	- SDG 8.4.1 Material footprint (MF), material footprint per capita, and material footprint per GDP - SDG 8.4.2 Domestic material consumption (DMC), domestic material consumption per capita, and domestic material consumption per GDP - NIE83 Domestic material consumption (DMC) - SDG 7.1.2 Proportion of population with primary reliance on clean fuels and technology - SDG 7.2.1 Renewable energy share in the total final energy consumption - SDG 7.3.1 Energy intensity measured in terms of primary energy and GDP - SDG 9.2.2 Manufacturing employment as a proportion of total employment - SDG 9.3.1 Proportion of small-scale industries in total industry value added to financial services, including soft loans and integration thereof in value and market chains - SDG 9.3.2 Proportion of small-scale industries with a loan or line of credit - SDG 8.9.1 Tourism direct GDP as a proportion of total GDP and in growth rate - SDG 8.9.2 Number of jobs in tourism industries as a proportion of total jobs and growth rate of jobs, by sex - SDG 12.b.1 Number of sustainable tourism strategies or policies and implemented action plans with agreed monitoring and evaluation tools - SDG 12.c.1 Amount of fossil-fuel subsidies per unit of GDP (production and consumption) and as a proportion of total national expenditure on fossil fuels - SDG 17.7.1 Total amount of approved funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies - SDG 12.3.1 Global food loss index	- Reduced DMC by 20% by 2020 in relation to average for 2005 -2012 - Resource productivity in 2020 increased by 60% compared to 2013, and in 2030 by 103.8% - Resource productivity in servicing sector increased by 164.6% in 2020 compared to 2013 - Resource productivity in agriculture and fishery increased by 93.6% by 2020 compared to 2013 - Resource productivity in energy sector increased by 158.4% in 2010 compared to 2013 - Resource productivity in processing industry increased by 9.7% in 2020 compared to 2013 - Resource productivity in servicing sector increased by 164.6% in 2020 compared to 2013 - Resource productivity in construction increased by 164.6% in 2020 compared to 2013 - Eliminated environmentally unfriendly subsidies - Defined methodological monitoring of budget expenditures for environmental measures and resource efficiency (subsidies), showing gradual growth - Implemented environmental fiscal reform with specific focus on areas of energy, construction and housing, agriculture, transport, industry and tourism - Efficient calculation and earmarked spending of budget and local revenues gained from environmental and fiscal reform - Proportion of environmental taxes over total taxes increased - Increased agricultural budget for green subsidies - Integrated funds for the support to green entrepreneurship from domestic and international sources
	4.2.1.2 Implement environmental fiscal reform with a specific focus on energy, construction and housing, agriculture, transport, industry and tourism, SDG 7 (7.1, 7.2), 9 (9.1, 9.4), 12 (12.c):		

		- tourism sector: encourage tourism greening and improvement of resource efficiency through support to green investments into hotel and catering capacities, as well as into water supply and waste management capacities in the construction thereof; reduce quantities of waste from touristic activities and improve management of the existing waste; protect sensitive ecosystems from touristic development impacts; stimulate introduction of new green technologies in tourism, encourage preservation of destination attractiveness in long run, including non-technological innovations through environmental management, marketing, new business or organizational forms; improve regulations in markets where pricing signals are not efficient (creation of better pricing signals and market instruments which will enable reduction of costs incurred due to negative environmental externalities); introduction of green public procurements to encourage development of green innovations (reference to 4.5), SDG 6 (6.3), 7 (7.3), 11 (11.6), 12 (12.b), 15 (15.5); - industry and SME sector: incentives for modernization of production through introduction of cleaner technologies and increased energy efficiency, increased degree of sustainable production finalization, quality and environmental management systems, with changed and improved production assortment, stimulative measures for the development of green entrepreneurship.	
4.2.2	Improve resource efficiency by introducing regulatory instruments, SDG 11 (11.1, 11.3), SDG 12 (12.1, 12.2, 12.7)	4.2.2.1 Establish emission instruments for the reduction of DMC indicators per sector, SDG 11 (11.1, 11.3), 12 (12.1, 12.2, 12.7): energy: set emission, technological and other standards and foster greater observance thereof, construction: reduce quantities of construction and demolition waste; recycle landfilled construction and demolition material; recycle asphalt, concrete and other recyclable materials; apply recommendations about building construction with minimal emissions; set criteria in contracts on procurement (for greater use of construction materials with low environmental impacts); set minimal standards for buildings (in compliance with the EU standards for energy performance of buildings focusing on energy efficiency at the same time), agriculture: set standards to ensure higher resource efficiency; set standards for the reduction of consumption of mineral fertilizers and plant protection products in fodder growing; observe good agricultural practice code, tourism: set standards for investments into more energy efficient elements in hotels and catering and hospitality facilities; introduce technological innovations for water savings; reduce waste generation in touristic activities; improve management of the existing waste; improve waste recycling in this sector. 4.2.2.2 Introduce other regulatory instruments which include ambient standards (used to determine quality of air, water and soil, which must be enabled), technological standards (used to specify which technology must or must not be used), process management and standards (used to specify certain behavior and in what manner certain economic activity can be exercised), product and service standards (used to specify certain properties of products and services which must be met), as well as obligations and responsibilities for environmental protection, environmental control and monitoring of the enforcement of introduced standards, SDG 12 (12.1). 4.2.2.3 Strengthen use of accredited bodies for appropriate assessment (testing laboratories, control bodies, certification bodies) in order to increase resource efficiency in key economic sectors, SDG 12 (12.1).	- Introduced emission standards to be used to specify levels of allowed gas emissions in quantitative terms - Introduced ambient standards - Introduced technical standards - Introduced process management and standards - Introduced product and service standards

4.2.3 Incite research and development in the area of resource efficiency and development of human resources, SDG 2 (2.a),SDG 8 (8.3),SDG 12 (12.1,12.a, 12.c), SDG 17 (17.3, 17.6, 17.16, 17.17)	4.2.3.1 Increase investments into research and development, especially in the area of energy, but also in agriculture and food processing industry; support application of innovative solutions which reduce consumption of resources in sectors of production and services, SDG 2(2.a), 8 (8.3), 12 (12.a): - Introduce economic instruments for encouragement of research and development activities and strengthen capacities of scientific and research institutions (strengthen connections between research centers and companies), SDG 12 (12.a, 12.c), - Increase investments into research by associating funds from the state budget, grants, loans and private sector funds to incite research and development, especially in the area of resource efficiency and human resource development, SDG 12 (12.1), 17 (17.6, 17.16, 17.17), - Establish centers of excellence; - Finance large collaborative research grants, focused on strengthening of successful research teams, internationalization and connecting the research and economy, - Establish and develop scientific-technological parks and innovation-entrepreneurship centers (reference 1.3.3.4 and 2.4.1.4); 4.2.3.2 Improve availability and use of national and EU funds for research and innovations, with gradual growth of these expenditures in private sector, SDG 17 (17.3).	- SDG 9.5.1 Research and development expenditure as a proportion of GDP - SDG 9.5.2 Researchers (in full-time equivalent) per million inhabitants - SDG 12.a.1 Amount of support to developing countries on research and development for sustainable consumption and production and environmentally sound technologies - SDG 17.6.1 Number of science and/or technology cooperation agreements and programmes between countries, by type of cooperation - SDG 9.b.1 Proportion of medium and high-tech industry value added in total value added	- Increased budget for the support to research and development projects in the area of resource efficiency - Participation of Montenegro in the Union programs for research and development which mainly promote resource efficiency about sustainable environmental management - First scientific-technological park (STP) established within the campus of the University of Montenegro with participation of all Montenegrin universities and tertiary education institutions (with growing number in STP membership, both from tertiary education institutions and from companies; Growing number of staff in STP); - Innovation-entrepreneurship centre "Tehnopolis"; - Number of centers of excellence in Montenegro and number of applications for international cooperation programs in the area of research and development - Established national reference laboratories for environmental and human health-related tests, included in the NIR institutions system
4.2.4 Improve availability of information about the value of natural resources, resource efficiency and phase them into systems for calculation of economy successfulness, SDG 12 (12.8, 12.a), SDG 17 (17.14)	4.2.4.1 Introduce regular statistical tracking of indicator s for the domestic material consumption and resource productivity not later than 2017 (strengthening capacities in competent institutions and publishing set resource efficiency indicators), SDG 12 (12.8, 12.a) 17 (17.14). 4.2.4.2 Improve methodology for resource valuation (integration of information about resource value in the decision-making process related to e.g. public expenditures or about development projects, etc.), SDG 17 (17.14.), 4.2.4.3 Determine concessions for use of natural resources so as to reflect their real value, including degradation costs, SDG 17 (17.14). 4.2.4.4 Promote and create ambient for the development of green innovations in all sectors of economy, especially in energy, transport, construction, industry, agriculture and services (tourism), SDG 17 (17.14).	- SDG 8.9.1 Tourism direct GDP as a proportion of total GDP and in growth rate - SDG 17.18.1 Proportion of sustainable development indicators produced at the national level with full disaggregation when relevant to the target, in accordance with the Fundamental Principles of Official Statistics	- National list of indicators updated - DMC and RE indicators included in working program of the Statistical Office MONSTAT (annual statistical research plan) - Level of concessions for use of natural resources integrates degradation costs - Improved availability of data to all end-users, including facilitated access and intelligibility
4.2.5 Promote resource efficiency and valuation of limited resources, SDG 2 (2.3,2.4), SDG 12 (12.2, 12.a, 12.b), SDG 13 (13.3),SDG 17 (17.14)	4.2.5.1 Promote the importance of resource efficiency and valuation of limited resources through educational campaigns and innovations of curricula at all educational levels, SDG 13 (13.3), 17 (17.14). 4.2.5.2 Promote programs for creation of detailed resource efficiency plans so as to encourage integrated approach to production and consumption of energy, water, natural materials and waste (transfer of good practice from the energy sector to companies with regard to implementation of programs focused on resource efficiency, especially in various technical assessments, identification of possibilities for resource efficiency, capacity building program and awareness raising about energy efficiency, etc.), SDG 12 (12.2). 4.2.5.3 Promote and apply instruments for energy efficient design and construction and more resource efficient use of construction material, SDG 12 (12.2). 4.2.5.4 Promote standards to ensure higher resource efficiency in agriculture, including reduction of consumption of mineral fertilizers and plant protection products in fodder growing, and promote more intensive grazing practice, SDG 12 (12.2, 12.a), 2 (2.3, 2.4). 4.2.5.5 Promote and develop forms of tourism based on the nature and interest of companies to recognize interest in tourism greening, SGD 12 (12.b, 12.2).	- SDG 12.b.1 Number of sustainable tourism strategies or policies and implemented action plans with agreed monitoring and evaluation tools	- Organized public awareness raising programs - Developed and promoted resource efficiency programs for big energy consumers - Provided funds for all stipulated activities

4.3 IMPROVE WASTE MANAGEMENT THROUGH CIRCULAR ECONOMY APPROACHES

Leading institution(s): Ministry of Sustainable Development and Tourism

INSTITUTIONS RESPONSIBLE

Institutions involved in implementation: Environmental Protection Agency, Ministry of Economy, Ministry of Agriculture and Rural Development, Ministry of Transport and Maritime Affairs, Ministry of Science, Ministry of Education, Statistical Office - MONSTAT, local self-governments, companies, professional and scientific institutions and non-governmental sector

MEASURES	SUB-MEASURES	INDICATORS	TARGET TO BE ACHIEVED BY 2030
4.3.1 Encourage activities on reduction of waste quantities generated in the territory of Montenegro, SDG 11 (11.6), 12 (12.5), SDG 17 (17.3, 17.4, 17.14).	4.3.1.1 Fully implement key strategic documents in the area of sustainable waste management, including obligations defined in the Law on Waste Management, Action Plan for implementation of the Waste Management Strategy of Montenegro by 2030, National Waste Management Plan of Montenegro for the period 2015-2020; (reference 3.2.6.5), SDG 12 (12.5), 17 (17.3, 17.4, 17.14).	- SDG 11.6.1 Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities	- Significant reduction of waste quantities to be finally disposed (reduction of average annual growth rate for generated waste to 1.5% by 2030 in LSU with estimated population growth; in municipalities with decreasing population there is no increase in quantities of generated waste). - Total quantity of generated municipal waste reduced - Reduced total quantity of generated construction and demolition waste - Enabled collection of the entire quantity of generated waste (95% to 100%) - Provided and realized funds for investment activities in accordance with the National Plan; Waste management infrastructure fully constructed by 2025.
	4.3.1.2 Evaluate in details quantities of waste which will be generated in the forthcoming period, SDG 12 (12.5).	- SDG 12.4.2 Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment	
	4.3.1.3 Implement the investment plan in the area of waste management in accordance with optimal scenario recognized in the National Waste Management Plan for the period 2015-2020 and Waste Management Strategy by 2025, including two so far constructed landfills for solid waste in Podgorica and Bar and possibility to construction a centre for thermal treatment of waste (reference 3.2.6.5), SDG 12 (12.5).	- SDG 12.4.1 Number of parties to international multilateral environmental agreements on hazardous waste, and other chemicals that meet their commitments and obligations in transmitting information as required by each relevant agreement	
	4.3.1.4 Improve organized waste collection system in the entire territory of Montenegro specifically giving importance to measures for reduction of quantities of waste disposed in compliance with the National Waste Management Plan, e.g.: construction of sorting plants for selection and compressing of selected waste after the primary selection; construction of transfer stations for the reception, compression, pressing of non-selected municipal waste, along with the control of contents of the delivered waste; encouraging household composting, phasing in the system for collection of fees for waste disposal based on disposed quantities, SDG 12 (12.5).	- NIE36 MORT, Annual waste generation growth rate (in LSU with estimated population growth)	
	4.3.1.5 Introduce the system for mandatory recording of types and quantities of collected waste (primary and secondary selected waste, waste delivered to landfills, in the future to the facility for thermal treatment of waste), SDG 12 (12.5).	- NIE32 MORT, Quantity of generated industrial waste	
	4.3.1.6 With regard to the existing system for the collection of waste management fees (Regulation on detailed criteria, amount and manner of payment of special fees for waste management, Official Gazette of Montenegro, no. 39/12), a system of new, more rational and objective economic instruments (fees and penalties) should be introduced through the Ecofund, so as to, e.g.: change the manner for calculation of services related to waste removal (fee for waste removal per m ²), adjusting the relevant international practice to national circumstances so that methodology for determination of tariffs is equivalent to service quality, but also to make it economically reasonable in terms of investments, costs for amortization of equipment, labor, waste management, etc; introduce innovative approaches for application of certain types of fees (e.g. service on call, i.e. renting of containers by utility company along with the application of economic fees for the collection of demolition rubble or waste generated in cleaning and shaping green areas), SDG 12 (12.5).	- NIE33 MORT, Collected waste in relation to total generated waste (quantity of treated and disposed municipal waste in relation to total quantity of generated municipal waste)	
	4.3.1.7 Introduce GIS applications with the aim to monitor status in the area of waste management and improve database about municipal and other waste types in Montenegro, SDG 12 (12.5).	- NIE32 MORT, Proportion of processed industrial waste	
	4.3.1.8 Strengthen capacities in utility companies conducting utility-related activities in all municipalities, in accordance with the reform for the improvement of utility services quality, but also for the increase of competitiveness in the area of water supply and waste management, SDG 6 (6.b), 12 (12.5), 11 (11.6), 17 (17.14).	- NIE35 MORT, Percentage of collected waste material (glass, paper, metal and plastic) prepared for re-use and recycling	
	4.3.1.9 Consider possibilities of associated action model where several LSUs act jointly in the waste management system, SDG 12 (12.5).	- NIE36 MORT, Percentage of non - hazardous construction waste prepared for re-use	
		- NIE37 MORT, Quantity of secondary selected waste components	
		- NIE38 MORT, Number of recycling centers and recycling yards	
		- NIE39 MORT, Quantity of biodegradable municipal waste landfilled in relation to total quantity of biodegradable waste	
		- SDG 12.5.1 National recycling rate, tons of material recycled	

4.3.2 Establish efficient selection and recycling of waste SDG 12 (12.2, 12.5)	4.3.2.1 Construct infrastructure for primary and secondary collection of waste in accordance with the action plan defined in the National Waste Management Plan, which is a prerequisite for the establishment of re-use and recycling of discarded materials, SDG 12 (12.5). 4.3.2.2 A two-bin system - dry and wet - should be introduced within the primary selection system (shift from the collection of primary selected waste in several different containers, each one for certain type of waste components (glass, PET, metal, paper), to the “two-bin” principle for separate collection of dry and wet fraction of waste; organize collection of the so-called “dry” fraction of waste (packaging waste) in rural settlements (activities related to primary separation in rural settlements are conducted in parallel to the inclusion of rural settlements into organized waste collection system), SDG 12 (12.5). 4.3.2.3 Construct infrastructure for recycling of collected waste so as to get raw materials and secondary products in accordance with the action plan defined in the National Waste Management Plan (recycling centers with MRF plants, recycling yards with sorting line), SDG 12 (12.2, 12.5). 4.3.2.4 Establish mobile and as much as possible emission responsible (with regard to emissions of air pollutants) waste collection system, SDG 12 (12.5). 4.3.2.5 Enable efficient waste collection in rural settlements, SDG 12 (12.2, 12.5). 4.3.2.6 Provide big generators of packaging waste (shopping malls, supermarkets, department stores, hotels and other catering and hospitality facilities, administrative buildings, schools, graveyards, etc.) with the collection equipment of greater capacities (7 m3 containers, press containers etc.), SDG 12 (12.2, 12.5). 4.3.2.7 In accordance with the EC recommendations and measures referred to in the National Waste Management Plan, introduce the principle of extended producer and waste importer's responsibility, with introduction of stimulative lower fees for waste generators, owners and importers who will be involved in organized system of collection, taking over and treatment of special waste types, SDG 12 (12.2, 12.5). 4.3.2.8 Introduce stimulative measures for strengthening of secondary raw materials market and demand for recyclables, including introduction of schemes for the collection of recyclable materials, SDG 12 (12.2, 12.5).		- Primary selected up to 20% of total collected glass, 40% of collected plastic, 40% of PET packaging, 30% of paper and cardboard, 35% for heavy and non-ferrous metals each, up to 55% of total collected construction material from municipal waste, 55% of green waste, 9% of tires, 14% of composite packaging and 22% of other waste - Increased quantity of secondary selected waste components to 25% - Achieved level of preparation for re-use and recycling of at least 50% of total quantity of collected components - Increased quantity of recycled and re-used waste (achievement of high recycling rates), including recycled industrial waste - By 2025 completed construction of infrastructure for recycling in accordance with the National Waste Management Plan and Waste Management Strategy
4.3.3 Develop a system for special waste streams management, SDG 12 (12.2, 12.4, 12.5)	4.3.3.1 In compliance with the National Waste Management Plan, establish a system for special waste streams management (e.g. waste batteries and accumulators, used tires, end-of-life vehicles, waste electric and electronic equipment, packaging waste and construction and demolition waste), as well as for management of veterinary waste and animal by-products, medical and pharmaceutical waste, SDG 12 (12.2, 12.4, 12.5). 4.3.3.2 In compliance with the National Waste Management Plan, establish a system for hazardous waste management, including marking of sites where hazardous waste is stored and construction of storages for temporary storing of hazardous waste, SDG 12 (12.2, 12.5). 4.3.3.3 Organize replacement of asbestos-containing materials wherever possible and establish a system for organized collection of asbestos-containing waste, SDG 12 (12.2, 12.5). 4.3.3.4 Introduce best available approaches for organic waste treatment (e.g. anaerobic digestion, mechanical-biological waste treatment, and so on). 4.3.3.5 Create possibilities and encourage use of waste as alternative fuel in the future, SDG 12 (12.2, 12.5). 4.3.3.6 Promote maximally possible use of construction and demolition waste, SDG 12 (12.2, 12.5).		- Developed system for special waste streams management including hazardous waste management, as well as infrastructure for special waste streams and hazardous waste treatment in accordance with the National Waste Management Plan and Waste Management Strategy
4.3.4 Gradually introduce approaches of circular economy into the waste management practice (shift from a “landfill system” to circular waste management system) SDG	4.3.4.1 Through implementation of measures encouraging resource efficient use of raw materials in production enable reduction of generated waste, especially of hazardous waste, SDG 12 (12.2, 12.5). 4.3.4.2 Through application of approaches based on recognition of economic and environmental importance of waste, waste should be treated as an important material input: re-use, recycle and recover waste material so as to reduce adverse environmental impacts thereof through recycling or energy recovery; reduce GHG emissions from waste replacing biotic materials with recycled waste, as well as using waste instead of fossil fuels for energy generation, SDG 12 (12.2, 12.5). 4.3.4.3 Use waste as alternative fuel in the future, applying measures defined in the National Waste Management Plan, SDG 12 (12.2, 12.5).		

12 (12.2, 12.5), SDG 17 (17.13, 17.14, 17.18, 17.19)	4.3.4.4 Through implementation of measures encouraging resource efficient use of raw materials in production enable reduction of generated waste, especially of hazardous waste: promote and encourage product design which enables durability and is more suitable for dismantling and adaptation (companies should apply principles of eco-design to their products, such as minimal use of non-renewable resources, elimination of toxic and harmful substances as much as possible, use renewable resources at the level or below the level of their regeneration; increase lifetime of products and potentials for their re-use, and finally facilitation of sorting and recovery of products in final phase of the use thereof); encourage modern circular and regenerative forms of consumption; encourage cross-sectoral approach and cooperation between different actors in the entire supply chain in order to optimize product life cycle, SDG 12 (12.2, 12.5). 4.3.4.5 Conduct macro analysis and sector analysis for the material flow - MFA - so as to enable tracing of physical unit flow (usually expressed in tons), i.e. analysis of the entire supply chain for processing of natural materials, extraction, transformation, processing, consumption, recycling and landfilling thereof with introduction of three groups of indicators - direct material input (DMI), domestic extraction units (DEU), total material requirement (TMR); output indicators - domestic processes output (DPO); trade indicators - physical trade balance (PTB), net additional supplies (NAS), including the drafting of input-output tables necessary for reliable diagnostics of material flow of Montenegro (it is currently derived from the DMC calculation, with a range of limitations), SDG 17 (17.13, 17.14, 17.18, 17.19).		- Completed transition from the linear to circular waste management model. - Introduced material flow analysis and related circular economy indicators
4.3.5 Improve application of penalty policy into waste management system and raise public awareness about the importance and advantages of sustainable waste management SDG 6 (6.b), SDG 12 (12.6, 12.8), SDG 17 (17.14, 17.19)	4.3.5.1 Improve application of penalty provisions defined in regulations on waste management. 4.3.5.2 Improve relation between utility companies and population through more intensive activities of these enterprises in inciting more active participation of population, SDG 12 (12.8). 4.3.5.3 Ensure socially beneficial business of public utility companies, SDG 12 (12.6). 4.3.5.4 Improve reporting from official institutions about quantities of generated waste, SDG 12 (12.8), 17 (17.19). 4.3.5.5 Raise public awareness about the importance of proper waste management and involve public into decision-making process, SDG 6 (6.b), 12 (12.8), 17 (17.14). 4.3.5.6 Promote the adoption of adequate behavior patterns of individuals in respect to reduction of waste generation, understanding the importance of re-use of waste and purchase of products made of recyclable materials, and importance of waste separation of recycling purposes, as well as awareness raising about the need for more responsible waste disposal, etc. SDG 12 (12.8), 17 (17.14). 4.3.5.7 Educate waste generators about their obligations resulting from the Law on Waste Management, SDG 12 (12.8). 4.3.5.8 Continually intensify public awareness raising about the models for sustainable waste management through campaigns and tribunes, information through media, organizing actions for the collection of certain waste types, eco-camps, different attractive campaigns, including cross-border cooperation projects in this area, SDG 12 (12.8).		- Organized public awareness raising programs - Established in particular cross-border cooperation in waste management - Higher absorption of the EU funds for educational and awareness raising campaigns

THEMATIC AREA	4. ECONOMIC RESOURCES - INTRODUCTION OF GREEN ECONOMY
STRATEGIC GOAL	4.4 ENABLE SUSTAINABLE MANAGEMENT OF THE COASTAL REGION RESOURCES AND ENCOURAGE THE BLUE ECONOMY

Leading institution(s): Ministry of sustainable development and tourism; Ministry of agriculture and rural development;

Institutions involved in implementation: Environmental Protection Agency, Ministry of the economy, Ministry of transport and maritime affairs, Ministry of science, Ministry of education, local self-governments of coastal municipalities, economic subjects, professional and scientific institutions and non-governmental sector, Chamber of Commerce of Montenegro

INSTITUTIONS RESPONSIBLE

MEASURES	SUB-MEASURES	INDICATORS	TARGET OUTCOMES TO BE ACHIEVED BY 2030
4.4.1 Preserve the attractiveness of coastal area for the development of sustainable tourism SDG 12 (12.2, 12.b), 14 (14.2), 17 (17.4)	4.4.1.1 Through the improvement of strategic documents and regulations which regulate economic activities, drafting of spatial plans and implementation of more efficient tax and land policy measures, and coordinated activities in the sector of tourism and spatial planning, SDG 14 (14.2), 17 (17.4):	- SDG 8.9.1 Tourism direct GDP as a proportion of total GDP and in growth rate - SDG 12.b.1 Number of sustainable tourism strategies or policies and implemented action plans with agreed monitoring and evaluation tools	- Increased direct contribution to gross domestic product of travel sector and tourism - Increased profitability of tourism
	- Limit further urbanization of narrower coastal belt to the capacities which have function to improve structure and quality of tourist offer, i.e. tourism capacity construction put in the function of generating positive effects on the tourist offer - Support the development of tourist capacities which enable the season extension and raise the quality of sustainable tourist offer (primarily accommodation objects – hotels, mix use resorts having ancillary facilities etc) - Discourage further development of secondary accommodation capacities (apartments etc) - Improve tourist activities on the coast itself (organization of bathing areas, coastal infrastructure, sport-recreational activities etc).	- SDG 8.9.2 Number of jobs in tourism industries as a proportion of total jobs and growth rate of jobs, by sex - NIE28 MSDT, Proportion of primarily tourist capacities in total capacities - NIE39 MSDT, Average annual occupation in primarily capacities (in %) - NIE40 MSDT, Number of family husbandries involved in the tourist offer - NIE41 MSDT, Proportion of family husbandries included in tourist offer where carriers are younger than 40 (young farmers)	- Local values, landscape and natural, sustainable spatial development and rural development of hinterland shaped to be recognizable and specific as tourist product of Montenegrin coastal area
	4.4.1.2 Through spatial planning process valorize local values (architectonic, urban, landscape and other) in order to shape tourist areas. Encourage qualitative equipping and construction of tourist capacities in accordance with natural and landscape values (implement traditional forms of coastal architecture). Also, enable the preservation of little number of natural beaches with their specificities as the lasting value and coastal area resource, SDG 12 (12.b).	- SDG 11.3.1 Ratio of land consumption rate to population growth rate - SDG 11.3.2 Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically	
	4.4.1.3 Encourage integration of rural hinterland in the coastal area in the tourist offer (tourist centers offer) through, SDG 12 (12.2):	- SDG 11.a.1 Proportion of population living in cities that implement urban and regional development plans integrating population projections and resource needs, by size of city - SDG 11.7.1 Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities - NIP45 MSDT, Construction indicator (%) - NIP 46 MSDT, Planned construction indicator (%) - NIP 47 MSDT, Indicator of utilization of CL within GUR (%) (%) - NIP 48 MSDT, Indicator of utilization of CL outside the GUR (%) - NIP 49 MSDT, Proportion of construction areas in relation to total coastal areas - NIP 50 MORT, Proportion of construction areas in the strip of 1km from the coastline (in width)	
	- Including elements of „traditional“ rural way of life (traditional handicraft and gastronomy, agricultural products) in multiannual and excursion tourist programmes - Enriching tourist offer with programmes for visiting cultural heritage and rich landscape areas which until now have been less accessible to the visitors, i.e. hidden in the hinterland of the coastal areas - Renewing existing objects in the hinterland of the coastal area for offering services.	- NIE23 T01, EPA, Tourist arrivals - NIE24 T02, EPA, Tourist overnights - NIE25 T03, EPA, Tourist intensity: Number of beds and utilization capacity rate - NIE26 T04, EPA, Number of tourist at cruising voyages	
	4.4.1.4 Establishing and improving differentiation of the tourist products which is based on local resources, through the development of sustainable tourist forms, primarily adventurous, educational, cultural, gastro, ethno, religious, nature-based tourism and other, SDG 12 (12.2).		

4.4.2	Renew and preserve valuable rural areas SDG 8 (8.2), 10 (10.2, 10.7), 12 (12.2), 14 (14.5)	4.4.2.1 Contribute to the resource efficiency in the sector of agriculture by offering support to the market-interesting and profitable agricultural products, inter alia, SDG 8 (8.2), 12 (12.2), 14 (14.5): - Harmonizing legislation with EU regulations and standards, in accordance with the Strategy for agricultural development and rural areas and corresponding action plan - Eliminating legal obstacles for smooth performing of tourist activities in rural areas as additional activity to the agriculture - Taking into account quotas for certain products which will be determined when open negotiations with EU in the sector of agriculture - Discouraging conversions of agricultural land, i.e. harmonizing urbanization with natural conditions and potential for agricultural development through spatial-planning solutions, implementing the measures of land and tax policies and supporting measures - Preserving cultivated olive groves and terraced surfaces which represent one of the basic elements for recognition and specificity of special agricultural areas important for preservation of cultural heritage (including typical rural architecture) and nature of classification, since the implementation of traditional approaches in cultivation is a precondition for preservation of that type of agricultural areas (olive groves in Valdanos and Luštica; traditional agricultural areas on numerous sites) - Establishing unique spatial database on agricultural areas solvency, - Continuous improvement of agricultural areas characteristics (reclamation, drainage and wetland drainage where this does not conflict with biodiversity goals, chemical reclamation of salinated parts of field, irrigation, enlargement of areas where the fragmentation of plots disables efficient production etc.) - Introducing direct green payments to farmers in accordance with the principles of EU Common agricultural policy in order to recover, preserve and improve coastal ecosystems related to agriculture - Implementing agro-ecological measures (organic agriculture, cultivation of indigenous species of crop and livestock breeds, use of mountain pastures etc.) aimed at adaptation of agriculture to climate changes - Supporting management of: rural infrastructure – in addition to basic (roads, water and electricity supply) including also recreational facilities, internet network access, radio and TV signal, waste management infrastructure in rural areas etc. - Providing incentives for establishing clusters and/or mutual models for producer organizations, - Encouraging innovative products and retail chains, including improvement of local food and non-food product placement. 4.4.2.2 Increase rural development investments and strengthen husbandries and support realization of innovative approaches which increase employability, and with that population maintains at the countryside, especially young ones, through encouraging SDG 8 (8.2), 12 (12.2), 10 (10.2, 10.7): - Economic activities of countryside out of agricultural sector, primarily by enriching tourist offer with programmes of sustainable tourism in the hinterland based on sustainable valorization of outstanding natural values, protected areas, valuable forests - Agricultural activities in areas having less agricultural development potential or certain natural constraints mostly located at peripheral areas of the field, terraces and flats on flysch and karst grounds – areas between Bar and Ulcinj (Velje selo and sourandings, Mala Gorana and Velika Gorana, Pečurice), as well as region of Grbalj (Zagora, Krimovica, Kovači, Bigova) and Luštica (Klinci and sourandings, Gošići, Radovanići, Merdari), which are also known by traditional organization of the area, both life and agricultural, and which offer possibilities for breeding of small ruminants.	- SDG 8.9.1 Tourism direct GDP as a proportion of total GDP and in growth rate - SDG 2.4.1 Proportion of agricultural area under productive and sustainable agriculture - SDG 2.3.1 Volume of production per labour unit by classes of farming/pastoral/forestry enterprise size - NIE43 MARD, Amount of funds for the support to implementation of rural development projects	- Rural development supports preservation of valuable agricultural areas, nature and landscapes, connection of local communities' interests, creation of new jobs, preservation and affirmation of autochthonous cultural and historical values. - Increased the values of output in agriculture for 30–40% and employment in rural areas for around 10%

4.4.3	Support sustainable valorization and conservation of marine resources SDG 12 (12.2), 14 (14.1,14.2, 14.4, 14.5, 14.6, 14.c), 17 (17.14)	4.4.3.1	Determine potential of the open sea as to strengthen the blue economy sector activities (diversification of activities in the sector of mariculture, analyzing marine microorganisms, eg. application in Pharmaceutical industry), SDG 14 (14.2, 14.5).	-	SDG 14.b.1 Progress by countries in the degree of application of a legal/ regulatory/policy/ institutional framework which recognizes and protects access rights for small-scale fisheries	-	Diversified activities in the sector of fishery and mariculture
		4.4.3.2	Enhance productivity and ecological performances of fishery and mariculture sector through:	-	SDG 14.4.1 Proportion of fish stocks within biologically sustainable levels	-	Satisfying fishery and mariculture ecological performances
			Implementation of activities which enable fishery integration into tourist offer (e.g organized fishing as a part of the tourist offer using traditional ways of fishing, etc.) determining sustainable and ecologically acceptable locations for fishery and mariculture,	-	SDG 14.6.1 Progress by countries in the degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing	-	Modernized fishing fleet and farms, developed processing capacities.
			Mariculture development integration with other activities (e.g. protection of marine habitats and offering ecosystem services) within diversification of sustainable tourist offer,	-	NIE56 MONSTAT, Number of employees in the fishery sector		
			Implementation of efficient monitoring and implementation of international instruments for preventing illegal, unreported and non-regulated fishing, as well as elimination of fishing using illegal equipment,	-	NIE57 MARD, Participation of fishery support programe in the Agro-budget		
			Development of mutual measures and instruments for marine protected areas management (that includes protection measures of marine sensitive habitats and protection of specific endengerous spieces) and for restoration of resources in the sector of fishery and mariculture, SDG 14 (14.1, 14.4).	-	SDG 14.7.1 Sustainable fisheries as a percentage of GDP in small island developing States, least developed countries and all countries		
		4.4.3.3	Implement activities specified in the Strategy for fishery development (2015) related to: fleet and resources management, organization of market (mutual market organization with fishing products), structural measures, collection of data, implementation of management plans based on scientific knowledge, state assistance, inspection and control, as well as the implementation of international agreements, SDG 14 (14.4, 14.6), 12 (12.2), 17 (17.14).				
		4.4.3.4	By sustainable planning of the sea use implement environmental protection instruments (environmental impact assessment, strategic environmental impact assessment, assessment of eligibility, eco-system approach); best available practices and relevant international standards; minimize, where necessary eliminate, negative impacts of oil and gas research on marine biodiversity and reach good ecological status of the sea in accordance with requests of EU Framework directive on marine strategy; productivity and ecological performances of the sector of fishery and mariculture, as well as attractiveness of the sea and coastal area for tourism development. SDG 14 (14.c).				

THEMATIC AREA
4. INTRODUCTION OF GREEN ECONOMY
STRATEGIC GOAL
4.5 SUPPORT GREENING OF ECONOMY THROUGH THE DEVELOPMENT AND IMPLEMENTATION OF OPERATIONAL INSTRUMENTS OF SUSTAINABLE CONSUMPTION AND PRODUCTION
INSTITUTIONS RESPONSIBLE

Leading institution(s): Ministry of the economy, Ministry of agriculture and rural development, Ministry of transport and maritime affairs, Ministry of sustainable development and tourism

Institutions involved in implementation: Ministry of Finance, Ministry of science, Ministry of education, Environmental Protection Agency, Institute for standardization, Accreditation body of Montenegro, Metrological Institute, local self-governments

MEASURES	SUB-EASURES	INDICATORS	TARGET OUTCOMES TO BE ACHIEVED BY 2030
4.5.1 Develop and promote practice and solutions of sustainable consumption and production that support efficient use of natural resources and minimize environmental loads SDG 8 (8.4), 11 (11.b), 12 (12.2, 12.3), 17 (17.14),	4.5.1.1 In the sector of tourism take into account spatial, ecological, social and cultural components of destination: promoting eco-labels and certified schemes, implementing demanding ecological sustainability criteria (internationally verifying), constructing private sector capacities- tourist operator in promoting ecological values of Montenegro as a tourist destination, SDG 12 (12.2), 17 (17.14), 8 (8.4).	- SDG 2.3.1 Volume of production per labour unit by classes of farming/pastoral/forestry enterprise size - SDG 12.3.1 Global food loss index (GFLI-FAO) - SDG 14.6.1 Progress by countries in the degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing - SDG 14.a.1 Proportion of total research budget allocated to research in the field of marine technology - SDG 14.b.1 Progress by countries in the degree of application of a legal/regulatory/policy/institutional framework which recognizes and protects access rights for small-scale fisheries - SDG 14.c.1 Number of countries making progress in ratifying, accepting and implementing through legal, policy and institutional frameworks, ocean-related instruments that implement international law, as reflected in the United Nation Convention on the Law of the Sea, for the conservation and sustainable use of the oceans and their resources - SDG 14.5.1 Coverage of protected areas in relation to marine areas - NIE45, MARD, MSDT, Number of husbandries which, through rural development programmes, modernized production - NIE51, MARD, Number of producers having the status of organic producer - NIE49, MARD, Number of certified agricultural and food products (certified quality system; food safety; origin labels; geographic labels; labels of guaranteed traditional specialties) - NIE50, Chamber of Commerce of Montenegro, Number of agricultural products using the trade mark „Dobro iz Crne Gore“	- Introduced Sustainable consumption and production standards for key sectors (emissive, ambience, technological, organizational, product quality and service standards, etc.) - Increased revenue from tourism by promoting practice and solutions of sustainable consumption and production - Decreased space cooling and heating energy consumption - Controlled consumption of plant protection products in accordance with consumption standards in this field - Significant increase of organic production areas - Better waste water quality, as well as industrial air quality - Increased number of new and green working places - Improved vehicle structure by age and emission characteristics - Increased energy efficiency in transport - Increased approach to financial resources and SME capacity development for the implementation of resource efficient approach
	4.5.1.2 In the sector of civil engineering industry implement the best available techniques (BATs) and ecological practices (BEPs) for strengthening of resource efficiency in the process of planning and constructing objects, as well as during the object life-cycle, SDG 12 (12.2), 17 (17.14), 11 (11.b), 8 (8.4). 4.5.1.3 In agriculture, fishery and mariculture implement the best available techniques (BATs) and ecological practices (BEPs) in all stages of production (e.g. from crop to agricultural product consumption) through efficient source management, minimize environmental impact of food production, agriculture and fishery sector during product life-cycle; These activities also include: technological improvements and increase of efficiency in primary production and food industry; control of artificial manure and pesticides implementation; encourage incentives for growth of areas having organic production; extend knowledge and information on approaches for preservation of soil fertility; composting and use of bio-waste in agriculture; more intense incentives measures for the development of rural areas, reduction of food loss in food production and supply, SDG 12 (12.2, 12.3), SDG 8 (8.4). 4.5.1.4 In processing industry and mining implement the best available techniques (BATs) and ecological practices (BEPs) and the best ecological practices (BEPs) in entire chain of production including overall course of material and waste, devoting special attention to lifelong product life-cycle; furthermore, implement technologies and management processes in industry (modernization of the production, increase the level of finalization, introduce new technologies, system of quality and environmental management, with changes and improvement of production assortment); as well as introduce resource efficiency and innovations incentives, and the integration of damages caused by pollution and environmental degradation in a company's activities costs, SDG 12 (12.2), 8 (8.4). 4.5.1.5 In transport implement new technologies (low emissions vehicle, low fuel consumption, alternative fuels), promoting forms of transport convenient for the environment; define and implement incentives including tax exemptions; implement measures for minimize negative impacts of transport on the environment; recycle vehicles after the expiry of their lifetime, SDG 12 (12.2), 8 (8.4).		
4.5.2 Develop legal framework for sustainable consumption and production support SDG 2(2.a, 2.b, 2.c), SDG 12 (12.2, 12.7), 15 (15.6)	4.5.2.1 In tourism, SDG 12 (12.2): - In regulations include provisions which support integration of sustainable production and consumption principles; create eco-fees, eco-charges as efficient instruments for the internalization of costs in order to provide funds for improvement of destination quality and green activities - Promote implementation of tourism carrying capacity as obligatory in the development of tourism plans and projects, or as a precondition for approval of new investments in tourism - Develop practices which minimize pressure of tourism activities. 4.5.2.2 In civil engineering industry, SDG 12 (12.2):	- SDG 2.a.1 The agriculture orientation index for government expenditures - SDG 2.a.2 Total official flows (official development assistance plus other official flows) to the agriculture sector SDG 2.b.1 Producer support estimate - SDG 2.b.2 Agricultural export subsidies - SDG 2.5.2 Proportion of local breeds classified as being at risk, not-at-risk or at unknown level of risk of extinction	- Harmonized legislation with the EU standards in this field - Implemented Ecological tax reform - Redefined subsidiary system - Strengthened administrative capacities of institutions which are included in introducing, implementing

	- Implement instruments for sustainable spatial planning and green construction, especially taking into account efficient use of natural resources and energy consumption - Implement sustainable practices in civil engineering industry using domestic materials, implementing traditional knowledge and building skills, eco – friendly technologies and materials, sustainable waste management - Implement relevant techniques and improve knowledge on sustainable forms of maintenance of buildings and residence buildings - Promote practices of sustainable public procurements in civil engineering industry - Introduce codes and standards of sustainable and green construction. 4.5.2.3 In sector of agriculture, fishery and mariculture, SDG 2 (2.b), SDG 12 (12.2): - Promote installation of new equipment and further partial interventions (improvement / upgrade) on existing industrial facilities equipment - In rural development policy integrate sustainable production forms which have high industrial potential, generate revenues and increase employment and prevent migration from rural areas - introduce green subventions for food production and fishery, facilitate gaining loans, introduce fiscal instruments which favor sustainable practices in agriculture and fishery (e.g. those which eliminate harmful subsidies for energy and water consumption) and enable incentives for the implementation of good ecological practice and organ production - establish product quality control, harmonization of standards and certificates for the products obtained by sustainable production of food and , in the sector of fishery with recognizable international standards . - adopt measures for adequate functioning of food products and processed foodstuffs market and enable duly approach to the information on market, including information on food reserves in order to help limitations in extreme food prices change SDG 2 (2.c) - preserve local species and breeds of domestic animals - establish institutional and strategic framework, promote fair distribution of the benefits that come out of genetic resources use and promote adequate approach to those resources in accordance with relevant international agreements to which Montenegro acceded, SDG 15 (15.6), - increase investments in rural infrastructure, agricultural researches and expansion of services, development of technology and genbank of plants and livestock, inter alia through improved international cooperation, in order to improve agricultural production capacities, SDG 2 (2.a). 4.5.2.4 In processing industry, SDG 12 (12.2): - Encourage re-use, repair, recycling of products within the technology life cycle and in accordance to extended producer responsibility. This is especially relevant to creation of green working places within the waste management. - Promote and introduce calculation of total expenses and market-based instruments for products and services insomuch that encourage the use of energy from renewable resources,eco-innovations, green entrepreneurship and green jobs. - Promote and introduce sustainable public procurements (green public procurements); - Support companies in introducing EMAS and eco-labeling, substitution of harmful chemicals with more suitable products, getting necessary accreditations from Accreditation body of Montenegro,as well as the certificates, etc.; 4.5.2.5. Work out on green public procurement concept and support their integration in tendering processes, defining criteria where public procurement could be characterized as green (green public procurement concept as horizontal theme, but respecting specific criteria by sector), SDG 12 (12.7).	- risk of extinction - SDG 6.a.1 Amount of water- and sanitation-related official development assistance that is part of a government-coordinated spending plan - SDG 12.7.1 Number of countries implementing sustainable public procurement policies and action plans - SDG 14.a.1 Proportion of total research budget allocated to research in the field of marine technology - SDG 12.1.1 Number of countries with sustainable consumption and production (SCP) national action plans or SCP mainstreamed as a priority or a target into national policies - SDG 15.a.1 Official development assistance and public expenditure on conservation and sustainable use of biodiversity and ecosystems - SDG 17.2.1 Net official development assistance, total and to least developed countries, as a proportion of the Organization for Economic Cooperation and Development (OECD) Development Assistance Committee donors' gross national income (GNI) - SDG 15.6.1 Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits - SDG 12.a.1 Amount of support to developing countries on research and development for sustainable consumption and production and environmentally sound technologies - SDG 2.a.1 Directivity index on agriculture in budget revenues (FAO) - SDG 2.c.1 Indicator of food price anomalies - NIE42,MARD, MSDT, Share of agricultural areas in agriculture and rural development special assistance programmes (green payments, organic agriculture protected areas, areas having special natural values etc.) - NIE46,MARD, MSDT, Number of husbandries which fulfill the right on direct green payments - NIE44,MARD, MSDT, Number of developmental projects in rural areas initiated by local communities - SDG 12.7.1 Number of countries implementing sustainable public procurement policies and action plans - NIE64,Public Procurement Administration, Number of public procurement proceedings in which are included green criteria in public procurement proceeding documentation - NIE65, Public Procurement Administration, Number of integrated basic green public procurement criteria in public procurement processes in one years - SDG 17.17.1 Amount of United States dollars committed to public-private and civil society partnerships	- implementing and monitoring of sustainable consumption and production operational instruments execution - Greening of one third of total public procurements - Significantly increased percentage and number of contracts of public procurements which include green public procurement criteria - Incorporated energy efficiency criteria in public procurement
4.5.3 Podizati svijest i unapređivati znanja o održivoj proizvodnji i potrošnji SDG 12 (12.2, 12.8, 12.a, 12.b), 17 (17.17)	4.5.3.1 Promote eco-labeling, SDG 12 (12.2). 4.5.3.2 Develop and implement programmes for strengthening of capacities for tourist operators due to capacity improvement and awareness on the importance of adoption of sustainable consumption and production forms, SDG 12 (12.2, 12.b). 4.5.3.3 Strengthen private-public partnership for the introduction of BATs and BEPs, SDG 17 (17.17). 4.5.3.4 Prepare communication packages for target groups of service users, decision-makers on sustainable consumption and production forms, SDG 12 (12.2, 12.8).	- NIE65, Public Procurement Administration, Number of integrated basic green public procurement criteria in public procurement processes in one years - SDG 17.17.1 Amount of United States dollars committed to public-private and civil society partnerships	- Significantly increased the number of companies, by sector and size, that use advices on environmental improvements and resource efficiency growth

	4.5.3.5	Increase sensibility of public for sustainable production and consumption concepts and instruments in the function of economy which is green, resource efficient, circular, SDG 12 (12.2, 12.8).	
	4.5.3.6	Enhance knowledge, scientific and technological capacities in order to implement services and products sustainable consumption and production, SDG 12 (12.2, 12.8, 12.a).	

THEMATIC AREA	4.	ECONOMIC RESOURCES – INTRODUCTION OF GREEN ECONOMY
STRATEGIC GOAL	4.6	IMPLEMENT SOCIAL RESPONSIBILITY IN PRACTICE OF ALL SECTORS IN ACCORDANCE WITH POSITIVE EUROPEAN AND INTERNATIONAL EXPERIENCES

Leading subject: Ministry of sustainable development and tourism

INSTITUTIONS RESPONSIBLE	Institutions involved in implementation: Ministry of Finance, Environmental Protection Agency, Ministry of the economy, Ministry of agriculture and rural development, Ministry of transport and maritime affairs, Ministry of science, Ministry of education, local self-governments, companies, professional and scientific institutions and non-governmental sector

MEASURES	SUB-MEASURES	INDICATORS	TARGET OUTCOMES TO BE ACHIEVED BY 2030
4.6.1 Promote concept of social responsibility (SR) and rise the awareness on values and the importance of SR or benefits of organizations form the aspect of SR implementation SDG 12 (12.2, 12.6), 17 (17.9, 17.14) (Conn outcome 2.4)	4.6.1.1 Further strengthen institutional social responsibility framework, SDG 12 (12.6), 17 (17.9, 17.14). 4.6.1.2 Introduce SR educational programmes in the education system (introducing social responsibility in the educational system, subjects that are going to be selected, teaching unit in existing subjects etc.), SDG 17 (17.14). 4.6.1.3 Promote social responsibility concept and raise the awareness on values and the importance of social responsibility (through campaigns, researches, trainings at all levels), SDG 17 (17.14). 4.6.1.4 Create databases about the implementation of SR concept, SDG 12 (12.2, 12.6). 4.6.1.5 Identify and publicize examples of SR activities at the national level, SDG 12 (12.2, 12.6). 4.6.1.6 Provide support to the organizations that practice social responsible activities through social recognitions, awards and privileges, exemptions and subsidies , SDG 12 (12.6). 4.6.1.7 Promote international standards of social responsibility, such as UN Global Compact, OECD standards DOP and ISO 26000 standards, SDG 12 (12.6).	- SDG 12.6.1 Number of companies publishing sustainability reports	- Strengthened SR network (public and civil sector) - Innoveted educational programmes on different levels of education - Database on the implementation of SR concept and dissemination of information (civil sector) Number of companies that accessed UN Global
4.6.2 Strengthen SR implementation SDG 12 (12.6, 12.7), 17 (17.14) (Conn outcome 2.4)	4.6.2.1 Normatively and in practice strengthen the implementation of - Incentives for clean technologies introduction, sustainable consumption and production and social entrepreneurship - Eco and social labeling for products and services - Provisions on including social requests and environmental protection requests into public procurement procedures, SDG 12 (12.6, 12.7), 17 (17.14).		- Provided financial support for the national budget for SR activities at the national level;
4.6.3 Increase the number of companies that systematically implement SR principles in their activities and regularly inform in this respect SDG 12 (12.6) (Conn outcome 2.4)	4.6.3.1 Establish SR notification system, SDG 12 (12.6). 4.6.3.2 Introduce an obligation of annual reporting on social responsible activities of all companies (through inclusion in the part of non-financial reporting), SDG 12 (12.6). 4.6.3.3 Establish exceptional SR reporting system, SDG 12 (12.6). 4.6.3.4 Regulate system of independent accuracy verification and annual reports efficacy of companies SDG 12 (12.6).		- Significantly increased number of companies that have web presentation and publish reports on companies social responsibility and good practices (non-financial reporting)

THEMATIC AREA

4. ECONOMIC RESOURCES - INTRODUCTION OF GREEN ECONOMY

STRATEGIC GOAL

4.7 INCREASE MONTENEGRIN ECONOMY COMPETITIVENESS LEVEL FOR SUSTAINABLE DEVELOPMENT AND GREEN JOBS

INSTITUTIONS RESPONSIBLE

Leading institution(s): Ministry of the economy

Institutions involved in implementation : Ministry of Finance, Ministry of sustainable development and tourism, Ministry of agriculture and rural development, Ministry of transport and maritime affairs, Ministry of science, Ministry of education, Environmental Protection Agency, Investment and Development Fund, local self-governments, companies, Chamber of Commerce of Montenegro, professional and scientific institutions and non-governmental sector

MEASURES	SUB-MEASURES	INDICATORS	TARGET OUTCOMES TO BE ACHIEVED BY 2030
4.7.1 Encourage the competitiveness of Montenegrin companies through measures for stimulation of resource efficiency and investments SDG 8 (8.1, 8.2, 8.3, 8.5), 9 (9.2, 9.3), 17 (17.1, 17.3, 17.14)	4.7.1.1	Further strengthen financial support and introduce new financial instruments (e.g. on basis of IDF arrangements with EIB, and with possibilities offered by EU programmes such as COSME, IPA regional and national programmes), respecting resource efficiency investments criteria, or promote development oriented policies which support productive activities, opening of dignified jobs , entrepreneurship, creativity and innovations, encourage development of SMEs, inter alia through financial services access, SDG 8 (8.1, 8.2, 8.3), 9 (9.3), 17 (17.14).	- Significantly decreased administrative barriers for SME and entrepreneurial development in Montenegro - Increase of Montenegrin economy competitiveness significantly improved and presented with indicators such as GCI, DB, HF etc. - Investment support funds significantly increased green jobs
	4.7.1.2	Promote strengthening of SME competitiveness through offering services for business support and greening of economy, business counseling, mentoring (direct work in order to solve the problems and planning of future activities, respecting resource efficiency principles), support to the improvement of entrepreneurial learning, improvement of export and women entrepreneurial, SDG 8 (8.3, 8.5).	
	4.7.1.3	Strengthen communication of departments and agencies included with private sector by providing information for SMEs establishment and doing business, courses, trainings and other ways of support to start-ups, SDG 8 (8.3),	
	4.7.1.4	Strengthen administrative capacities for innovation and implementation of SME policy, as well as for efficient use of the EU funds of support, SDG 17 (17.9, 17.14).	
	4.7.1.5	Within direct investment incentives, promote investments that enhance resource efficiency and promote green jobs, SDG 9 (9.2), 17 (17.1, 17.3, 17.14).	
4.7.2 Strengthen local entrepreneurial infrastructure and business ambient for entrepreneurship and SME development SDG 8 (8.3, 8.4, 8.10)	4.7.2.1	Strengthen capacities for offering technical assistance to entrepreneurs and SMEs (especially women entrepreneurship and family business) due to encourage innovative, green and rural development project, through, SDG 8(8.3): existing services for technical support capacity assessment specialization of consultants and strengthen capacities of chamber of crafts training for preparation (e.g. through EU support programmes) and monitoring of development projects implementation.	- Realized rural green entrepreneurial projects and producers successfully work - Growing number of employees, especially young ones - Share of non-formal employment decreased - Significant number of national, local and tourist business zones put into operation - Through green investments in strategic sectors for SME support, dozen of new companies established, and significant number of green jobs created, with growth of SME investments into innovations of 10%, as well as significant growth of export - Growth of number of SMEs where the dominant activity is information society services, within business zones, affirming the importance of ICT sector on the GDP growth - Encouraged the increase of tourist investments by the measures of fiscalization
	4.7.2.2	Offer direct support to entrepreneurs and other carrier of „green“ development through, SDG 8 (8.3): - Providing necessary information on conditions and possibilities for business idea development, existing and potential possibilities of financing support, as well as conditions for obtaining assistance in development and implementation of projects , - Development of knowledge and skills of project carrier for planning, preparing and project managing by drafting guidelines, organization of trainings, workshops and other training programmes for the implementation of innovating approaches, implementation of new knowledge and skills, - Planning and implementation of share of knowledge and experience programmes at regional and international level - Offering direct technical support in implementing projects.	

	4.7.2.3 Support agricultural producers in practical implementation of new trends and ecologically responsible technologies (e.g. green and energy efficient construction, sustainable waste management, implementation of IT technologies), SDG 8 (8.4). 4.7.2.4 Development of business zones – national, local and tourist, their proclaiming, infrastructure equipment and putting into operation (through financial support for infrastructure equipment, improvement of promotion programme, tax and administrative exemptions at national and local level; introduce also additional exemptions for investors that invest in tourism in the north and continental region of Montenegro, and through the model of tourist developed zones (green investents in tourism);define the establishment, management and function models of national interest and define exemptions for potential investors by changing regulations; tourist zones to be arranged by special regulation, SDG 8 (8.3). 4.7.2.5 Strengthen incentives and tax exemptions in tourism, for the construction of high-category hotels and strengthen new forms of offer, and in accordance with sustainable development principles and strategic planning documents (reduction of investment repayment in high-category hotels from 20 to 12 years, and significant net positive influence on public finances well as to the growth of the employment), SDG 8 (8.3).		- High-category hotels and new forms of offer improved the quality of total tourist offer, achieved net effect on public finance and created significant growth of the employability
4.7.3 Initiate and realize incentive financing programmes due to enable better availability, accessibility and approach to finances for entrepreneurs and SMEs, especially for innovative and export-oriented companies SDG 8 (8.3, 8.10), 17 (17.9, 17.14)	4.7.3.1 Create preconditions for green banking development, first of all, through, SDG 8 (8.10): - Work with banking services in promoting green entrepreneurship market potentials - Partnerships and risk sharing of public entrepreneurial infrastructure and banks - Providing funds for pre-financing of projects that have possibility of EU funds pre-accession support - Public affirmation of green banks socially responsible conduct. 4.7.3.2 For particularly innovative and risky projects special programmes of non--refundable funds should be provided and maximum focus should be on absorption of funds available from EU funds, SDG 8 (8.3, 8.10, 17 (17.9, 17.14). 4.7.3.3 Continue with incentive policy for new direct investments in priority sectors, in accordance with sustainable development principles, focusing on investments in the northern region, SDG 8 (8.3).	- SDG 13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions - SDG 17.3.1 Foreign direct investments (FDI), official development assistance and South-South Cooperation as a proportion of total domestic budget - SDG 8.10.1 Number of commercial bank branches and automated teller machines (ATMs) per 100,000 adults	- Established incentive measures in the form of financial and technical assistance for the implementation of green projects - Increased the number of investment projects supported by direct investments incentive programme, increased direct investments inflow, as well as the employment on that basis
4.7.4 Enhance the quality of products and services in the context of establishing the environment for green jobs creation SDG 2 (2.3, 2.4, 2.5), 12 (12.2), 17 (17.1, 17.14)	4.7.4.1 Introduce programmes for agricultural and food industry products quality improvement (introducing quality and food safety systems, label of origin, geographical indicators, labels of guaranteed traditional specialties and organic products), SDG 12 (12.2). 4.7.4.2 Promote successful projects and introduce Montenegrin products at international fairs (national booth and presentation in international market, visit to specialized fairs, study visits), SDG 2 (2.4). 4.7.4.3 Encourage domestic products creative branding and marketing (particularly specific ones, traditional, indigenous products of high quality, such as wines made from domestic species of vranac, kratošija and krstač grape; olive oil made from indigenous species called žutica; Arbutus unedo (strawberry tree); carob; mushrooms, collard greens; wild fruits, medical plants, fruits and vegetables of our region, honey production, etc.) due to successful placement at regional and foreign markets; products to be packed a way acceptable to modern consumer and a way that brings recognition of Montenegrin region, SDG 2 (2.3), 17 (17.14). 4.7.4.4 Further development of clusters in Montenegro – strengthening of existing, trainings, advisory support, establishment of new ones (clusters: furniture, wood raw materials, construction materials, stone, metal constructions, honey, milk products, chickens/eggs, meat products, wine, bottled water, mushrooms, trout, sea fish and seashells, raspberry, buckwheat, citrus fruits, tourist services, etc.). Strengthen financial character support through refundment of defined eligible investments costs in material and non-material assets, as well as eligible operational costs. Continuously develop programme for cluster development support in Montenegro, (SDG 2.4, 2.5), 4.7.4.5 Implement financial support programmes such as grants for harmonization with requests for international product standards, including safety standards, SDG 17 (17.1).	- NIE49, MARD, Number of certified agricultural and food products (certified quality system; food safety; origin labels; geographic labels; labels of guaranteed traditional specialties) - NIE58, ME, Number of formed clusters in Montenegro and annual growth rate (number of new clusters) - MIWEF33, Global competitiveness index - MIWEF34, Doing business, World Economic Forum - NIE03, MF, Current account balance in GDP (deficit) - NIE04, MF, Coverage of imports by exports rate	- Achieved recognition of local traditional agricultural products, through established systems of certification and promotion of their recognition and quality - Green payments in agro budget reach 30% in structure - Number of clusters, as well as companies included in clusters significantly increased, and ensured development support for the clusters - Increased the competitiveness of Montenegrin economy on the WEF list (GCI) as well as the export of products - Increased innovative potential of SMEs and investments in standards and innovations - Increased the number of certified companies - As the result of increased number of certified companies, increases the number of exports, as well as the number of involved national referent laboratories;

GOVERNANCE FOR SUSTAINABLE DEVELOPMENT

THEMATIC AREA

5. IMPROVEMENT OF GOVERNANCE SYSTEM FOR SUSTAINABLE DEVELOPMENT

STRATEGIC GOAL

5.1 STRENGTHEN GOVERNANCE SYSTEM FOR SUSTAINABLE DEVELOPMENT

INSTITUTIONS RESPONSIBLE

Leading institution(s): Ministry of sustainable development and tourism

Institutions involved in implementation: Ministry of internal affairs and public administration, Human resources department, Ministry of Finance, Ministry for Information Society and Telecommunications

MEASURES	SUB-MEASURES	INDICATORS	TARGET OUTCOMES TO BE ACHIEVED BY 2030
5.1.1 Establish public administration work measurement results SDG 16 (16.6, 16.7, 16.10, 16.b), 17 (17.9, 17.18, 17.19)	5.1.1.1 Establish a system of continuous, simple, quantitative, objectively and transparent measurement of achieved results, SDG 16 (16.6, 16.7, 16.10), 17 (17.18).		- Progress in monitoring system, reporting system and the evaluation system of public administration subjects achieved; - Internalization of responsibilities is set and personal responsibilities strengthened. - Success in achieving results commit dedicated budgeting framework and it represents the need for sustainable development; - Public administration institutions at all levels are effective, responsible and transparent;
	5.1.1.2 Establish internalization of responsibilities by introducing a system for sanctioning the non- efficiency, predictability in proceedings, respecting the regulations, remuneration of above average work results through a programme of competitive salaries and progress based on results and efficiency, SDG 16 (16.6, 16.7, 16.b).		
	5.1.1.3 Strengthen personal responsibility in achieving set objectives in respect to the work plans and obligation for precise formulation of assignments, duties and expected results, SDG 16 (16.6, 16.7).	- SDG 16.6.2 Proportion of the population satisfied with their last experience of public services - MIWB23, Government effectiveness index, World Bank	
	5.1.1.4 Introduce an evaluation system based on the implementation of reasonable, clear and ambiguous criteria and connect the evaluation system with the reward system where above average work results are going to be remunerated and the inactivity sanctioned, SDG 16 (16.6, 16.7).		
	5.1.1.5 To determine desired outcomes based on condition objective assessment and on the assesmnet itself established formulation of needs.		
	5.1.1.6 Enable programme of dedicated budgeting based on achieved results measurement SDG 17 (17.9, 17.19).		
5.1.2 Strengthen participation of interested and professional public in making and implementing decisions important for sustainable development SDG 16 (16.6, 16.7)	5.1.2.1 Encourage participation of all interested parties and professional public at all levels, in public debates and planned processes of importance for sustainable development of the society, satisfying at the fullest extent widest social interest, SDG 16 (16.6, 16.7).	- SDG 16.7.2 Proportion of population who believe decisionmaking is inclusive and responsive, by sex, age, disability and population group - SDG 16.10.2 Number of countries that adopt and implement constitutional, statutory and/ or policy guarantees for public access to information	- Population informed; - Population and institutions participate in decision-making; - Transparent decision-making on sustainable development of public administration institutions taking into account public opinions and suggestions; - Transparent decisions implementation of public administration institutions with a possibility to participate all interested parties;
	5.1.2.2 Improve the transparency of the governance using information and communication technologies, as well as the possibilities of electronic administration and use of the portal «e-government» in order to provide electronic information and electronic participation, as to enable timely information to the public concerned and improve the possibility that the public by expressing opinions and remarks influence on the work of public administration in early phase of decision-making process and implementation of regulations, public policies, programmes and projects, SDG 16 (16.6, 16.7).	- SDG 17.17.1 Amount of United States dollars committed to public-private and civil society partnerships - NIU01 Satisfaction of public for participating in strategic documents and regulations decision-making and implementation - NIU02 Number of remarks on analysis and data availability on sustainable development - NIU 04 Number of received remarks form interested public that are accepted or that influenced on harmonization change of strategic documents and regulations of sustainable development	
	5.1.2.3 Realize programmes for raising the awareness based on previously determined needs in terms of conservation and the improvement of national resources, SDG 16 (16.6, 16.7).		

Leading institution(s): Ministry of sustainable development and tourism

INSTITUTIONS RESPONSIBLE

Institutions involved in implementation: Ministry of internal affairs and public administration, Ministry of Finance, Ministry for Information Society and Telecommunications, Human resources department, Environmental protection agency, Administration for Inspection Affairs, competent courts, local self-governments

MEASURES	SUB-MEASURES	INDICATORS	TARGET OUTCOMES TO BE ACHIEVED BY 2030
5.2.1 Improve environmental management system instruments implementation SDG 16 (16.6, 16.10, 16.10), 17 (17.14, 17.18, 17.19) Paragraphs 47-48, 72-90	5.2.1.1 Establish environmental information system in accordance with INSPIRE Directive, linking it with existing information subsystems and taking into account the level of hitherto realization of those sub-systems, SDG 16 (16.6, 16.10, 16.b), SDG 17 (17.14, 17.18, 17.19), inasmuch that: - Contain spatial data about: transport network (roads, railroads, airports, navigable lines and infrastructure); aquatic bodies; protected areas; geological characteristics and soil characteristics, purpose of space or use of land with charted locations of objects; geographical distribution of dominant disease and their direct or indirect correlation with the environment; communal and other public services (sewage system, waste disposal, water and electricity supply, schools, hospitals, public administration); environmental monitoring infrastructure; industrial objects; population distribution; natural hazards risk zones; zones under special management regime (springs, landfills, enhanced protection against noise, concession zones etc.); air quality; meteorological data; habitats, biotopes and distribution of species; energy resources and mineral resources - Establish the information system in accordance to INSPIRE Directive through: i) upgrade of so far realized activities within the establishment of environmental information system in the Environmental protection agency, ii) linking with central base for sustainable development indicator processing and a platform for reporting on the NSSD implementation in the period by 2030 in the Ministry of sustainable development and tourism - Environmental information system is based on Shared Environmental Information System (SEIS) principles and relevant national regulations (Law on Electronic Administration³).	- SDG 16.10.2 Number of countries that adopt and implement constitutional, statutory and/or policy guarantees for public access to information - SDG 17.7.1 Total amount of approved funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies - NIU01 Satisfaction of public for participating in strategic documents and regulations decision-making and implementation - NIU02 Number of remarks on analysis and data availability on sustainable area - NIU04 Number of received remarks from interested public that are accepted or that influenced on harmonization change of strategic documents and regulations - NIU05 Number of strategic documents and regulations for which, in the phase of drafting, were organized public consultations - NIU06 Number of programmes and projects realized by using and upgrading existing data(bases)	- In 2020 the information system that supports overall system for collecting and processing data and reporting on the state of environment according to EEA and other relevant international bodies used - The environmental information system offers support to the reporting on the NSSD implementation by 2030. - The environmental information system is linked to the data processing system for calculation of sustainable development indicators. - By 2020 PRTR database established and integrated into environmental information system. - All data on the state of the environment whose collection and processing are financed with public funds are publicly available and free to be used by the authorities and interested parties. - The quality of environmental reporting is significantly enhanced. - Strategic environmental impact assessments contribute to the quality of planning and development documents, while environmental impact assessment findings are not formal but crucial factor in realization of interventions in area. - Monitoring for implementation of measures set in studies and elaborates on strategic environmental impact assessment established - Development of e-government completed - all administration services available in electronic form by 2020 - Number of users of electronic services significantly increased - Administrative obstacles significantly eliminated and discretionary powers decreased
	5.2.1.2 In the Environmental protection agency create Pollutant Release and Transfer (PRTR) Register inasmuch that SDG 16 (16.6, 16.10, 16.b), SDG 17 (17.14, 17.18, 17.19): - Contain data about sources, type, quantity, manner and place of discharge, transfer and disposal of pollutants and waste into the environment - Is created as public available centralized data base within environmental information system - Provide data significant for decisions and assessments of pollution reduction and prevention, public health, pollution impact modeling on public health and the quality of life, ecological performances of industrial facilities and the introduction of clean technologies, within reporting on the state of the environment and defining measures for environmental protection.		
	5.2.1.3 Improve approaches and methods for environmental impact assessment (strategic and project), SDG 16 (16.6, 16.10) ⁴ : - Objectify individual steps in process of assessment through use of quantitative, not only qualitative methods, especially with strategic environmental impact assessment - Assessment and analyses link to concrete spatial entities and zones of specific impacts within the coverage of the planning document - Improve obligation of parallel and cooperation-based process of planning and impact assessment.		
	5.2.1.4 Improve implementation of, SDG 16 (16.6, 16.10), SDG 17 (17.14, 17.18, 17.19):		

	- Strategic impact assessment of spatial and development plans on protected natural resources environment, ecologically valuable habitats and ecosystems - Environmental impact assessment for areas within protected natural resources and potential areas of the national eco-network (EMERALD, IBA, IPA), especially those that include natural habitats and eco-systems. 5.2.1.5 Strengthen unique electronic data exchange information system between state authorities and organs of state administration (data and information exchange from registers and information systems directed from single information system managed by the Ministry for Information Society and Telecommunications), SDG 16 (16.6, 16.10), SDG 17 (17.14, 17.18, 17.19). 5.2.1.6 Further develop e-government portal as the central web window for access to the administration services at the national and local level, SDG 16 (16.6, 16.10), SDG 17 (17.14, 17.18, 17.19).		
5.2.2 Carry out an analysis of sectoral policies compliance with environmental requests and the integration of environmental protection requests into sectoral policies and plans SDG 16 (16.6, 16.7, 16.8, 16.10, 16.b), 17 (17.9, 17.13, 17.14, 17.19) Paragraphs: 5, 18, 21, 54-59 i 60-91.	5.2.2.1 Evaluate the disadvantages of adopted strategies and plans in respect to determined criteria SDG 16 (16.6, 16.7, 16.8), SDG 17 (17.9, 17.14, 17.15) 5.2.2.2 Define concrete proposals for modification of strategies and plans separately by sectors, including integration of goals and objectives of sustainable development important for sustainability of natural resources management and environmental protection, SDG 16 (16.6, 16.7, 16.8), SDG 17 (17.9, 17.14, 17.15, 17.19). 5.2.2.3 Define proposals for necessary amendments of relevant legislation in order to enable normative base for sectoral policies and plans compliance according to aforementioned SDG 16 (16.6, 16.7, 16.8, 16.10, 16.b), SDG 17 (17.14, 17, 15).	- SDG 17.14.1 Number of countries with mechanisms in place to enhance policy coherence of sustainable development - SDG 17.16.1 Number of countries reporting progress in multi-stakeholder development effectiveness monitoring frameworks that support the achievement of the sustainable development goals - SDG 17.18.1 Proportion of sustainable development indicators produced at the national level with full disaggregation when relevant to the target, in accordance with the Fundamental Principles of Official Statistics - NIU03. Number of sectoral strategies and relevant action plans harmonized with the NSSD	- Elements of non compliance of national strategies and plans with goals and objectives of sustainable development determined, including those related to sustainability of natural resources management and environmental protection. - National strategies and plans amended and mutually complied. - Sustainable development coordination body and National Council enable sectoral coordination and harmonization.
5.2.3 Strengthen monitoring capacities over environmental regulation implementation SDG 6 (6.a, 6.b), SDG 16 (16.6, 16.7, 16.b), SDG 17 (17.13 i 17.14,17.15)	5.2.3.1 Strengthen ecological inspection and introduce clear and transparent planning and reporting about the inspection, SDG 16 (16.6, 16.7, 16.b), SDG 17 (17.13,17.14,17.15). 5.2.3.2 Strengthen capacities of courts for prosecution of offences and felonies in the field of environmental, 16 (16.6, 16.7, 16.b), SDG 17 (17.13 i 17.14,17.15). 5.2.3.3 Strengthen environmental protection capacities in the context of capacity development for the implementation of sustainable development policy at local level – enable more functional system of local government as each local government, regardless of its economical, personnel and other differences, is capable to ensure efficient, economic and qualitative performance of legally stipulated competencies (including strengthening of different forms of voluntary and legally required inter-municipal cooperation). Unless local government in the period of three years is able to establish efficient institutional system and where there are no capacities at local level, models for the centralization of competence management will be applied., SDG 16 (16.6, 16.7, 16.b), SDG 17 (17.13,17.14,17.15).	- MIWB23 Government effectiveness index, World Bank	- Number of executors increased and ecological inspection efficiency improved. - Professional capacities, productivity and efficiency of communal inspection improved. - Number of verdicts for misdemeanour offences and felonies in the field of environment increased.

5.3 IMPLEMENT REFORM FOR INSTITUTIONAL ORGANIZATION OF GOVERNANCE SYSTEM FOR SUSTAINABLE DEVELOPMENT

INSTITUTIONS RESPONSIBLE

Leading institution(s): National Council for sustainable development, climate change and integrated costal zone management, Ministry of sustainable development and tourism

Institutions involved in implementation: Ministry of Foreign Affairs and European Integration, Ministry of Finance, United Nations Development programme and Centre for sustainable development, Human Resources Department, Administration for Inspection Affairs, local self-governments, business and financial sector, civil society organizations

MEASURES	SUB-MEASURES	INDICATORS	TARGET OUTCOMES TO BE ACHIEVED BY 2030
5.3.1 Strengthen political support of sustainable development policy SDG 16 (16.6, 16.7, 16.8, 16.b), SDG 17 (17.1, 17.3, 17.9, 17.13, 17.14, 17.15, 17.16, 17.17, 17.19) Paragraphs: 5, 18, 21, 39-91.	5.3.1.1	- SDG 17.14.1 Number of countries with mechanisms in place to enhance policy coherence of sustainable development - SDG 17.16.1 Number of countries reporting progress in multi-stakeholder development effectiveness monitoring frameworks that support the achievement of the sustainable development goals - SDG 17.6.1 Number of science and/or technology cooperation agreements and programmes between countries, by type of cooperation - NIU07 Number of systematized jobs and the number of those who are really employed in professional-administrative jobs of the sustainable development policy	- The National Council decisions are implemented efficiently and consistently at national and local level. - Coordination in decision-making and implementation of decisions and strategic documents important for the implementation of the NSSD is improved. - Stable financing of the National Council needs, including support to its expert bodies is enabled. - Visibility of the National Council in the UN context and other relevant international frameworks is improved.
	5.3.1.2		
	5.3.1.3		
	5.3.1.4		
	5.3.1.5		
	5.3.1.6		
	5.3.1.7		
	5.3.1.8		
	5.3.1.9		
5.3.2 Strengthen professional – administrative level of sustainable development policy implementation SDG (16.6, 16.7, 16.8), SDG 17 (17.3, 17.6, 17.7, 17.8, 17.9, 17.13, 17.14, 17.15, 17.16, 17.19). Paragraphs: 3, 5, 21, 39-41, 45-48, 54-59, 60-91	5.3.2.1		- Professional and technical capacities at local and national level enable efficient and effectively implementation of sustainable development goals and measures defined in the 2030 NSSD. - Chosen scenario for the reform of public administration system for the implementation of sustainable development policy enables efficient implementation of the 2030 NSSD and reporting on implementation of sustainable development goals towards the UN. - Business and financial sectors and civil society organizations are active participants in sustainable development policy implementation.
	5.3.2.2		
	5.3.2.3		
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	5.3.2.4		
	5.3.2.5		
	5.3.2.6		

	development policy implementation SDG 17 (17.3, 17.16, 17.19).		
5.3.2.7	Continuously implement programmes for strengthening sustainable development public administration capacities including, SDG 17 (17.6, 17.7, 17.8, 17.16, 17.18, 17.19):		
-	Establishment of technical knowledge improvement programme in priority fields based on previously defined needs, at the same time principally taking into account the importance of quality implementation of trainings results and their contribution in increasing quality of daily activities		
-	Exchange of knowledge and building necessary skills through the participation in relevant international programmes.		
5.3.2.8	Establish programme framework of Sustainable Development Centre by the end of 2016 and in the first half of 2017, realizing the following activities, SDG 17 (17.6, 17.7, 17.8, 17.9):		
-	Submit a request for licensing the Centre in order to perform scientific-research activities		
-	Create protocols on: mutual model of the management of the Centre by the UNDP and the Government of Montenegro, reporting, communication and public presentation of the Centre's activities, partnerships and financial framework (from funds available to the UNDP, as well as from budget funds of Montenegro)		
-	Based on such determined protocols prepare a strategy for the activities of the Centre in the medium-term period up to 2021, with a vision of its long-term integration into national institutional sustainable development management system, including the Study for the development of necessary capacities		
-	Based on such prepared and agreed documents, amend the Memorandum of understanding between the Government of Montenegro and the UNDP on the establishment of the Centre for sustainable development from 2013.		
5.3.2.9	In the period between 2017 – 2021 to be realized programme framework for the Centre for sustainable development by achieving its key functions: connecting science and sustainable development policy in order to strengthen sustainable development management system; implementing projects in the framework of priority the NSSD topics by 2030 focusing on the activities which are preferred to be done in the period until 2020, raising the awareness and building knowledge on sustainable development, by implementing instruments for: projects development and implementation, researches and innovations for informed and expert knowledge-based sustainable development policy-making.		
5.3.2.10	In accordance with capacity building results within the implementation of the Strategy for the activities of the Centre for sustainable development in the medium-term period, in 2021 carry out its complete transformation into a national institution.		
5.3.2.11	Continuously strengthen visibility of the Centre in the region of South – East Europe in order to encourage quality partnerships and exchange of knowledge for sustainable development.		

INSTITUTIONS
RESPONSIBLE

Leading institution(s): National Council for sustainable development, climate change and integrated coastal zone management, Ministry of sustainable development and tourism, Ministry of Labour and Social Welfare, Ministry of Internal Affairs, Ministry for Human and Minority Rights, Ministry of agriculture and rural development, Ministry of economy, Ministry of Health, Ministry of Finance, Ministry of transport and Maritime Affairs, Ministry of Education, Ministry of Science, Ministry of Justice, Ministry for , Ministry for Information Society and Telecommunications and Ministry of Foreign Affairs and European Integration, Statistical office of Montenegro - MONSTAT, local self-governments

Institutions involved in implementation: Association of municipalities, Directorate for development of small and medium sized enterprises, Tobacco Agency, Bureau for Education Services, Office of National Coordinator for Fight against Trafficking in Human beings, Public Procurement Administration, Human Resources Department, University of Montenegro – Institute for Marine Biology, Environmental Protection Agency, Customs Administration, Administration for Inspection Affairs, Central bank, Institute for Public Health, Department of Public Revenues, Securities Commission, Health Insurance Fund, Fund for Pension and Disability Insurance.

MEASURES	SUB-MEASURES	INDICATORS	TARGET OUTCOMES TO BE ACHIEVED BY 2030
5.4.1 Enable continuous realization of programme for transposition of sustainable development goals into national context and building of national capacities for the efficient implementation in upcoming biennial period SDG 16 (16.6, 16.7, 16.b), SDG 17 (17.9, 17.14, 17.15, 17.16, 17.17, 17.18, 17.19), Paragrafi: 3, 5, 21, 39-41, 45-48,54-59, 60-91	5.4.1.1	Carry out a comprehensive and detailed analysis of existing national policies system in respect to the needs of sustainable development goals transposition into the national context SDG 16 (16.6, 16.7, 16.b), SDG 17 (17.9, 17.14, 17.15, 17.16, 17.17).	- The relevance of tasks defined within the sustainable development goals in the context of their integration into sectoral policies, programmes, and plans, and in this respect responsibilities of responsible competent departments and institutions are determined by 2017. - Shortcomings in horizontal and vertical level of administration in respect to sustainable development transposition of goals and indicators into the national context are determined by 2017. - Harmonization of the national policies and plans is carried out by 2018. - Information system for sustainable development indicators processing is established by 2019. - The first pilot report on the 2030 NSSD implementation is prepared in 2019, which in the extent necessary, integrates sustainable development indicators introduced into monitoring statistical system by then. - In 2018 it is reported by processing at least 56,8% of total indicators from the UN list, in 2020 with 70,1%, in 2022 with 80,1%, and in 2024 with 91,2% - establishment of reporting system and later on for the realization of reporting for the NSSD implementation and sustainable development goals have been continuously provided
	5.4.1.2	In terms of the platform that is going to be set by 2030 NSSD, all competent departments have to determine relation among certain sustainable development goals and their sectoral strategies, plans and programmes, measures and actions by 2017 of which they are going to be in charge of the NSSD implementation. Thereafter, should also be determined the relevance of tasks and sustainable development indicators in the context of their integration into sectoral policies as well as the obligations of competent departments and institutions towards reporting on tasks implementation within sustainable development goals relevant for Montenegro. As the next step should be defined a list of priorities for transposition and implementation of sustainable development goals into the national policies, programmes and plans in the period until 2020, SDG 16 (16.6, 16.7, 16.b), SDG 17 (17.9, 17.14, 17.15, 17.16, 17.17).	
	5.4.1.3	In the period between 2016-2024 official and administrative statistics producers should download sustainable development indicators into their programme of statistical monitoring and reporting according to the dynamics and extent determined in the Chapter 7 SDG 17 (17.16, 17.18, 17.19).	
	5.4.1.4	In order to determine official validation procedure of sustainable development indicators by MONSTAT, amend the Law on official statistics and system of official statistics, which could imply significant reform of the national statistical system	
	5.4.1.5	Provide funds from the budget for financing necessary statistical researches and to strengthen human resources and technical capacities of official and administrative data producers towards monitoring of sustainable development indicators, SDG 17 (17.16, 17.18, 17.19).	
	5.4.1.6	Provide funds from the budget for financing the establishment of the 2030 NSSD implementation reporting system, or sustainable development goals towards the UN and with that associated strengthening of human resources and technical capacities of the Ministry of Sustainable Development and Tourism (and/or future authority form the NSSD implementation), SDG 17 (17.16, 17.18, 17.19).	
	5.4.1.7	Continuously improve the NSSD implementation reporting system through the expansion of initially set platform for monitoring of the sustainable development goals implementation, according to the dynamics and extent determined in the Chapter 7, SDG 17 (17.16, 17.18, 17.19).	
	5.4.1.8	With the realization of programme framework of the Centre form Sustainable Development and cooperation with other relevant subjects, especially within the UN system, to provide a support to the Ministry of Sustainable Development and Tourism (and/or future authority for the NSSD implementation), official and administrative statistics producers and other competent departments and institutions for: the development and implementation of the programme for the introduction of sustainable development goals, establishment of the information system for data collecting and processing and the reporting system on sustainable development policy implementation by implementing sustainable development goals and indicators. SDG 17 (17.6, 17.7, 17.8, 17.9).	
		- SDG 17.14.1 Number of countries with mechanisms in place to enhance policy coherence of sustainable development - SDG 17.16.1 Number of countries reporting progress in multi-stakeholder development effectiveness monitoring frameworks that support the achievement of the sustainable development goals - SDG 16.10.2 Number of countries that adopt and implement constitutional, legal and/or program-political guarantees for the right of public to access the information - SDG 17.18.1 Proportion of sustainable development indicators produced at the national level with full disaggregation when relevant to the target, in accordance with the Fundamental Principles of Official Statistics - SDG 17.18.2 Number of countries that have national statistical legislation that complies with the Fundamental Principles of Official Statistics - SDG 17.18.3 Number of countries with a national statistical plan that is fully funded and under implementation, by source of funding - SDG 17.19.1 Dollar value of all resources made available to strengthen statistical capacity in developing countries - NIU01 Satisfaction of public for participating in strategic documents and regulations decision-making and implementation - NIU02 Number of remarks on analysis and data availability about sustainable area - NIU04 Number of received remarks from interested public that are accepted or that influenced on harmonization change of strategic documents and regulations - NIU05 Number of strategic documents and regulations for which, in the phase of drafting, were organized public consultations - NIU06 Number of programmes and projects realized by using and upgrading existing data(bases)	

5.4.2 Establish the NSSD implementation information system for monitoring based on sustainable development goals and indicators , SDG 17 (17.9, 17.16, 17.18, 17.19), Paragraphs 3, 5, 47-48, 54-59, 72-91	5.4.2.1 By 2017 identify shortcomings of existing data bases in respect to the transposition of sustainable development goals and indicators into the national context. By 2018 do the harmonization of national policies and plans in respect to the determined relevance of sustainable development goals and tasks, SDG 17 (17.9, 17.16, 17.18, 17.19). 5.4.2.2 In the next phase, in order to overcome determined shortcomings, by 2019 in the Ministry of Sustainable Development and Tourism (and/or future authority for the NSSD implementation) to establish an information system where the official statistics producers, as well as administrative, will conduct data processing necessary for calculation of sustainable development indicators, according to the model given in the Chapter 7 of this Strategy. Set up the control and data confirmation of administrative data producers, in accordance with the approach given in the Chapter 7 of this Strategy, SDG 17 (17.9, 17.16, 17.18, 17.19). 5.4.2.3 While establishing the information system in the Ministry of Sustainable Development and Tourism (and/or future authority for the NSSD implementation) for the support of the NSSD implementation and sustainable development indicators monitoring, enable connectivity of all official and administrative statistics producers (e.g. the model of IRIS functioning within the UNEP live, as presented in the Chapter 7 of this Strategy), within the unique information system directed by the Ministry for Information Society and Telecommunications. The contents and methodology for data maintenance of comprehensive information system to be arranged in accordance with the Regulation on the contents and methodology for data maintenance in unified electronic data interchange, by establishing, SDG 17 (17.9, 17.16, 17.18, 17.19): - Compulsory content of data collecting and storage - Competences of official and administrative statistics producers necessary for sustainable development indicators calculations, including amendments of relevant programmes of work of these institutions as well as relevant national regulations in respect to the needs of sustainable development indicators' implementation determined in the Chapter 7 of this Strategy, - Data exchanging rules between competent institutions, or official and administrative statistic producers, , - Rules for the establishment of general sustainable development meta-base with information on the data availability, - Rules for maintenance of information system. 5.4.2.4 In the Ministry of Sustainable Development and Tourism to establish and manage the platform for monitoring and reporting on the NSSD implementation by application of sustainable development indicators (e.g. the model of IRIS functioning within the UNEP live). The platform should be connected with the central data base/information system for monitoring and reporting on the NSSD implementation in accordance with the model presented in the Chapter 7 of this Strategy, SDG 17 (17.9, 17.16, 17.18, 17.19). 5.4.2.5 To provide financial funds for data collecting, updating and maintenance, SDG 17 (17.16, 17.19). 5.4.2.6 In accordance with the Regulation on the contents and methodology for data maintenance in unified electronic data interchange (GSB), through a unique exchange system, to ensure availability of data contained in the databases by improving procedure implementation for, SDG 17 (17.18): - Submission and approval of requests for ensuring data availability - Use of data in order to perform professional duties (public policies, studies, analyses creation as well as creation of development and spatial plans etc.) and conducting scientific researches - Use of data for public information. 5.4.2.7. Encourage and implement development programmes for technical and expert knowledge necessary for modernization of data collection and processing processes and information system management in accordance with advanced regulations and needs SDG 17 (17.16).		

FINANCING FOR SUSTAINABLE DEVELOPMENT

THEMATIC AREA

6. FINANCING FOR SUSTAINABLE DEVELOPMENT

STRATEGIC GOAL

6.1 ESTABLISH THE SYSTEM FOR SUSTAINABLE ENVIRONMENTAL FINANCING AND PRESERVATION OF NATURAL CAPITAL AS A COMPONENT OF FINANCING FOR SUSTAINABLE DEVELOPMENT

Leading institution(s): Ministry of Finance

INSTITUTIONS RESPONSIBLE

Institutions involved in implementation: Ministry of Sustainable Development and Tourism, Ministry of Economy, Ministry of agriculture and rural development, Ministry of transport and Maritime Affairs, Ministry of Science, Ministry of Education, Ministry of Foreign Affairs and European Integration, Employment Agency of Montenegro, Environmental Protection Agency, local self-governments, companies, professional and scientific institutions and non-governmental sector; international development partners (EU, UN, WB etc.);

MEASURES	SUB-MEASURES	INDICATORS	TARGET OUTCOMES TO BE ACHIEVED BY 2030
6.1.1 Introduce a system for program, purposeful planning of the annual budget for all budget beneficiaries (spending units), where funds needed for implementation of program activities for sustainable development SDG 12 (12.2), 17 (17.3, 17.9, 17.14, 17.18, 17.19)	6.1.1.1 Improve the system of budget classification and especially plan funds for sustainable development program activities realization SDG 17 (17.3, 17.9, 17.14, 17.18, 17.19).	- SDG 17.1.1 Total government revenue as a proportion of GDP, by source - SDG 17.1.2 Proportion of domestic budget funded by domestic taxes - SDG 17.3.1 Foreign direct investments (FDI), official development assistance and South-South Cooperation as a proportion of total domestic budget - SDG 17.13.1 Macroeconomic dashboard - SGD 17.14.1 Number of countries with mechanisms in place to enhance policy coherence of sustainable development - MIWB23 Government effectiveness index, (World Bank)	- Administrative expenses for the NSSD governance and a part of program activities of sustainable development amount from 1 to 1.5% of total Montenegrin budget funds by 2020, and from 1.5 to 2% of total budget funds in 2030. - Harmonized sector budgets with the NSSD planned activities. - Increased the level of coordinated action between sectors and spending units. - Introduced medium-term financial framework – programming budget; - Created efficient system to measure the effects of budget programmes so as to increase the efficiency and transparency of public spending, using target indicators that follows: - Share of new mid-term sectoral strategies that include the assessment of expenses for their implementation, involving possible donor funds, in the structure of total sectoral strategies, reaches 100% by 2020. - Average deviation between budget expenditures limits determined by mid-term budget framework and existing budget expenditures planned by annual Law on budget, decreased at 5% by 2020.
	6.1.1.2 Harmonize sector budget planning of spending units in order to improve coherence of policies for the sustainable development, as from the aspect of financial sources, so as from the aspect of their implementation, respecting the sustainable development financing (integrated approach, principle of cooperation, principle of fulfillment of internationally taken obligations, the principle of transparency and accountability, consistency of sustainable development policies, the principle of efficiency and coordination, principle of mobilization and effective use of environmental financing sources, principle of co-financing with private sources, then financial aspects of the prevention and precautionary principles and the principle of subsidiarity, SDG 17 (17.14), SDG 12 (12.2).		
6.1.2 Establish the Eco-fund and promote mobilization of funds for environmental financing through an efficient and financially sustainable environmental fund, along with the inclusion of new economic instruments in this area (green fiscal reform) SDG 17 (17.3, 17.14), SDG 12 (12.2)	6.1.1.3 Adjust allocations from local self-government budgets to the planned budget funds at the national level, SDG 17 (17.14), SDG 12 (12.2).	- SDG12.c.1 Amount of fossil-fuel subsidies per unit of GDP (production and consumption) and as a proportion of total national expenditure on fossil fuels - MIWB22 (Government effectiveness index, World Bank)	- The Eco-Fund established - Implemented green fiscal reform, including revenues (taxes and fees) and expenditures (subsidiaries and investments) - Broadened tax basis and increased predictability of the tax system - Increased the capacity of natural institutions - Responsible public spending, respecting the sustainable development principles - Predictable public finances and credible mid-term planning, along with measuring of the spending effects, improve the country credit rating, supporting the green economy development.
	6.1.2.1 Develop or integrate all earmarked revenues for the environmental protection in a unique fund for the environmental protection (respecting polluter pays principle, user pays principle, private sector partnership and global partnership); especially including, (SDG SDG 17 (17.14), SDG 12 (12.2): - fees for discharge of water emissions (Law on Waters and Law on Water Management Financing) - permits for trade in sources of ionizing radiation and radioactive materials - fees for the control of radioactivity of goods in import, export and transit - fees for the use of natural resources, including valorization of natural capital and ecosystem services by the user pays principle (for the use of waters, use of mineral raw materials, exploitation of forests); where appropriate find sustainable mechanisms for mobilization of these funds at the national, as well at local level - include revenues collected from use of protected areas (National Parks), including ecosystem services - include a part of revenues collected from excises on fossil fuels which would be used for remediation of negative environmental effects generated in combustion of fossil fuels		

	6.1.2.2 Include additional tax revenues (e.g. taxes on pesticide use, fees for use of non-metallic mineral raw materials, fees for tree protection, deposit for beverage packaging, taxation of plastic bags, water pollution fee and taxation of natural resource, etc.) for adequate valuation of natural resources in accordance with European practice, including the following priority activities, SDG 17 (17.14), SDG 12 (12.2): - Integrate fees from the sector of processing industry, from concessions and other ways of the use of natural resources into eco-fund financial sources. - Introduce new fiscal mechanisms for the environmental protection (introduction of new fiscal environmental protection mechanisms (e.g. fees for import of products which jeopardize the environment). 6.1.2.3 Enable consistent and efficient payment of taxes for environmental pollutions and use of natural resources, SDG 17 (17.3, 17.14), SDG 12 (12.2). 6.1.2.4 Further develop forms for proper use of funds for environmental protection from public sector and through partnership with domestic and international private and public sources, SDG 17 (17.3, 17.14), SDG 12 (12.2). 6.1.2.5 Enable compatibility of tax collecting and environmental fees within the Eco-fund with those for sustainable development financing, as well as subsidiaries which are going to be supported from the both financing sources. Ensure channeling a part of funds for environmental protection to local self-governments in accordance with the Eco-Fund program commitments, SDG 17 (17.3, 17.14), SDG 12 (12.2).		
6.1.3 Eliminate environmentally unfriendly subsidies, including rationalization of inefficient subsidies SDG 12 (12.c), 17 (17.3, 17.14)	6.1.3.1 Eliminate environmentally unfriendly subsidies and enable paying real prices for the use of natural resources, SDG 12 (12.c), 17 (17.3, 17.14). 6.1.3.2 Completely harmonize regulations and policy of the state assistance with the EU standards in this field, SDG 12 (12.c), 17 (17.3, 17.14). 6.1.3.3 Revise the level of these allocations strictly respecting the principle of gradual reduction of approved subsidies in the function of time, SDG 12 (12.c), 17 (17.3, 17.14). 6.1.3.4 Expand subsidies that encourage environmental sustainability and sustainable development of natural resources through: support to pollution remediation, , sustainable nature-based forms of tourism, sustainable cities, introduction of green infrastructures, green mobility and pilot projects for the establishment of integrated sustainable transport system, researches and innovations focused on new end clean technologies, etc., SDG 12 (12.c), 17 (17.3, 17.14).	- SDG 12.c.1 Amount of fossil-fuel subsidies per unit of GDP (production and consumption) and as a proportion of total national expenditure on fossil fuels - NIE63, MF, State assistance in GDP and participation of regional assistance in overall state assistance	- Eliminated environmentally unfriendly subsidies - Introduced new set of subsidiaries in accordance with the EU standards
6.1.4 Mobilize funds for the improvement of environmental infrastructure by combining economic instruments, stimulating foreign investments, through loans and developing partnership mechanisms with domestic and international partners (public and private sectors), SDG 12 (12.2, 12.c), SDG 17 (17.3, 17.14);	6.1.4.1 Increase earmarked allocations of public sector for the environment (in the state budget and in the local self-government budgets, SDG 17 (17.3, 17.14). 6.1.4.2 Improve legislation in the context of basis for the collection of environmental taxes and fees for pollution and use of natural resources and enhance mechanisms for collected funds governance (improve the system and payment of fees), ensuring their earmarked spending through functioning of transparent eco-fund, SDG 12 (12.2, 12.c), 17 (17.3, 17.14). 6.1.4.3 Improve legislation in the context of getting the prices right which will cover the costs for the prevention and elimination of consequences caused by negative environmental impacts and stimulate the rational use of natural resources such as waters, excavated water course materials, and forests, SDG 12 (12.2, 12.c), 17 (17.3, 17.14). 6.1.4.4 Broaden the basis for the collection of environmental taxes and fees for pollution and use of natural resources, in accordance with the EU practice, first of all by, SDG 12 (12.2, 12.c), 17 (17.3, 17.14):	- MIWB23, (Government effectiveness index, World Bank)	- Administrative expenses for the NSSD governance and a part of program activities of sustainable development amount from 1 to 1.5% of total Montenegrin budget funds by 2020, and from 1.5 to 2% of total budget funds in 2030. - Harmonized the national legislation with the EU Acquis in the area of environmental protection - Introduced new economic instruments for the encouragement of the green economy and creation of green jobs

	- Integrating fees from the sector of processing industry, from concessions and other ways of natural resources use into the Eco-fund financing sources, - Introducing new fiscal mechanisms for the environmental protection (e.g. fees for import of goods that endanger the environment).		
6.1.4.5	Enable financial sustainability of public utility companies implementing adequate pricing policy and reduction of number of employees into realistic frameworks, SDG 17 (17.3, 17.14).		
6.1.4.6	Promote environmental investments using additional set of incentives for greening of Montenegrin economy, SDG 12 (12.2, 12.c), 17 (17.3, 17.14).		

THEMATIC AREA	6. FINANCING FOR SUSTAINABLE DEVELOPMENT
STRATEGIC GOAL	6.2 ENABLE INTRODUCTION OF GREEN ECONOMY BY MOBILIZING FUNDS FOR SUSTAINABLE DEVELOPMENT FINANCING

Leading institution(s): Ministry of Finance

INSTITUTIONS RESPONSIBLE

Institutions involved in implementation: Ministry of Sustainable Development and Tourism, Ministry of Economy, Ministry of agriculture and rural development, Ministry of transport and Maritime Affairs, Ministry of Science, Ministry of Education, Ministry of Foreign Affairs and European Integration, Environmental Protection Agency, Employment Agency of Montenegro, , local self-governments, companies, professional and scientific institutions and non-governmental sector; international development partners (EU, UN, WB etc.);

MEASURES	SUB-MEASURES	INDICATORS	TARGET OUTCOMES TO BE ACHIEVED BY 2030
6.2.1 Provide financial support to the development of mechanisms and capacities for the introduction of green economy in ten priority sectors (9.b), 10 (10.1, 10.2, 10.4, 10.b), 12 (12.a, 12.c), 13 (13.3), 15 (15.a, 15.b), 17(17.1, 17.3, 17.14, 17.16)	6.2.1.1	- NIE59, IDF, Number of IDF realized credit lines for incentive of SMEs development which are support to green entrepreneurship - NID65, IDF Total value of projects approved by IDF for the northern region - NIE46, MARD, MSDT, Number of households entitled to direct green payments - NIE42, MARD, MSDT, Share of agricultural areas in special agriculture and rural development support programs (green payments, organic agriculture, protected areas, areas with natural constrains for agriculture, areas of particular natural values etc.)	- Ensured domestic public resources that generate growth of economy on sustainable basis - Enabled domestic and international private resources for sustainable development financing and creation of green jobs - Improved coherence of sustainable development policies, including coordination
	6.2.1.2		
	6.2.1.3		
	6.2.1.1 Create new green jobs, primarily with the aim of accelerating development of the northern region, discrepancies and poverty reduction, in the following priority sectors, SDG 12 (12.c), 10 (10.1, 10.2, 10.4): - Sustainable agriculture and rural development (including: promotion of areas with limited possibilities for agricultural production; conservation and sustainable use of genetic resources; organic production; sustainable use of mountain grazing land),SDG 15 (15.a, 15.b) - Strengthening linkages between tourism and agriculture - Sustainable forestry SDG 15 (15.b) - Development of green forms of tourism -diversification of touristic offer; - Development of sustainable RES and reduction of environmental emissions and pressures; - Energy efficiency (households, public sector, commercial sector, transport, processing industry); it is particularly necessary to green spatial planning and construction (further integration of energy efficiency requirements into spatial plans, but also in use of construction materials, enable conservation of landscape and natural values in spatial plans; enable spatial planning which takes climate change influences into account) - Sustainable production and consumption for efficient use of resources and strengthening competitiveness (processing industry, services, small and medium-size enterprises). - Natural capital (protected areas, conservation of ecosystem stability, especially of sensitive ones, conservation of landscape and spatial values; water resources, coastal zone and land) - Infrastructure which contributes to conservation of environment (in the area of waste, waste water management, transport, construction), as well as green and climate resilient infrastructure - Science and research, education (innovations and technological development, project co-financing). 6.2.1.2 Develop green economy and innovation capacities, along with significant role of science, research, educational system and international cooperation, SDG 12 (12.a), 13 (13.3), 10 (10.b), 9 (9.b), 17 (17.14, 17.16). 6.2.1.3 Create conditions for green economy, especially in priority sectors: agriculture (including rural development and forestry), energy (EE and RES) and tourism by strengthening capacities and enabling investments for greening of economy and creation of new jobs, where public sector acts as accelerant, and the role of private sector is growing, SDG 17 (17.3, 17.14).		

	6.2.1.4	Implement measures of fiscal consolidation, fight against gray economy, strengthen international cooperation in the field of tax policy, with adequate pricing and tax policies to products which endanger human health, in order to create additional resources from public sources for sustainable development financing, SDG 10 (10.4, 10.2), 17 (17.1, 17.3, 17.14).		
6.2.2 Establish a suitable regulatory framework for investments into green economy SDG 8 (8.2, 8.3), 10 (10.2, 10.3, 10.b), 12 (12.2, 12.c), 13 (13.2, 13.a), 15 (15.2), 16 (16.6), 17 (17.1, 17.2, 17.3, 17.4, 17.5, 17.6, 17.7, 17.14, 17.17, 17.18, 17.19)	6.2.2.1	Consistently implement sustainable development and green economy policy and rules, as well as relevant strategies and plans; integrate measures for creation of proper framework and ambience for green economy into sectoral policies and measures, SDG 13 (13.2), 17 (17.14).	- SDG 17.14.1 Number of countries with mechanisms in place to enhance policy coherence of sustainable development - MIWEF34, (Doing Business, World Economic Forum) - MIWEF33 Global Competitiveness Index (GCI) - MIWB29 Technical cooperation grants (BoP, current US\$) - NIE05, MF, Net FDI in GDP - NIE59, IDF, Number of IDF realized credit lines for incentive of SMEs development which are support to green entrepreneurship	- Enhanced coherence of sustainable development policies - Improved institutional framework and overall business ambience for investment attraction into green economy - Increased number of approved projects from regional pre-accession funds for the support of infrastructure and social development - Increased number of international development partners that support the development of green economy in Montenegro - Developed green banking, increased number of credit lines under favorable conditions to the companies that are active in energy efficiency sector, waste management and similar, companies that produce ecology-designed products, individuals who bye hybrid vehicles, farmers who produce organic products - Develop indicators for measuring the progress during the green economy transition (green GDP)
	6.2.2.2	Build a transparent, stable and predictable investment environment, with full application of contractual provisions and respect of ownership rights, integrated in clear macro-economic policies and adequate institutions; in this context develop and implement policies and instruments of green economy, including fiscal and market-based instruments, standards and rules. Through the Eco-fund functioning support their efficient implementation. Also implement instruments based on volunteerism, SDG 10 (10.b), 17 (17.3).		
	6.2.2.3	Develop good climate for inclusive and sustainable investments from private sector, with transparent and stable rules and standards, and fair competition, all with the aim to foster the achievement of sustainable development goals in the country, SDG 17 (17.14).		
	6.2.2.4	Encourage preparation of projects which promote employment growth, sustainable consumption forms, structural transformation and sustainable industrialization, production diversification and agricultural development, particularly: - Greening labor force market (connection between educational system and labor force market, enabling trainings for greening of specific occupations and development of new knowledge and abilities; - Enabling equitable distribution of economic benefits and reduction of inequality, including measures through purposeful budget planning, SDG 10 (10.2, 10.3), 17 (17.3, 17.4).		
	6.2.2.5	Ensure technical support and trainings for strengthening of economic cooperation of the host country and foreign investors, as well as by providing collaterals and necessary guarantees for the investments (WB, UN, EU); involve multilateral development banks; strengthen administrative capacities and trainings for the use of resources form the EU pre-accession assistance (the EU structure funds, later), as well as participation in the Union programs, SDG 10 (10.b), 17 (17.1, 17.2, 17.3, 17.4, 17.5, 17.6).		
	6.2.2.6	Regular update the National investment plan with a complete base of investment projects in the field of energy, environment, transport and social activities for WBIF-IPA and European banks (EIB, EBRD), SDG 10 (10.b), 17 (17.1, 17.2, 17.3, 17.4, 17.5).		
	6.2.2.7	Stimulate green entrepreneurship facilitating credit approach to commercial banks for start-ups and new employments green banking)), SDG 8 (8.2, 8.3), 17 (17.3).		
	6.2.2.8	Strengthen public-private partnerships, SDG 17 (17.3, 17.7, 17.17).		
	6.2.2.9	Abandon direct and hidden subsidies for unsustainable activities (excessive pollution, inefficient consumption of energy and other resources, overuse of natural resources, threats to valuable biodiversity), SDG 12 (12.2, 12.c), 15 (15.a), 17 (17.14).		
	6.2.2.10	Enable integration of ecosystem values into development policies and national accounts, SDG 15 (15.2), 17 (17.14).		
	6.2.2.11	Develop indicators for measuring the progress during the green economy transition, SDG 12 (12.8), 17 (17.18, 17.19).		
	6.2.2.12	Enable development of green economy new knowledge and abilities, raising of awareness and change of behaviour; strengthen resource mobilization process through the Green Climate Fund, Strategic biodiversity Plan, Global Environment Facility, GEF, Initiatives of WHO, etc., SDG 13 (13.3, 13.a), 10 (10.b), 17 (17.14).		
	6.2.2.13	Define institutional and administrative structures that should enable human resources development and scientific-research infrastructure in the function of greater contribution to green development; realize and enable implementation of results of these scientific-research projects, SDG 13 (13.3, 13.a), 10 (10.b), 16 (16.6), 17 (17.14).		
	6.2.2.14	Encourage further development of private sector that respects international standards and good practice of labor market, i.e. rights related to occupational health and safety, environmental and health standards, respecting overall corpus of rights of persons, in accordance with international conventions, SDG 8 8.5).		

6.2.3 Institutionally and organizationally strengthen coherence of policies of importance for sustainable development financing SDG 10 (10.6), 17 (17.3, 17.10, 17.11, 17.12 17.13, 17.14, 17.18, 17.19)	6.2.3.1 Improve state budget planning and execution in organizational and human resource terms in the Ministry of Finance, enabling at least one civil servant responsible for financial planning, tracking and aggregating current but also capital expenditures of the budget spending units related to sustainable development financing, including expenditures and investments for sustainable development of human, social and economic capital of Montenegro, SDG 17 (17.13, 17.14, 17.18, 17.19). 6.2.3.2 Strengthen administrative capacities of local self-government units for enabling sustainable development financing at the local level, SDG 17 (17.3, 17.14). 6.2.3.3 Establish control mechanisms within the Commission or Economic Policy and Financial System application of which would disable adoption of documents and regulations which are not in compliance with priorities of sustainable development of Montenegro by 2030, SDG 17 (17.14).	- MIWB23 Government effectiveness index, World Bank - SDG 17.14.1 Number of countries with mechanisms in place to enhance policy coherence of sustainable development	- Enhanced coherence of sustainable development policies, including coordination and flexible mechanisms of sustainable development financing
6.2.4 Encourage transparency, inclusive and non-discriminatory international trade SDG 8 (8.a), SDG 10 (10.6, 10.a), 17 (17.10, 17.11, 17.12)	6.2.4.1 Implement the Trade Facilitation Agreement of the World Trade Organization (WTO TFA) and respect all WTO initiatives , especially those for least developed countries; implement similar agreements within CEFTA zone for free trade, participate in all the UNCTAD initiatives of trade facilitation and increased import, in order to create fair trade conditions for all and enhance access to market for less developed ones (especially to the market for agricultural and food products), SDG 8 (8.a), SDG 10 (10.6), SDG 17 (17.10, 17.11, 17.12). 6.2.4.2 Strengthen access to financial sources for the growth of economic activities and define market-oriented incentives so as to extend financing of international trade in accordance with the WTO rules, SDG 10 (10.a), SDG 17 (17.10, 17.11, 17.12). 6.2.4.3 Encourage the regional trade and interconnectivity, which promote inclusive growth and sustainable development; removal of barriers in the regional trade, removal of unnecessary non-tariff measures and strengthen bilateral and regional economic cooperation with trade, SDG 17 (17.10, 17.11, 17.12).	- NIE03, MF, Current account balance in GDP (deficit) - NIE04, MF, Coverage of imports by exports rate - NIE06, CA, Average time for import and export customs clearance	- Completely implemented the Trade Facilitation Agreement WTO (and CEFTA) - Increased export of agricultural and food products, by reducing of non-tariff measures in the region and by trade facilitations - Strengthened regional economic cooperation
6.2.5 Enable public debt management based on intergenerational equity and sustainable development principles SDG 10 (10.5), SDG 17 (17.4, 17.13, 17.14, 17.18, 17.19)	6.2.5.1 Implement the Public Debt Management Strategy as a part of the state fiscal strategy, including the analysis of the existing debt, estimate of trends in the forthcoming mid-term, cost and risk analysis accompanying the potential debts and guidelines for further indebtedness policy and debt management, SDG 17 (17.4, 17.13, 17.14, 17.18, 17.19). 6.2.5.2 Manage further debts respecting intergenerational equity principle, particularly in reprogramming of debt, i.e. reprogramming of funds needed for public expenses from the beginning of a certain project to the moment of effected due debt servicing, SDG 17 (17.4, 17.13, 17.14, 17.18, 17.19). 6.2.5.3 Improve regulatory framework and following global financial markets and institutions, and strengthen budget and financial management in the country, SDG 10 (10.5), 6.2.5.4 Reduce to less than 3% transaction costs of migrant allocations and eliminate corridors for allocation payments with costs bigger than 5% by 2030, SDG 10 (10.c).	- SDG 17.4.1 Debt service as a proportion of exports of goods and services - SDG 10.5.1 Financial Soundness Indicators - SDG 10.c.1 Remittance costs as a proportion of the amount remitted - NIE07, MF, State debt in GDP - NIE08, MF, Public debt in GDP - NIE09, MF, Costs of debt Service as % of GDP - MIWB26 Total Debt Service, World Bank	- Public debt sustainable maintenance on the principles of intergenerational equity



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The NSSD Implementation and monitoring: sustainable development measures for Montenegro by 2030

Without measuring implementation success and evaluating the effectiveness of sustainable development measures it is not possible to monitor changes and outcomes of the NSSD implementation. Thereby, together with monitoring of planned and expected changes, it is also possible to monitor unplanned changes which potentially may cause difficulties in sustainable development policy implementation. The NSSD strategic goals “**Establish a system for monitoring of national sustainable development, including monitoring of sustainable development goals implementation**” gives a critical overview on implementation monitoring and reporting of the NSSD from 2007, to identify weaknesses and offer answers to overcome shortcomings in the period by 2030. The main weaknesses of the existing system can be grouped in two parts: 1) lack of a general list of national sustainable development indicators, which consists of qualitative and measurable quanti

tative sustainable development indicators of condition, process and outcome; and 2) lack of a functional information system for the management of the data needed for calculating sustainable development indicators. Compatibility of existing databases and communication of numerous subjects having competencies for the NSSD measures implementation in the context of harmonization of database processing and their exchange should be enabled the above mentioned weaknesses resulted in the inability of trends qualification in the NSSD measure implementation, and routing of reporting system on monitoring of outcomes, without possibility to access process trends connected to sustainable development measures implementation. Thus is disabled evaluation on how the processes lead to the fulfilment of planned outcomes or if not, why it was not possible to achieve planned outcomes.

To create conditions for measuring national sustainable development in time horizon of the NSSD by 2030, it is necessary to take steps - forward by overcoming weaknesses from previous phase of the NSSD implementation and by establishing functional system which enables precise measuring of processes and outcomes both planned and unplanned. It is necessary that such an established system enables evaluation of progress in implementing objectives and measures of the NSSD, as well as informed basis for harmonization of initial objectives and measures with the NSSD implementation results, if the need for that arises. Also, this kind of system should enable comparison of situation and movements, both in national and international context, primarily for the sake of national reporting to The United Nations Economic and Social Council (ECOSOC) and The United Nations Statistical Commission on progress in implementing of sus-

tainable development goals and indicators. At the same time, it is necessary that system supports fulfilment of compatible responsibilities within implementation of specific number of the UN multilateral agreements, as well as reporting towards the European Environmental Agency and the EUROSTAT.

Therefore for the realization of the strategic goals "Establish a system for monitoring of national sustainable development, including monitoring of sustainable development goals implementation" implementation of measures that follows is preferential:

- Enable continuous realization of programme for transposition of sustainable development goals into national context and building of national capacities for the efficient implementation in upcoming biennial period, SDG 16 (16.6, 16.7, 16.b), SDG 17 (17.9, 17.14, 17.15, 17.16, 17.17, 17.18, 17.19),
- Establish information system for monitoring of the NSSD implementation based on sustainable development goals and indicators, SDG 17 (17.9, 17.16, 17.18, 17.19).

These measures followed by sub-measures will enable functional system of monitoring of sustainable development policy implementation by 2030 contributing to the welfare of society and the quality of life of citizens. Such established methodology, alongside with horizontal dimension of data collecting and processing in order to follow the NSSD strategic goals, has also vertical dimension for Montenegro to become a part of unified reporting system of the UN sustainable development goals implementation. Set in this way, the system for the NSSD implementation and sustainable development measures monitoring, should

enable informed decision-making based on elaborate and objective indicators of condition, process and outcome, systematically collected and processed in comparable time series.

Herewith, a base for fulfilment of voluntary national obligations within the framework of systematic monitoring and review of the Agenda for sustainable development over the next 15 years has been set. The Agenda determined that “A robust, voluntary, effective, participatory, transparent and integrated follow-up and review framework will make a vital contribution to implementation and will help countries to maximize and track progress in implementing this Agenda in order to ensure that no one is left behind; As national ownership is key to achieving sustainable development, the outcome from national level processes will be the foundation for reviews at regional and global levels, given that the global review will be primarily based on national official data sources; at the same time follow-up and review in the national context is defined as voluntary instrument led by countries taking into account different national realities, capacities and levels of development and respecting national policies and priorities“.

7.1. Measuring sustainable development of Montenegro by 2030

For measuring progress towards implementation of the NSSD goals, measures and sub-measures, it is necessary to implement a system of sustainable development indicators which enable precise measuring of process and outcome of sustainable development measures implementation, or monitoring of situation and movements, both in national and international context.

Considering that the 2030 NSSD integrates the UN sustainable development goals and assignments, **sustainable development indicators set by Statistical Commission of the UN** represent the priority set of indicators for monitoring of the sustainability of national development by 2030. Therefore, the focus is on introducing sustainable development global indicators into the national system for sustainable development measuring, by determining their variability in given national circumstances, and the recognition of responsible subjects for their introduction and implementation. Also, their connection with the NSSD Action plan measures is done.

However, the 2030 NSSD sets the strategic framework for the sustainable development of society which is based on context of broader connectivity with the 2030 Agenda for sustainable development. Considering specificity of national development, problems and needs that have been crystallized from 2007 until now, the NSSD introduces a set of relevant **national indicators** for monitoring of sustainability of national develop-

ment, where there is a connection between national indicators and sustainable development indicators from the UN list.

Also, the sustainable development indicators from the UN list are analyzed in respect to the list of **indicators of relevant international organizations** to, even if not followed-up in Montenegro, contribute to a certain extent to a more complete national reporting in reference to the requirements of the UN indicators, but do not represent an alternative by content of UN sustainable development indicators. This should enable consideration of broader international context about progress and implementation of sustainable development policy.

In this strategy, together with previously stated indicators, **composite (complex) sustainable development indicators** are also introduced, which enable cumulative overview of the sustainability of national development and the condition of the national resources.

From the aspect of introducing progress monitoring indicators in the realization of the NSSD measures, an approach has been applied in which, for each measure or sub-measure it is not assigned specific indicator or group of indicators, but rather each indicator or group of indicators are defined as relevant for monitoring of several measures or sub-measures within certain priority topics.

As previously described, Montenegro introduces instruments for monitoring the 2030 Agenda for sustainable development implementation in respect to the commitment where: *„The Goals and targets will be followed-up and reviewed using a set of global indicators, which will be complemented by indicators at the regional and national levels which*

will be developed by member states, in addition to the outcomes of work undertaken for the development of the baselines for those targets where national and global baseline data does not yet exist“.

7.1.1. Introduction of indicators from the UN list into the Montenegrin national system of sustainable development measuring

In order to establish a system for the 2030 NSSD implementation and reporting monitoring, an analysis of 241 sustainable development indicators, which were defined by the UN Statistical Commission during 47th assembly that took place from March 8-11, 2016, was carried out. Due to a need of inclusion of official statistics producers into the future reporting towards the UN Statistical Commission, an overview of current official statistics producers' possibilities and responsibilities has been carried out. Article 7 of the Law on official statistics and system of official statistics ¹ defines official statistics producers as: 1) State administration body responsible for statistics (MONSTAT), 2) Central Bank of Montenegro, 3) State administration body responsible for finances (Ministry of Finance) and 4) Other official statistics producers defined by the Official Statistics Programme. In the Programme of official statistics for the period 2014-2018² other official statistics producers are determined as follow: 1) Institute for Public Health of Montenegro, 2) Customs admin-

1 Law on official statistics and system of official statistic, "Official Gazette of Montenegro No.18/12

2 Programme of official statistics for the period 2014-2018, "Official Gazzette of Montenegro", No. 13/14, from 14.03.2014

istration, 3) Department of Public Revenues, 4) Securities Commission, 5) Health insurance fund of Montenegro, 6) Pension and Disability Insurance Fund of Montenegro and 7) Ministry of science. Pursuant to Article 4 of the Law on official statistics and system of official statistics which, inter alia, defines the importance of statistical data collecting and administrative data sources, of all other institutions, which together with official statistics producers represent administrative sources for specific number of data relevant for calculation of sustainable development indicators, can be considered as administrative statistics producers for sustainable development indicators data collecting within the NSSD implementation, i.e. the 2030 Agenda for sustainable development.

In this respect there is a difference in responsibilities of official and administrative statistics producers for the purposes of reporting in implementing indicators from the UN list within the 2030 NSSD implementation:

- Official statistics producer should independently analyze processed data and calculated indicators and prepare analytical report (in accordance with Article 4 of the Law on official statistics and system of official statistics “official statistics producers are responsible for collection, processing and dissemination of statistical data, in accordance with the programme of official statistics”(paragraph 1, point 2),while data collection is an activity of official statistics producers related to, inter alia, “data take over from administrative data sources” (paragraph 1, point 6); while in article 9 is stated that the Statistical Office of Montenegro, inter alia,

is obliged for “Monitoring and implementing statistical data and information quality control”, and that, according to the Article 7, paragraph 3 “Official statistics producers shall be responsible for collecting, producing, processing, and disseminating statistical data, and must apply official statistics principles, as well as methodologies and standards for producing statistics under their responsibility to produce transparent and internationally comparable data”).

- Administrative statistics producers, introduced by the NSSD for the purposes of sustainable development indicators calculation within the NSSD implementation monitoring, i.e. the 2030 Agenda for sustainable development, should go through a process of control and confirmation of data and indicators by the Statistical Office of Montenegro. In this context, by 2018 should consider a possibility of amending the Law on official statistics and system of official statistics, in order to broaden the competences of the Statistical Office, so that together with official statistics can verify and coordinate administrative producers of statistics for the purposes of informing within international statistical cooperation.

- According to the document „Procedure on accession of statistics producers in official statistical system” (Statistical Office, February 2015), page 3, point V “Accession to official statistical system of Montenegro”, and in respect to the conditions that a requester should fulfill in order to access the statistical system, the requester has to provide information on time series (at least 3 years) for statistical research, which makes him/her a candidate for

Agency. Control and verification procedure about the data produced by administrative statistics producers for the purposes of reporting of MONSTAT on implementation of indicators from the UN list should be previously edited through amendments of the Law on Official Statistics and System of Official Statistics. In this respect, it should be recalled that in the Programme of official statistics 2014–2018, there is the strengthening of coordination role of the Statistical Office in the coordination system, as one of general goals, as well as a wider use of administrative data sources, and necessity of introduction of technologies that will simplify the exchange of administrative sources between government authorities, but also the definition of protocols on administrative data exchange. Recommendations on what is an optimal option for each individual administrative statistics producer is given in table 7-1. It is important to mention that these NSSD recommendations are brought in consultations with all individual statistics producers during consultative process for the NSSD preparation.

In consultations with representatives of official and administrative statistics producers, 241 sustainable development indicators from the UN list have been analyzed. In this regard, table 7-2 provides an overview of their qualification to be accepted and implemented per what can be concluded that:

- At the moment, in the system of official statistics in Montenegro there are 49 indicators identified by name and content, or 20.3%;

- 34 indicators (14.1%) produced by content (fully or partially) are identified and can serve as an alternative for mentioned indicators from the UN list. In the first phase of introduction of sustainable development indicators by 2018, it should be examined to what extent indicators produced by content (fully or partially) can actually respond to requirements of indicators from the UN list, respectively, serve as their alternative. In line with that, the list of indicators that need to be introduced into the system of monitoring by 2030 should be completed accordingly;

- Additionally, 54 indicators (22.4%) will be introduced by 2018;

- When take into account all indicators that will be followed in Montenegro by 2018 (fully or partially), it will be possible to follow 137 indicators in total (56.8%);

- 104 indicators (43.2%) are not identified neither by name nor by content, and which introduction is not planned by 2018 (9 out of 104 indicators are not relevant for Montenegro, 12 indicators need to be analysed additionally in order to decide whether their implementation is needed after 2024). In that regard it has been analysed the possibility of their inclusion in national statistical system after 2024. In Table 7-3, dynamics of introduction of this group of indicators during the period of 2018–2024 has been defined. In that regard, 32 indicators will be introduced in the national statistical system during the period of 2018–2020, 24 indicators will be introduced during the period of 2020–2022 and 27 indicators in the period 2022–2024. This will enable introduction of 220 indicators in total (91.3% out of to-

Table 7 – 1: Overview of statistics producers in respect to status, number of indicators for which the institutions are responsible and recommendations

NAME OF INSTITUTION RESPONSIBLE	OFFICIAL PRODUCER	SUGGESTION	NUMBER OF INDICATORS FROM THE UN LIST FOR WHICH THE INSTITUTION IS RESPONSIBLE
MONSTAT	YES	-	55
Central Bank of Montenegro	YES	-	7
Health Insurance Fund	YES	-	1
Institute for Public Health	YES	-	20
Ministry of Finance	YES	-	30
Ministry of Science	YES	-	4
Customs Administration	YES	-	2
Department of Public Revenues	YES	-	2
Ministry of Sustainable Development and Tourism	NO	Apply to become an Official Statistics Producer	27
Environmental Protection Agency	NO	Apply to become an Official Statistics Producer	11
Agency for Electronic Communications and Postal Services of Montenegro	NO	Data validation by MONSTAT	2
Ministry of Agriculture and Rural Development	NO	Data validation by MONSTAT	14
Ministry of Justice	NO	Data validation by MONSTAT	2
Ministry of Education	NO	Data validation by MONSTAT	7
Ministry of Labor and Social Welfare	NO	Data validation by MONSTAT	2
Ministry of Transport and Maritime Affairs	NO	Data validation by MONSTAT	4
Ministry for Human and Minority Rights	NO	Data validation by MONSTAT	8
Ministry of Economy	NO	Data validation by MONSTAT	5
Ministry of Health	NO	Data validation by MONSTAT	4
Institute for Marine Biology	NO	Data validation by MONSTAT	3
Ministry of Foreign Affairs and European Integration	NO	Data validation by MONSTAT	7
Ministry of Interior Affairs	NO	Data validation by MONSTAT	19
Ombudsman	NO	Data validation by MONSTAT	1
Biotechnical Faculty	NO	Data validation by MONSTAT	2
Public Procurement Administration	NO	Data validation by MONSTAT	1
Real Estate Administration	NO	Data validation by MONSTAT	1

Table 7 – 2: *Overview of qualified national institutions for the implementation of indicators from the UN list*

	Number	Share
Number of indicators which are followed by name and content	49	20,3%
Number of indicators for which there is an alternative by content	34	14,1%
Number of indicators which introduction is planned for 2018	54	22,4%
Total number of indicators that will be followed in Montenegro by 2018	137	56,8%
Number of indicators which are not identified neither by name nor content, and which introduction is planned by 2018	104	43,2%
Total number of indicators in the UN list	241	100%

Table 7 – 3: *Overview of dynamics in monitoring indicators from the UN list in Montenegro*

Year	Total number of indicators that will be monitored in Montenegro	Number of indicators necessary to be introduced		Share
2016	49 (entirely, by name and content) +34 (there is an alternative by content)	-	20,3% +14,1%	34,4%
2018	137	54	+22,41%	56,8%
2020	169	32	+13,28%	70,1%
2022	193	24	+9,96%	80,1%
2024	220	27	+11,20%	91,2%

important to mention that the UN Statistical Commission, during 47th assembly, did not define methodology for calculation of all indicators. For 75 indicators (31,1% of total number of 241 indicators) the methodology has not yet been defined. Statistical Commission took over the obligation to determine missing methodologies in the following period..

Due to grouping according to the NSSD priority topics, sustainable development indicators from the UN list are divided in six thematic areas which correspond to the 2030 NSSD priority topics: human resources, social resources, natural resources, economic resources, management for sustainable development and financing for sustainable development. This division is done for statistical and administrative reasons, so that

the qualification represents the area to which an indicator primarily refers to, while other indicators are relevant for monitoring the measures in other thematic areas. The indivisibility, horizontal connection and multidimensional nature of sustainable development goals, tasks and indicators must be kept in mind.

In the Annex PIV, detailed overview of sustainable development indicators grouped in the six priority the NSSD topics is given. The overview also discloses if an indicator has been monitored in Montenegro and in which way, if it has been calculated and monitored for Montenegro by relevant international organizations, if it has been planned its introduction in the national monitoring system, as well as which institution is responsible in that respect.

In tables 7-4 to 7-11 is given overview of distribution of indicators from the UN list in relation to responsibilities of official statistics producers, and in the tables 7-12 to 7-29 in relation to responsibilities of administrative statistics producers in the context of the NSSD implementation monitoring, i.e. the 2030 Agenda for sustainable development. Beside the eight existing official statistics producers, it is considered necessary that the Ministry for Sustainable Development and Tourism as well as the Environmental Protection Agency should be given status of official statistics producers due to the improvement of the NSSD monitoring and reporting framework. Indicators have their own nomenclature determined by the UN list of sustainable development indicators.

7.1.1.1. Overview of distribution of indicators from the UN list by official statistics producers in Montenegro

Institution responsible: Statistical Office of Montenegro - MONSTAT

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Statistical Office – MONSTAT have been carried out – to take over and implement the indicators into the national circumstances:

- 16 indicators (by name and content) are fully monitored;
- 13 indicators (for which should create conditions to be fully introduced in the monitoring system by 2018) are partially monitored (there is an alternative by content);
- 17 indicators are planned to be monitored by 2018;
- In the period from 2018-2024 it is necessary to plan introduction of 9 indicators, per the dynamics that follows: 4 indicators (2018-2020), 2 indicators (2020-2022) and 3 indicators (2022-2024).

It is important to mention that the Statistical Office – MONSTAT produces a certain number of indicators whose introduction is not a part of the Programme of official statistics for the period 2014-2018 and they are not planned by the annual Research Plan. Those indicators are mostly available for a year during projected testing, but are not the subject of continuous statistical monitoring. With the establishment of cooperation with relevant international institutions and providing additional funds those indi

cators could be produced. These indicators (SDG 2.1.1, SDG 2.1.2, SDG 2.2.1, SDG 2.2.2, SDG 3.7.1, SDG 3.7.2, SDG 4.2.1, SDG 5.3.1, SDG 8.7.1) are obtained through MICS (Multiple Indicator Cluster Survey) in cooperation with the UNICEF, through the National Human Development Report (SDG 8.3.1), including material footprint (SDG 8.4.1, SDG 8.4.2, SDG 12.2.1) and domestic consumption of material (SDG 12.2.2) in cooperation with the UN Development Programme.

Statistical Office – MONSTAT will not be able to fulfil previously defined complex responsibilities within the NSSD implemen-

tation monitoring i.e. the 2030 Agenda for sustainable development unless the satisfying level of resource availability is reached (spatial, technological and financial), as well as appropriate level of human resources development. It is an enormous challenge which is necessary to support by significant increase of allocation in the Budget of Montenegro for provision of additional necessary resources, as well as for necessary additional statistical testing.

When it comes to the indicator which relates to calculation of official development assistance (SDG9. a.1), it is very important to establish cooperation between the Statistical

Table 7 – 4: Overview of responsibilities of the Statistical Office – MONSTAT

Institution responsible: MONSTAT		Indicator code
Indicators fully monitored (by name and content)	16	SDG3.2.1, SDG3.2.2, SDG4.4.1, SDG7.1.1, SDG8.1.1, SDG8.5.2, SDG8.6.1, SDG9.2.1, SDG9.2.2, SDG9.5.1, SDG12.5.1, SDG17.8.1, SDG 17.18.2, SDG 17.9.2, SDG 17.18.3, SDG 17.19.1
Indicators partially monitored (for which there is an alternative by content)	13	SDG2.3.1, SDG4.3.1, SDG4.5.1, SDG5. a.1 (a), SDG5.b.1, SDG7.2.1, SDG8.2.1, SDG9.1.2, SDG9.3.1, SDG9.a.1, SDG9.b.1, SDG10.4.1, SDG12.4.2
Indicator planned to be introduced by 2018	18	SDG1.1.1, SDG 2.1.1, SDG2.1.2, SDG2.2.1, SDG2.2.2, SDG 2.3.1, SDG2.4.1, SDG3.7.1, SDG3.7.2, SDG4.2.1, SDG5.3.1, SDG8.4.1, SDG8.4.2, SDG8.5.1, SDG8.7.1, SDG10.2.1, SDG12.2.1, SDG12.2.2
Indicators necessary to be introduced in the period from 2018 - 2024	9	SDG1.2.1, SDG1.2.2, SDG1.3.1, SDG1.4.1, SDG2.3.2, SDG2.c.1, SDG8.3.1, SDG11.1.1, SDG17.11.1

Office – MONSTAT and the Ministry of Foreign Affairs and European Integration, as well as to ensure inter-sectoral cooperation of all actors involved in providing and monitoring development assistance, respectively data collecting and processing in the field of development assistance.

Institution responsible: Central Bank of Montenegro

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Central Bank of Montenegro have been carried out – to take over and implement the indicators into the national circumstances:

- 1 indicator (by name and content) is fully monitored;
- 1 indicator is partially monitored (there is an alternative by content);

- 0 indicators are planned to be monitored by 2018;
- In the period from 2018–2024 it is necessary to plan introduction of 5 indicators, according to the dynamics that follows: 2 indicators (2018–2020), 1 indicator (2020–2022) and 2 indicators (2022–2024).

When it comes to the indicator which relates to calculation of official development assistance (SDG10. b.1), it is very important to establish cooperation between the Central Bank of Montenegro and the Ministry of Foreign Affairs and European Integration, as well as to ensure inter-sectoral cooperation of all actors involved in providing and monitoring development assistance, respectively data collecting and processing in the field of development assistance.

Table 7 – 5: *Overview of responsibilities of the Central bank of Montenegro*

Institution responsible: Central bank of Montenegro	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	1	SDG8.10.1
Indicators partially monitored (for which there is an alternative by content)	1	SDG17.3.2
Indicators planned to be introduced by 2018	0	
Indicators necessary to be introduced in the period from 2018 - 2024	5	SDG8.10.2 SDG10.b.1 SDG10.c.1 SDG17.3.1 SDG17.4.1

Institution responsible: Ministry of Finance
Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Ministry of Finance have been carried out – to take over and implement the indicators into the national circumstances:

- 8 indicators (by name and content) are fully monitored;
- 6 indicators are partially monitored (there is an alternative by content);
- 7 indicators are planned to be monitored by 2018;
- In the period from 2018–2024 it is necessary to introduce 9 indicators, according to the dynamics that follow: 4 indicators (2018–2020), 2 indicators (2020–2022) and 3 indicators (2022–2024).

Table 7 – 6: Overview of responsibilities of the Ministry of Finance

Institution responsible: Ministry of Finance	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	8	SDG2.a.1 SDG 11.4.1 SDG 14.a.1 SDG16.6.1 SDG17.1.1 SDG17.1.2 SDG 17.9.1 SDG 17.17.1
Indicators partially monitored (for which there is an alternative by content)	6	SDG 1.a.1 SDG 1.a.2 SDG2.b.1 SDG2.b.2 SDG8.b.1 SDG 17.3.2

Indicators planned to be introduced by 2018	7	SDG 3.b.2 SDG 4.b.1 SDG 6.a.1 SDG 8.9.1 SDG 15.a.1 SDG 15.b.1 SDG 17.13.1
Indicators necessary to be introduced in the period from 2018 - 2024	9	SDG1.5.2 SDG1.b.1 SDG2.a.2 SDG 10.5.1 SDG12.6.1 SDG17.7.1 SDG 17.10.1 SDG 17.12.1 SDG 17.16.1

When it comes to the indicators which relates to calculation of official development assistance (SDG2.a.2, SDG3.b.2, SDG4.b.1, SDG6.a.1, SDG15.a.1 and SDG15.b.1), it is very important to establish cooperation between the Ministry of Finance and European Integration, as well as to ensure inter-sectoral cooperation of all actors involved in providing and monitoring development assistance, respectively collecting and data processing in the field of development assistance.

Additionally, when it comes to indicator SDG10.6.1 (Share of members and right to vote of developing countries in the international organizations) it is very important to establish cooperation between Ministry of Foreign Affairs and European integrations with the Ministry of Finance.

Institution responsible: Institute for Public Health

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Institute for Public Health have been carried out – to take over

and implement the indicators into the national circumstances:

- 5 indicators (by name and content) are fully monitored;
- 3 indicators are partially monitored (there is an alternative by content);
- 8 indicators are planned to be monitored by 2018;
- In the period from 2018-2024, it is necessary to plan introduction of 4 indicators, according to the dynamics that follows: 2 indicators (2018-2020), 1 indicator (2020-2022) and 1 indicator (2022-2024).

Institution responsible: Customs Administration

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Customs Administration have been carried out – to take over and implement the indicators into the national circumstances:

- 0 indicators (by name and content) are fully monitored;
- 0 indicators are partially monitored (there is an alternative by content);
- 0 indicators are planned to be monitored by 2018;
- In the period from 2018-2024, it is necessary to plan introduction of 2 indicators, according to the dynamics that follows: 1 indicator (2018-2020) and 1 indicator (2022-2024).

Table 7 – 7: Overview of responsibilities of the
Institute for Public Health of Montenegro

Institution responsible: Institute for Public Health of Montenegro	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	5	SDG3.1.2, SDG3.3.2, SDG3.3.3, SDG3.3.4, SDG3.c.1
Indicators partially monitored (for which there is an alternative by content)	3	SDG3.3.1, SDG3.3.5, SDG3.a.1
Indicators planned to be introduced by 2018	8	SDG3.1.1, SDG3.4.1, SDG3.4.2, SDG3.5.1, SDG3.5.2, SDG3.6.1, SDG3.9.1, SDG3.9.3
Indicators necessary to be introduced in the period from 2018 - 2024	4	SDG3.8.1, SDG3.9.1, SDG3.b.1, SDG3.d.1

Table 7 – 8: Overview of responsibilities of the
Customs Administration

Institution responsible: Customs Administration	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	0	
Indicators partially monitored (for which there is an alternative by content)	0	
Indicators planned to be introduced by 2018	0	
Indicators necessary to be introduced in the period from 2018 – 2024	2	SDG15.7.1 SDG 15.c.1

Institution responsible: Department of Public Revenues

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Department of Public Revenues have been carried out – to take over and implement the indicators into the national circumstances:

- 0 indicators (by name and content) are fully monitored;
- 0 indicators are partially monitored (there is an alternative by content);
- 0 indicators are planned to be monitored by 2018;
- In the period 2018–2024 it is necessary to plan introduction of 2 indicators, according to the dynamics as follows: 1 indicator (2018–2020) and 1 indicator (2022–2024).

Table 7 – 9: Overview of responsibilities of the Department of Public revenues

Institution responsible: Department of Public Revenues	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	0	
Indicators partially monitored (for which there is an alternative by content)	0	
Indicators planned to be introduced by 2018	0	
Indicators necessary to be introduced in the period from 2018 - 2024	2	SDG 17.10.1 SDG17.12.1

Institution responsible: Health Insurance Fund of Montenegro

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Health Insurance Fund have been carried out – to take over and implement the indicators into the national circumstances:

- 1 indicator (by name and content) is fully monitored;
- 0 indicators are partially monitored (there is an alternative by content);
- 0 indicators are planned to be monitored by 2018;
- 0 indicators in the period 2018–2024.

Table 7 – 10: Overview of responsibilities of the Health Insurance Fund

Institution responsible: Health Insurance Fund	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	1	SDG3.8.2
Indicators partially monitored (for which there is an alternative by content)	0	
Indicators planned to be introduced by 2018	0	
Indicators necessary to be introduced in the period from 2018 - 2024	0	

Institution responsible: Ministry of Science

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Ministry of Science have been carried out – to take over and implement the indicators into the national circumstances:

- 3 indicators (by name and content) are fully monitored;
- 0 indicators are partially monitored (there is an alternative by content);
- 1 indicator is planned to be monitored by 2018;
- 0 indicators in the period 2018–2024.

Table 7 – 11: Overview of responsibilities of the Ministry of Science

Institution responsible: Ministry of Science	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	3	SDG9.5.2 SDG 14.a.1 SDG 17.6.1
Indicators partially monitored (for which there is an alternative by content)	0	
Indicators planned to be introduced by 2018	1	SDG 12.a.1
Indicators necessary to be introduced in the period from 2018 - 2024	0	

7.1.1.2. Overview of distribution of indicators from the UN list by administrative statistics producers in Montenegro

Institution responsible: Agency for Electronic Communications and Postal Services of Montenegro

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Agency for Electronic Communications and Postal Services have been carried out – to take over and implement the indicators into the national circumstances:

- 0 indicators (by name and content) are fully monitored;
- 0 indicators are partially monitored (there is an alternative by content);
- 1 indicator is planned to be monitored by 2018;
- 1 indicator is planned to be introduced in the period from 2022–2024.

Table 7 – 12: Overview of responsibilities of the Agency for Electronic Communications and Postal Service

Institution responsible: Agency for Electronic Communications and Postal Services	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	0	
Indicators partially monitored (for which there is an alternative by content)	0	

Indicators planned to be introduced by 2018	1	SDG 17.6.2
Indicators necessary to be introduced in the period from 2018 - 2024	1	SDG 9.c.1

Institution responsible: Environmental Protection Agency

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Environmental Protection Agency have been carried out – to take over and implement the indicators into the national circumstances:

- 0 indicators (by name and content) are fully monitored;
- 3 indicators are partially monitored (there is an alternative by content);
- 1 indicator is planned to be monitored by 2018;
- In the period from 2018-2024 it is necessary to plan introduction of 7 indicators, according to the dynamics that follows: 3 indicators (2018-2020), 2 indicators (2020-2022) and 2 indicators (2022-2024).

Table 7 – 13: *Overview of responsibilities of the Environmental Protection Agency*

Institution responsible: Environmental Protection Agency	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	0	

Indicators partially monitored (for which there is an alternative by content)	3	SDG6.2.1 SDG11.6.2 SDG15.1.2
Indicators planned to be introduced by 2018	1	SDG15.4.1
Indicators necessary to be introduced in the period from 2018 – 2024	7	SDG9.4.1 SDG14.1.1 SDG14.3.1 SDG14.5.1 SDG15.5.1 SDG 15.7.1 SDG 15.c.1

Institution responsible: Biotechnical Faculty

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Biotechnical Faculty have been carried out – to take over and implement the indicators into the national circumstances:

- 0 indicators (by name and content) are fully monitored;
- 0 indicators are partially monitored (there is an alternative by content);
- 0 indicators are planned to be monitored by 2018;
- In the period from 2018-2024 it is necessary to plan introduction of 2 indicators, according to the dynamics that follows: 1 indicator (2018-2020) and 1 indicator (2022-2024).

Table 7 – 14: Overview of responsibilities of the Faculty of Biotechnology

Institution responsible: Biotechnical Faculty	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	0	
Indicators partially monitored (for which there is an alternative by content)	0	
Indicators planned to be introduced by 2018	0	
Indicators necessary to be introduced in the period from 2018 – 2024	2	SDG2.5.1 SDG2.5.2

Institution responsible: Public Procurement Administration

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Public Procurement Administration have been carried out – to take over and implement the indicators into the national circumstances:

- 0 indicators (by name and content) are fully monitored;
- 0 indicators are partially monitored (there is an alternative by content);
- 0 indicators are planned to be monitored by 2018;
- In the period 2022–2024 it is necessary to plan introduction of 1 indicator.

Table 7 – 15: Overview of responsibilities of the Public Procurement Administration

Institution responsible: Public Procurement Administration	Number of indicators	Indicators code
Indicators fully monitored (by name and content)	0	
Indicators partially monitored (for which there is an alternative by content)	0	
Indicators planned to be introduced by 2018	0	
Indicators necessary to be introduced in the period from 2018 – 2024	1	SDG12.7.1

Institution responsible: Institute for Marine Biology

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Institute for Marine Biology have been carried out – to take over and implement the indicators into the national circumstances:

- 1 indicator (by name and content) is fully monitored;
- 0 indicators are partially monitored (there is an alternative by content);
- 1 indicator is planned to be monitored by 2018;
- In the period 2022–2024 it is necessary to plan introduction of 1 indicator.

Table 7 – 16: Overview of responsibilities of the Institute for Marine Biology

Institution responsible: Institute for Marine Biology	Number of indicators	Indicators code
Indicators fully monitored (by name and content)	1	SDG 14.b.1
Indicators partially monitored (for which there is an alternative by content)	0	
Indicators planned to be introduced by 2018	1	SDG 14.4.1
Indicators necessary to be introduced in the period from 2018 – 2024	1	SDG14.7.1

Institution responsible: Ministry of Economy

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Ministry of Economy have been carried out – to take over and implement the indicators into the national circumstances:

- 0 indicators (by name and content) are fully monitored;
- 3 indicators are partially monitored (there is an alternative by content);
- 0 indicators are planned to be monitored by 2018;
- In the period from 2018-2024, it is necessary to plan introduction of 2 in-

dicators, according to the dynamics that follows: 1 indicator (2018-2020) and 1 indicator (2022-2024).

Table 7 – 17: Overview of responsibilities of the Ministry of Economy

Institution responsible: Ministry of Economy	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	0	
Indicators partially monitored (for which there is an alternative by content)	3	SDG7.3.1, SDG7.b.1, SDG12.c.1
Indicators planned to be introduced by 2018	0	
Indicators necessary to be introduced in the period from 2018 – 2024	2	SDG9.3.2, SDG7.1.2

Institution responsible: Ministry of Agriculture and Rural Development

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Ministry of Agriculture and Rural Development have been carried out – to take over and implement the indicators into the national circumstances:

- 2 indicators (by name and content) are fully monitored;
- 1 indicator is partially monitored (there is an alternative by content);
- 4 indicators are planned to be monitored by 2018;

- In the period from 2018–2024 it is necessary to plan introduction of 7 indicators, according to the dynamics that follows: 3 indicator (2018–2020), 2 indicators (2020–2022) and 2 indicators (2022–2024).

Table 7 – 18: Overview of responsibilities of the Ministry of Agriculture and Rural Development

Institution responsible: Ministry of Agriculture and Rural Development	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	2	SDG 14.6.1 SDG 14.b.1
Indicators partially monitored (for which there is an alternative by content)	1	SDG15.1.1
Indicators planned to be introduced by 2018	4	SDG6.4.1 SDG6.4.2 SDG6.5.2 SDG15.2.1
Indicators necessary to be introduced in the period from 2018 - 2024	7	SDG6.3.2 SDG6.5.1 SDG 6.6.1 SDG 6.b.1 SDG 15.3.1 SDG15.4.2 SDG 15.6.1

Institution responsible: Ministry of Justice
Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Ministry of Justice have been carried out – to take over and implement the indicators into the national circumstances:

- 1 indicator (by name and content) is fully monitored;
- 0 indicators are partially monitored (there is an alternative by content);
- 0 indicators are planned to be monitored by 2018;
- In the period from 2022–2024 it is necessary to plan introduction of 1 indicator.

Table 7 – 19: Overview of responsibilities of the Ministry of Justice

Institution responsible: Ministry of Justice	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	1	SDG 16.a.1
Indicators partially monitored (for which there is an alternative by content)	0	
Indicators planned to be introduced by 2018	0	
Indicators necessary to be introduced in the period from 2018 - 2024	1	SDG16.3.2

Institution responsible: Ministry of Education

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Ministry of Education have been carried out – to take over and implement the indicators into the national circumstances:

- 2 indicators (by name and content) are fully monitored;
- 3 indicators are partially monitored (there is an alternative by content);
- 0 indicators are planned to be monitored by 2018;
- In the period from 2018–2024 it is necessary to plan introduction of 2 indicators, according to the dynamics that follows: 1 indicator (2018–2020) and 1 indicator (2022–2024).

Table 7 – 20: Overview of responsibilities of the Ministry of Education

Institution responsible: Ministry of Education	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	2	SDG4.1.1 SDG4.c.1
Indicators partially monitored (for which there is an alternative by content)	3	SDG4.2.2SDG4.7.1 SDG4.a.1
Indicators planned to be introduced by 2018	0	
Indicators necessary to be introduced in the period from 2018 - 2024	2	SDG4.6.1SDG12.8.1

Institution responsible: Ministry of Labour and Social Welfare

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Ministry Labour and

Social Welfare have been carried out – to take over and implement the indicators into the national circumstances:

- 0 indicators (by name and content) are fully monitored;
- 0 indicators are partially monitored (there is an alternative by content);
- 0 indicators are planned to be monitored by 2018;
- In the period from 2018–2024 it is necessary to plan introduction of 2 indicators, according to the dynamics that follows: 1 indicator (2018–2020) and 1 indicator (2022–2024).

Table 7 – 21: Overview of responsibilities of the Ministry of Labour and Social Welfare

Institution responsible: Ministry of Labour and Social Welfare	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	0	
Indicators partially monitored (for which there is an alternative by content)	0	
Indicators planned to be introduced by 2018	0	
Indicators necessary to be introduced in the period from 2018 - 2024	2	SDG5.4.1 SDG8.8.2

Institution responsible: Ministry of Transport and Maritime Affairs

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Ministry Transport and Maritime Affairs have been carried out – to take over and implement the indicators into the national circumstances:

- 3 indicators (by name and content) are fully monitored;
- 0 indicators are partially monitored (there is an alternative by content);
- 0 indicators are planned to be monitored by 2018;
- In the period 2022–2024 it is necessary to plan introduction of 1 indicator.

Table 7 – 22: Overview of responsibilities of the Ministry of Transport and Maritime Affairs

Institution responsible: Ministry of Transport and Maritime Affairs	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	0	
Indicators partially monitored (for which there is an alternative by content)	0	
Indicators planned to be introduced by 2018	0	

Indicators necessary to be introduced in the period from 2018 - 2024	1	SDG11.2.1

Institution responsible: Ministry for Human and Minority Rights

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Ministry for Human and Minority Rights have been carried out – to take over and implement the indicators into the national circumstances:

- 0 indicators (by name and content) are fully monitored;
- 1 indicator is partially monitored (there is an alternative by content);
- 0 indicators are planned to be monitored by 2018;
- In the period 2018–2024 it is necessary to plan introduction of 8 indicators according to the dynamics that follows: 3 indicators (2018–2020), 2 indicators (2020–2022) and 3 indicators (2022–2024).

Table 7 – 23: Overview of responsibilities of the Ministry for Human and Minority Rights

Institution responsible: Ministry for Human and Minority Rights	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	0	

Indicators partially monitored (for which there is an alternative by content)	1	SDG5.5.2
Indicators planned to be introduced by 2018	0	
Indicators necessary to be introduced in the period from 2018 - 2024	8	SDG5.1.1 SDG5.2.1 SDG 5.2.2 SDG5.5.1 SDG 5.a.2 SDG5.c.1 SDG10.3.1 SDG 11.7.2

Institution responsible: Ministry of Health

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Ministry Health have been carried out – to take over and implement the indicators into the national circumstances:

- 0 indicators (by name and content) are fully monitored;
- 0 indicators are partially monitored (there is an alternative by content);
- 0 indicators are planned to be monitored by 2018;
- In the period from 2018-2024 it is necessary to plan introduction of 4 indicators according to the dynamics that follows: 2 indicators (2018-2020), 1 indicator (2020-2022) and 1 indicator (2022-2024).

Table 7 – 24: Overview of responsibilities of the Ministry of Health

Institution responsible: Ministry of Health	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	0	
Indicators partially monitored (for which there is an alternative by content)	0	
Indicators planned to be introduced by 2018	0	
Indicators necessary to be introduced in the period from 2018 – 2024	4	SDG5.6.1 SDG5.6.2 SDG 6.b.1 SDG8.8.1

Institution responsible: Ministry of Foreign Affairs and European Integration

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Ministry of Foreign Affairs and European Integration have been carried out – to take over and implement the indicators into the national circumstances:

- 5 indicators (by name and content) are fully monitored;
- 0 indicators are partially monitored (there is an alternative by content);
- 1 indicator is planned to be monitored by 2018;
- In the period from 2018-2024 it is necessary to plan introduction of 1 indicators.

Table 7 – 25: *Overview of responsibilities of the Ministry of Foreign Affairs and European Integration*

Institution responsible: Ministry of Foreign Affairs and European Integration	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	5	SDG 10.6.1 SDG 16.4.2 SDG 16.8.1 SDG 16.a.1 SDG 17.9.1
Indicators partially monitored (for which there is an alternative by content)	0	
Indicators planned to be introduced by 2018	1	SDG 17.2.1
Indicators necessary to be introduced in the period from 2018 - 2024	1	SDG SDG16.8.1,17.16.1

Additionally, when it comes to indicator SDG10.6.1 (Share of members and right to vote of developing countries in the international organizations) it is very important to establish cooperation between Ministry of Foreign Affairs and European integrations with the Ministry of Finance.

When it comes to the indicators which relates to calculation of official development assistance, it is very important to establish cooperation between the Ministry of Finance (SDG2.a.2, SDG3.b.2, SDG4.b.1, SDG6.a.1, SDG15.a.1 and SDG15.b.1), the Statistical Office – MONSTAT (SDG9.a.1), the central

Bank of Montenegro (SDG10.b.1) and the Ministry of Foreign Affairs and European Integration, as well as to ensure inter-sectoral cooperation of all actors involved in providing and monitoring development assistance, or data collecting and processing in the field of development assistance.

Institution responsible: Ministry of Sustainable Development and Tourism

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Ministry of Sustainable Development and Tourism have been carried out – to take over and implement the indicators into the national circumstances:

- 6 indicators (by name and content) are fully monitored;
- 0 indicators are partially monitored (there is an alternative by content);
- 9 indicators are planned to be monitored by 2018;
- In the period from 2018–2024 it is necessary to plan introduction of 12 indicators according to the dynamics that follows: 5 indicators (2018–2020), 3 indicators (2020–2022) and 4 indicators (2022–2024)

Table 7 – 26: *Overview of responsibilities of the Ministry of Sustainable Development and Tourism*

Institution responsible: Ministry of Sustainable Development and Tourism	Number of Indicators	Indicator code

Indicators fully monitored (by name and content)	6	SDG 11.4.1 SDG11.6.1 SDG 12.4.1 SDG 12.b.1 SDG 17.14.1 SDG 17.19.1
Indicators partially monitored (for which there is an alternative by content)	0	
Indicators planned to be introduced by 2018	9	SDG 8.9.1 SDG 8.9.2 SDG11.7.1 SDG11.a.1 SDG 12.1.1 SDG 12.a.1 SDG13.2.1 SDG13.3.2 SDG17.18.1
Indicators necessary to be introduced in the period from 2018 - 2024	12	SDG6.1.1 SDG6.3.1 SDG 6.6.1 SDG 6.b.1 SDG9.1.1 SDG11.3.1 SDG11.3.2 SDG13.3.1 SDG 15.3.1 SDG15.8.1 SDG15.9.1 SDG 17.16.1

Institution responsible: Ministry of Internal Affairs

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Ministry of Internal Affairs have been carried out – to take over and implement the indicators into the national circumstances:

- 4 indicators (by name and content) are fully monitored;
- 1 indicator is partially monitored (there is an alternative by content);

- 5 indicators are planned to be monitored by 2018;
- In the period from 2018–2024 it is necessary to plan introduction of 9 indicators according to the dynamics that follows: 4 indicators (2018–2020), 2 indicators (2020–2022) and 3 indicators (2022–2024).

Table 7 – 27: Overview of responsibilities of the Ministry of Internal Affairs

Institution responsible: Ministry of Internal Affairs	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	4	SDG 16.4.2 SDG 16.9.1 SDG 16.10.2 SDG 17.9.2 SDG 17.17.1
Indicators partially monitored (for which there is an alternative by content)	1	SDG13.1.2
Indicators planned to be introduced by 2018	5	SDG1.5.3 SDG 10.7.2 SDG11.b.1 SDG 11.b.2 SDG13.1.1
Indicators necessary to be introduced in the period from 2018 - 2024	9	SDG 1.5.1 SDG16.1.1 SDG 16.1.3 SDG 16.2.2 SDG 16.2.3 SDG 16.3.1 SDG 11.5.1 SDG 11.5.2 SDG 16.10.1

Institution responsible: Ombudsman

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Ombudsman have been carried out – to take over and implement the indicators into the national circumstances:

- 0 indicators (by name and content) are fully monitored;
- 0 indicators are partially monitored (there is an alternative by content);
- 0 indicators are planned to be monitored by 2018;
- In the period from 2022-2024 it is necessary to plan introduction of 1 indicator.

Table 7 – 28: Overview of responsibilities of Ombudsman

Institution responsible: Ombudsman	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	0	
Indicators partially monitored (for which there is an alternative by content)	0	
Indicators planned to be introduced by 2018	0	
Indicators necessary to be introduced in the period from 2018 - 2024	1	SDG16.b.1

Institution responsible: Real Estate Administration

Analysing indicators from the UN list, the following assessments on qualification and responsibilities of the Real Estate Administration have been carried out – to take over and implement the indicators into the national circumstances:

- 0 indicators (by name and content) are fully monitored;
- 0 indicators are partially monitored (there is an alternative by content);
- 0 indicators are planned to be monitored by 2018;
- In the period from 2022-2024 it is necessary to plan introduction of 1 indicator.

Table 7 – 29: Overview of responsibilities of the Real Estate Administration

Institution responsible: Real Estate Administration	Number of indicators	Indicator code
Indicators fully monitored (by name and content)	0	
Indicators partially monitored (for which there is an alternative by content)	0	
Indicators planned to be introduced by 2018	0	

Indicators necessary to be introduced in the period from 2018 - 2024	1	SDG1.4.2

7.1.2. Available national sustainable development indicators which can be classified as sustainable development indicators

The 2030 NSSD has a list of sustainable development indicators that, apart from the sustainable development indicators from the UN list, determines indicators important in relation to the specific national needs. Also, this group of indicators is arranged according to the priority themes of the 2030 NSSD. In determining national indicators, it was considered that these indicators are already being followed or that it is easy to include them in the monitoring system in a short period. Also, consideration was given to achieving a greater level of compatibility with monitoring indicators within the existing monitoring system toward relevant international organizations. Sustainable development indicators from the UN list are linked to the national indicators for which it has been estimated that can contribute to a certain extent to a more complete national reporting in reference to requirements of the UN indicators, in such a way that national indicators do not represent an alternative by content to the UN indicators. Some of the national indicators have been suggested as new indicators which should be introduced in the monitoring system on the basis of expert estimation that existing circumstances enable their relatively simple introduction, therefore defined authorities need to plan measures for their introduction in the monitoring system. In the period until 2018

competent institutions responsible for the monitoring of national indicators for which they have not been determined during the drafting process of NSSD until 2030, need to be defined. In NSSD Action Plan, national indicators have been associated to some extent to expected target outcome values in 2030 or, where possible, in 2020, or target outcome values that could be reached in the period 2020–2030.

The following nomenclature for the national indicators has been introduced: first two letters (NI) indicate the national indicator; the following one or two letters indicate the thematic segment of the indicator (“HR” is a code for human resources, “S” for social, “N” for natural, “E” for economic, “G” sustainable development governance); numeric value indicates the indicator order on the list of national indicators within given thematic segment; name of the majority of national indicators contains also designation of the institution responsible for its monitoring, as well as the classificational designation of the affiliation to one of existing lists of national indicators (e.g. EPA designates the national list of indicators of the Environmental Protection Agency, MDG marks an indicator from the Millennium Development Goals’ list) Overview of the national sustainable development indicators is shown in the Annex PV.

The national indicators for the NSSD until 2030 implementation are proposed despite existing limitations which are caused by still present shortcomings in data collecting and processing in almost all areas relevant to sustainable development. However, it is expected that the progress is going to be achieved by the improvement of the NSSD indicators monitoring system, and especially selected composite indicators. In fact, the

2030 Agenda for sustainable development obliges us to have indicators that will be: „rigorous and based on evidence, informed by country-led evaluations and data which is high-quality, accessible, timely, reliable and disaggregated by income, sex, age, race, ethnicity, migration status, disability and geographic location and other characteristics relevant in national context “.

7.1.3. Available international indicators which can be classified as sustainable development indicators

Beside the sustainable development indicators form the UN list, for the establishment of monitoring system for the 2030 NSSD implementation, relevant indicators which are not followed-up in Montenegro are considered, but they represent the reporting instruments of international organizations in certain occurrences and processes in Montenegro. This group represents indicators for which it has been estimated that to a certain extent can contribute to a more complete national reporting in reference to the requirements of the UN indicators, but in such a way that they do not represent alternatives by content to UN indicators. Additionally, the way in which international organizations collect data on monitored processes and occurrences, or the way how the values of certain indicators in Montenegro are calculated, has not been determined. In the Table 7-30 is given overview of 32 indicators which are, by the implementation of this approach, identified as relevant for the monitoring of sustainable development of Montenegro. The following nomenclature is introduced: the first two letters (II) indicate international indicators; the following two or three letters indicate international organization responsible for the monitoring of the indicator (e.g. “WB” indicates World

Bank, WHO indicates World Health Organisation, etc.); numeric value indicates order of indicators on the list of international indicators.

Table 7 – 30: Overview of international indicators

Code of indicator from the UN list	Code of indicator of international organizations	Name of indicator of international organizations	International organization responsible	Indicator is consistent to a certain extent by name and content with the indicators from the UN list?
SDG1.2.1	MIWB01	Proportion of population living below the national poverty line, by sex and age	World Bank	NO
SDG2.5.2	MIFAO02	Genetic diversity of terrestrial domesticated animals	Food and Agriculture Organization of the United Nations	NO
SDG2.a.2	MIWB03	Net official development assistance and official aid received (current US\$)	World Bank	NO
SDG3.d.1	MIWHO04	IHR capacity score: Preparedness	World Health Organization	YES
SDG5.5.1	MIUCLG05	Women in national parliaments	Inter-Parliamentary Union or United Cities and Local Governments	NO
SDG6.1.1	MIWHO06	Proportion of population using safely managed drinking water services	WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation	NO
SDG7.1.2	MIWB07	Access to non-solid fuel (% of population)	World Bank, Sustainable Energy for all (SE4ALL) database from WHO Global Household Energy database	NO
SDG9.4.1	MIIEA08	International Energy Agency	International Energy Agency	NO

SDG10.1.1	MIWB09	Growth rates of household expenditure or income per capita among the bottom 40 per cent of the population and the total population	World Bank, Global Database of Shared Prosperity (GDSP) circa 2007 - 2012	YES
SDG10.b.1	MIIMF10	Foreign direct investment, net inflows (% of GDP)	International Monetary Fund, Balance of Payments database	NO
SDG12.6.1	MIGRI11	Target 12.6 Live Tracker - GRI Sustainability Disclosure Database. Number of companies that have joined the UN Global Compact Initiative.	GRI Sustainability Disclosure Database	NO
SDG14.1.1	MICI12 MIIOC13	1) Ocean Health Index 2) Floating Plastic Debris	1) Conservation International, National Center for Ecological Analysis and Synthesis (NCEAS), Sea Around Us, University of British Columbia, University of California at Santa Barbara 2) Intergovernmental Oceanographic Commission of UNESCO	NO
SDG14.2.1	MICI14	Ocean Health Index	Conservation International, National Center for Ecological Analysis and Synthesis (NCEAS), Sea Around Us, University of British Columbia, University of California at Santa Barbara	NO
SDG14.3.1	MICI15	Ocean Health Index	Conservation International, National Center for Ecological Analysis and Synthesis (NCEAS), Sea Around Us, University of British Columbia, University of California at Santa Barbara	NO

SDG14.5.1	MIWDPA16 MIBI17	1) Percentage of marine and coastal areas covered by protected areas 2) Protected area coverage of Key Biodiversity Areas	1) WDPA (World Database on Protected Areas) 2) BirdLife International IUCN and AZE (Alliance for Zero Extinction)	NO
SDG14.c.1	MIOLA18	Oceans & Law of the Sea		YES
SDG15.3.1	MIFAO19	Arable land (% of land area)	Food and Agriculture Organization of the United Nations	NO
SDG15.5.1	MIUCN20	Red List Index	International Union for Conservation of Nature	YES
SDG15.7.1	MIUCN21	Red List Index for Species in Trade	International Union for Conservation of Nature	NO
SDG16.1.1	MIWHO22	Number of victims of premeditated murder by age, gender, modus and perpetrator	UNODC-WHO	YES
SDG16.7.2	MIWB23	Government Effectiveness	World Bank	NO
SDG17.2.1	MIWB24	Net official development assistance and official aid received (current US\$)	World Bank	NO
SDG17.3.1	MIWB25	Foreign direct investment, net inflows (% of GDP)	World Bank	NO
SDG17.4.1	MIWB26	Total Debt Service (% of export of goods, services, and primary income)	World Bank	YES
SDG17.6.1	MIWB27	Technical cooperation grants (BoP, current US\$)	World Bank	NO
SDG17.6.2	MIWB28	Internet users (per 100 people)	World Bank	NO
SDG17.7.1	MIWB29	Technical cooperation grants (BoP, current US\$)	World Bank	NO
SDG17.9.1	MIWB30	Net official development assistance and official aid received (current US\$)	World Bank	NO

SDG17.10.1	MIWB31	Tariff rate, applied, weighted mean, all products (%)	World Bank	NO
SDG17.11.1	MIWB32	Exports of goods and services (% of GDP)	World Bank	NO
SDG17.13.1	MIWEF33 MIWEF34	Global Competitiveness Index Doing Business economy rankings	World Economic Forum World Economic Forum	YES YES

7.1.4. Selected composite indicators for cumulative monitoring of sustainability trends

The 2030 NSSD imposes the necessity of introducing systemic, cumulative indicators for national sustainable development monitoring. While there is a growing consensus for the need to monitor sustainability in a systemic and multidisciplinary way, decisions and policies are generally implemented at the national and local level. Therefore, it is important to find a compromise to bridge the gap between strictly scientific need for systemic considerations, on the one hand, and pragmatic needs of management process, on the other hand, to have certain activities monitored, and assessed, and based on this to make informed decisions at the national level.

This means that many different indicators are needed to measure the progress of the NSSD implementation. For this purpose, composite systemic indicators can be used as they help comprehensively monitor changes in the society compared to the overall effectiveness of the NSSD until 2030 implementation. Meanwhile, sustainable development indicators from the UN list and national indicators can be used for specific measures or

group of measures. Complementary to this, composite systemic indicators can help to, in an easy way, inform decision-makers and the public about the progress of Montenegro on its way to sustainability.

As the aim is to consider and establish sustainable development as a multi-sectoral – vertically and horizontally – process, it is also necessary to have composite indicators for monitoring of the implementation progress of the sustainable development policy to paint a complete picture of its implementation effects. Therefore, analysis of extensive list of composite indicators has been made, which are estimated relevant for the NSSD until 2030 monitoring; afterwards a the selection of those can be introduced in the monitoring system of the NSSD implementation in respect to the existing circumstances and limitations. The selection of indicators has been made in accordance with available information and relevant scientific and technical literature¹, considering the following criteria:

1 OECD and JRC, 2008. Handbook on Constructing Composite Indicators: Methodology and user guide, OECD 2008.

Table 7 – 31: Overview of composite indicators

	Human resources	Social resources	Natural resources	Economic resources	Sustainable development management	Sustainable development financing
Suggested composite indicators	Human Development Index	Gender Inequality Index	Ecological Footprint	Resource Productivity	Environmental Democracy Index	Does not exist
		Social Progress Index	Domestic Material Consumption	Genuine Progress Indicator	Environmental Performance Index	
			Land Consumption			

- Is there scientific credibility or institution credibility standing behind a certain indicator?
- Is the research question that treats certain indicator precise and clear?
- Is there local importance and relevance of indicators?
- Is the indicator relevant for the NSSD priority theme?
- Is the availability of indicators' monitoring results possible over time, especially considering the most recent years?
- Is regular publication of new data possible?
- Is it relevant to compare value of indicators between countries?

To ensure adequate coverage of the six priority themes of the 2030 NSSD while avoiding complicated reporting mechanisms and processes, one or two composite indicators for each thematic area have been identified.

For the NSSD implementation monitoring a **total of ten composite indicators** is selected, as they are key for providing an overall illustration of sustainable development progress in Montenegro. Improvement of the results of such selected indicators in the time horizon of the NSSD implementation represents a clear signal that Montenegro is on the road to sustainable development, considered as a whole, as well as within individual thematic segments. An overview of selected composite indicators is given in the Table 7-31, while detailed information on all indicators ("fact sheets") can be find in the Annex PVI.

From above mentioned ten indicators, six have already undergone national scrutiny during the time of the 2030 NSSD drafting, or within programme activities of the UN Development programmes. As these indicators must be introduced in the NSSD until 2030 implementation monitoring system, their detailed description is provided in subparagraphs from 7.2.4.1-7.2.4.5. of this chapter. It is about the following indicators:

1. **Ecological Footprint (EF)** – Indicator important for Montenegro due its commitment to base its development on the concept of “ecological state”;

2. **Human Development Index (HDI)** – Universal indicator that displaces the development form strictly economic categories;

3. **Gender Inequality Index (GII)** – shows the gender equality aspect of social development;

4. **Domestic Material Consumption (DMC);**

5. **Resource Productivity (RP)** – DMC and RP are the circular economy indicators important for the assessment of efficiency of resource usage in the economy, or preservation of limited natural resources;

6. **Land Consumption (LC)** – Indicator that measures the sustainability trend of land consumption as a non-renewable resource particularly exposed to growing anthropogenic pressures.

It is important to mention that the process of national testing of remaining four composite indicators has not been yet initiated, as well as control and confirmation by MONSTAT, and therefore, before inclusion into the NSSD until 2030 monitoring and reporting system, it is necessary to test them to check their applicability and relevance in the Montenegrin context. To this end, it is necessary to realize pilot projects for introduction of all four indicators in the period after the NSSD until 2030 adoption, but before the First Progress Report in 2019. Pilot projects should help in testing possibilities of the introduction of above mentioned indicators into official statistical system of

Montenegro, which represents a precondition for their regular monitoring in the future, by updating every two or three years. After a successful pilot phase, those indicators that are shown to be relevant and applicable in the Montenegrin context should be considered for inclusion in the process of the NSSD until 2030 monitoring in the first regular report of the 2030 NSSD, as well as for possible implementation in the reporting for the period after 2019. It is about the following indicators:

1. **Social Process Index (SPI)** – Measures three basic dimensions of social progress (basic human needs, foundation of wellbeing, and opportunity) since it consists of parameters which are highly compatible with sustainable development goals;

2. **Genuine Progress Indicator (GPI)** – or its precursor, index of sustainable economic welfare, measures country's net income, including non-market benefits, but considering negative effects that current production and current income creation have on the resources necessary for the generation of income;

3. **Environmental Democracy Index (EDI)** – Measures efficiency of environmental governance, especially considering legal obligations that refer to collection and transparency of information on the environment, participation of public, as well as justice;

4. **Environmental Performance Index (EPI)** – Measures countries' performances about the implementation of environmental policy within two goals – protection of human health and protection of ecosystems – divided in nine issue areas, examining which country

is close to achieving absolute goals defined through international obligations (multilateral agreements), national standards and scientific consensus.

It is important to mention that a composite indicator which could be used for the monitoring of thematic area **financing for sustainable development** does not exist. Basically, the financing for sustainable development refers to three elements:

- Public domestic resources mobilization for sustainable development, or funds provided for sustainable development by the Government and local governments
- Domestic and external private resources mobilization for sustainable development or funds provided for sustainable development by domestic and public resources;
- External public resources mobilization for sustainable development, or funds provided for sustainable development by foreign countries and multilateral organizations.

Composite indicators that corresponds to this thematic area should consider all three previous elements, but in this moment, a relevant international organization that globally processes and publishes the data for individual countries does not exist. On the other hand, for the purposes of reporting on financing for sustainable development within the 2030 NSSD implementation, these data should be monitored at the national level. The Ministry of Finance should be in charged in this respect.

7.1.4.1. Ecological Footprint

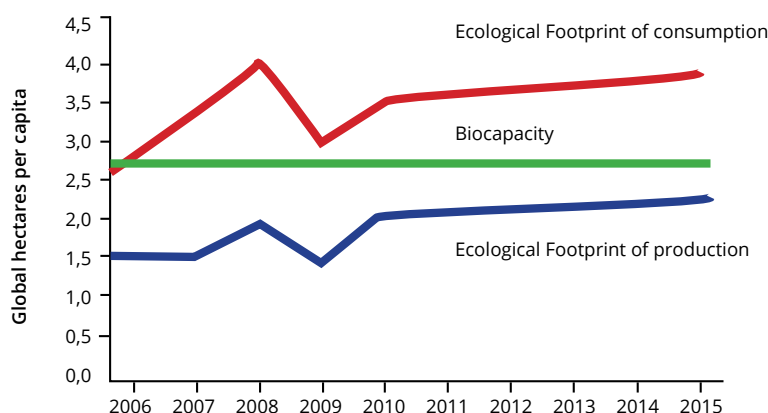
The Ecological Footprint belongs to the group of system indicators for cumulative analysis of sustainability trend, because it is intended to offer a comprehensive picture of Montenegro's societal **demand** on renewable resources and ecosystem services in relation to the **availability** of such resources and services from natural ecosystems. Its main added value is the capability to point out the balance between competing human activities (e.g. agriculture, forestry, fishery, urbanization, production, etc.)¹. Just as financial statements track income in relation to expenditures, the Ecological Footprint measures the demand of the population over ecological resources provided by ecosystems.

On the supply side, the **biocapacity** of a nation represents the amount of available resources generated by its ecological assets (including forestry land, pastures, agricultural land, hunting and fishing areas and built-up areas), while, from the demand viewpoint, **Ecological Footprint** measures the ecological assets that a population needs for producing all the resources it consumes (e.g. plant-based foods and fiber products, livestock and fish products, wood and other wood products, space for urban infrastructure, and forests to absorb carbon dioxide emissions from fossil fuels).

Both Ecological Footprint and biocapacity are expressed in global hectares (gha) – a hectare-equivalent unit representing the capacity of a hectare of land, comparable with global average productivity. The Eco-

¹ Read more: Global Ecological Footprint Network, Study on Ecological Footprint of Montenegro, 2015.

Chart 7-1: *Ecological Footprint of consumption per capita (red line), biocapacity (green line) and Ecological Footprint of production (blue line) in Montenegro, 2006-2015. Area between the Ecological Footprint of consumption and biocapacity indicates the presence of biocapacity accumulating deficit. The results for the period 2006-2011 are based on data obtained by monitoring, while the results for the period 2012-2015 are based on projections.*



logical Footprint of each country can be compared to its biocapacity – when the Ecological Footprint becomes greater than the biocapacity, then that country has a biocapacity deficit.

Calculation of Montenegro's Ecological Footprint was prepared for the needs of the 2030 NSSD drafting in cooperation between Global Footprint Network and the Ministry of Sustainable Development and Tourism of Montenegro. According to the results of Ecological Footprint for Montenegro for the period 2006–2015, Montenegro's Ecological Footprint increased (+45%) from 2.7 to 3.9 gha per person, while its biocapacity remained almost constant, shifting from 2.70 to 2.67 gha per person. (Chart 7-1).

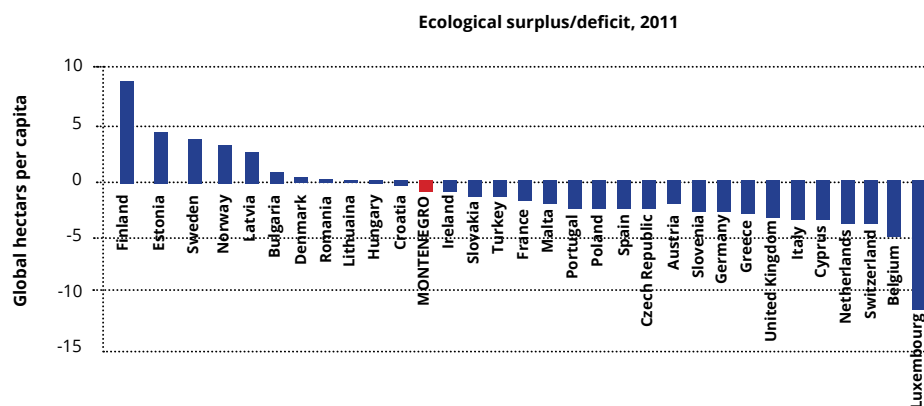
that the demand for energy, fossil fuels and energy intensive goods (or carbon footprint component) is around 45% of Montenegro's Footprint, while forest ecosystems account for more than 75% of total biocapacity of the country. In 2015, Montenegro experienced an ecological deficit as its biocapacity could only meet about 70% of the overall demand for resources and services of its residents.

The results also show that, during the reference period, the gap between the resources and services available in Montenegro and what is used by the population of Montenegro has increased, and therefore the dependence on the biocapacity of foreign countries has increased¹. However, it is noted that the

Disaggregation of Ecological Footprint and biocapacity values of Montenegro shows

¹ Read more: Global Ecological Footprint Network, Study on Ecological Footprint of Montenegro, 2015.

Chart 7-2: Biocapacity balance (Ecological Footprint minus biocapacity) of Montenegro and chosen countries, in 2011 (data is from 2011 since it was the last year when the results were available for all countries in the sample)



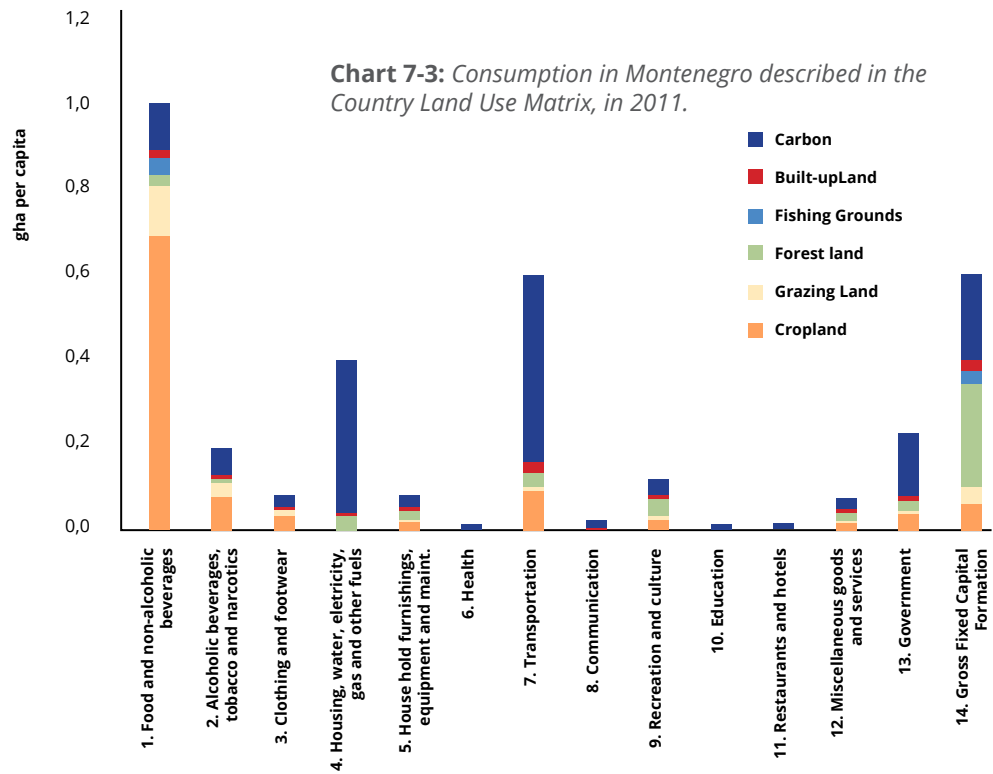
gap of Montenegro's biocapacity, in another words its deficit in biocapacity, is lower that of other European countries (Chart 7-2).

Further disaggregation of the Ecological Footprint of Montenegro by categories of consumption (Chart 7-3), indicates that the cropland Footprint, due to food and alcohol consumption and the carbon Footprint of transportation, are the two main components of Montenegro's Ecological Footprint, accounting for approximately 20% and 12% of the total country's Footprint, respectively.

Finally, assessment of the efficiency of the production activities of the Montenegrin economy in respect to the renewable resources and services (expressed through economic output, or GDP achieved per consumed global hectare of Ecological Footprint) showed that that there is a **significant room for improving resource efficiency** of economic activities. Improvement of the production efficiency of

key sectors in the national economy and promotion of goods import (such as foods and fuel) from countries with more efficient ecological production processes (eco-efficient supply) can be a mode to decrease the risk exposure, decrease the dependence of the country on natural capital from outside its borders and shift towards sustainability.

The Ecological Footprint analysis enables the identification of intervention opportunities (i.e., indicates where the "hot spots" are in the disaggregation of biocapacity and Footprint). However, this analysis must be complemented by other indicators specific for certain issues and goals to ensure the development and implementation of policies. Once policies are implemented, systemic indicators such as the Footprint may provide insight on



cumulative effects of different policies specific for certain sectoral goals. Comparative advantage of Ecological Footprint, as an indicator integrated in the National Strategy for Sustainable Development of Montenegro until 2030, lies in its capacity to document at the macro level the key components of the overall resource sustainability of Montenegro.

However, it is necessary to bear in mind that the calculation of the Ecological Footprint only monitors the key set of natural resources and services, or renewable resources and capacity of carbon allocation/sequestration, and does not monitor human, social and economic resources. Joint use of the Ecological Footprint and the Human Development

Index (HDI) can provide a better picture of Montenegro's overall path towards welfare and sustainability, making them mutually supportive (Chart 7- 4); Joint use of the Ecological Footprint and the Domestic Material Consumption (DMC) can ensure the monitoring of a wider spectrum of natural resources (Chart 7-7).

Data available within the UN are used for the Ecological Footprint calculation, primarily within the UN FAO. The control and confirmation of the Ecological Footprint calculation by the MONSTAT, for now, has not been carried out, as well as the assessment of possible introduction of this indicator in the official statistical system. The introduction of this indicator into the system of official

Montenegro Ecological Footprint - HDI, 2006 - 2013

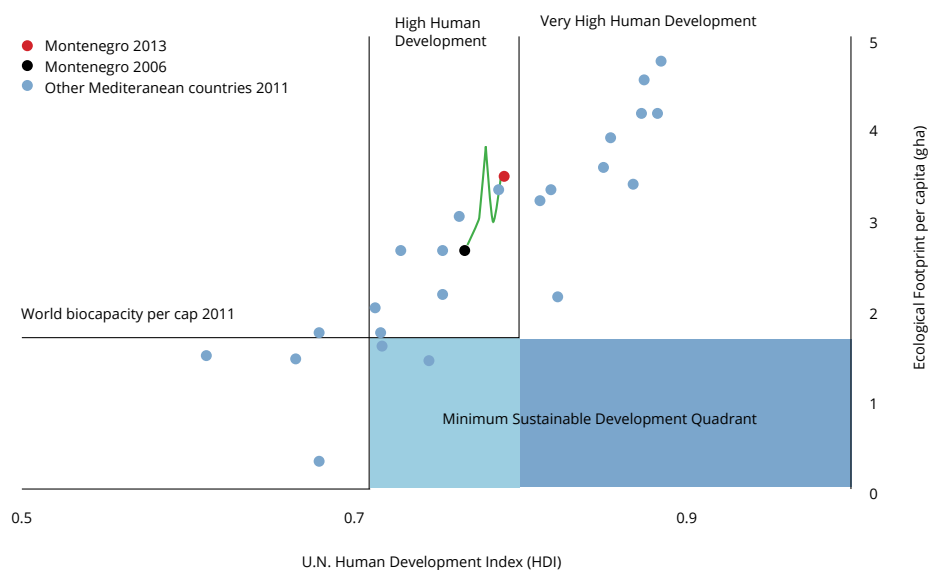


Chart 7-4: Montenegro's Ecological Footprint path and HDI in the period 2006-2013 marked with the red dot, while blue dots represent Mediterranean countries in 2011. Only two countries in the region of the Mediterranean meet the minimum requirements necessary for achieving sustainable development (shown in blue shaded area in the lower right corner of the Chart) i.e. meet two conditions: the footprint per capita is lower than world's biocapacity of 1,8 gha and the HDI reaches at least 0,71.

statistics is necessary as to enable its continuous monitoring and updating every 2 – 3 years. Therefore, it is necessary to enable capacity building (such as technical trainings, workshops, and roundtables) for institutions, experts and students in the coming years. If the input – output table necessary for reliable diagnosis of the material flow of Montenegro is prepared (for now, the calculation of DMC has been done with a set of restrictions), it is necessary to then perform a detailed environmentally-extended input-output analysis for Montenegro to

identify concrete economic sectors responsible for high intensity of the Ecological Footprint of Montenegro's economy, either in absolute statement, or in similar sectors in the neighboring countries. In this way support can be offered to aimed development sectoral policies in the context of increase of ecological resource efficiency in the domestic production and supply chains. It is optimal that following mentioned steps keep on realizing within the introduction of the UN System of Environmental-Economic

accounting – SEEA¹ that offers overall frame for the national calculation and statistics in this period.

7.1.4.2. Human Development Index (HDI)²

Future generations have a basic right to enjoy the same amount of resources we enjoy today, i.e. right to have long-term and secure access to ecological values where the necessity of maintenance of natural resources availability and basic ecosystem services is at the level of present availability.

While ecological sustainability conditions, or life in the context of what nature provides may be assessed with composite systemic indicators such as the Ecological Footprint, material wellbeing of humans can be nearly assessed with the Human Development Index (HDI). According to the HDI from 0.71 or more is “High human development”. In the period between 2006 – 2013 Montenegro’s value increased from 0.77 to 0.79 or 3%. The question is how this growth is achieved, whether it is sustainable for a long period and if it contributes to the maintenance of natural resources and basic ecosystem services for the generations to come.

Combination of the Human Development Index and the Ecological Footprint provides comparative assessment at the macro-level of a country’s progress towards achieving of a comfortable life in the framework of the contemporary limitations (Chart 7-4). Slight growth of the HDI (+ 3%) of Montenegro is achieved due to a noticeable increase in the

Ecological Footprint (+ 30%), from 2.7 gha per capita (in 2006) to 3.5 gha per capita (in 2013). The slight increase of the HDI along with the greater increase of the Ecological Footprint, signals that economic growth in Montenegro has entered an inefficient resource path. According to the Analysis shown in the Figure 7-4 there is a potential for changes of that unsustainable path and achievement of long-term sustainable development of Montenegro.

7.1.4.3. Gender Inequality Index (GII)³

The Gender Inequality Index (GII) shows inequality in the three dimensions: reproductive health, empowerment and economic status. From 2010 GII is a part of Global report on Human Development. However, this indicator was calculated in Montenegro for the first time in 2014 and its value was 0,172. This result positioned Montenegro in 37th place, amongst 155 countries involved in the report. This further indicates that there is no drastic gender inequality in Montenegro. For example, 17.3 percent of parliamentary seats are held by women, 84% of adult women have reached at least a secondary level of education (compared to 95% of male counterparts), female participation in the labor market is 43% (compared to 57% for men). Detailed data on GII Index for Montenegro are given in the Annex PVI.

7.1.4.4. Domestic Material Consumption (DMC) and Resource Productivity (RP)

Like the Ecological Footprint, DMC is a composite systemic indicator for cumulative

¹ More on: <http://unstats.un.org/unsd/envaccounting/seearev/>.

² Human Development Index (HDI)

³ Gender Inequality Index (Gender Inequality Index, GII)

monitoring of sustainable trends. Method of natural resources productivity determination within the national economy reflects in the assessment of aggregate indicator of Domestic Material Consumption, DMC, in absolute and relevant value. Dividing GDP by absolute value of DMC provides Resource Productivity, or RP. Therefore, it is very important that within regular statistic reporting, the level and the dynamics of DMC and RP are followed in the framework of the national economy, as well as comparatively.

Economic and efficient use of natural resources is a key component of the strategy for sustainable development. When considering sustainable development of Montenegrin society, must be consider all aspects of efficient natural resource management on which relies the circular economy concept. The efficient use of resources and adoption of circular economy principles represent preconditions for smart development and the increase of concurrency of Montenegrin economy while reducing the environmental impact, i.e. means that can significantly contribute to the realization of the aspirations on the ecological state and achievement of goals in the EU accession process.

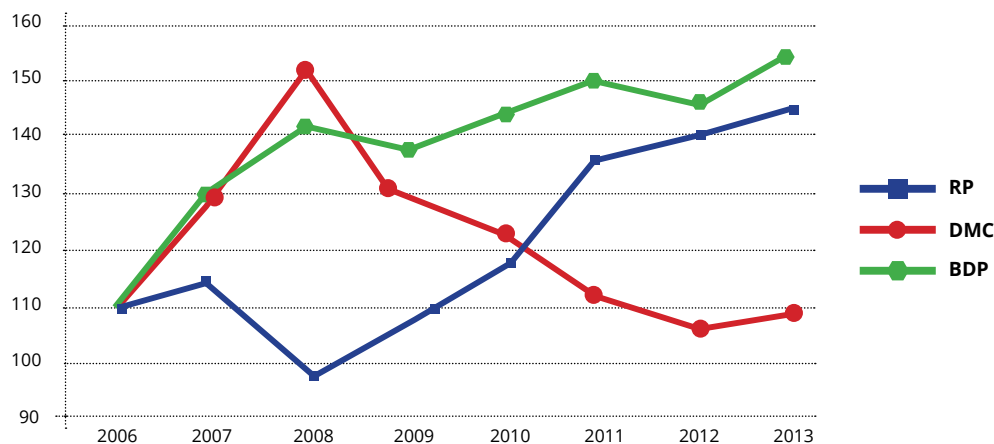
Efficient use of the resources represents economic use of the resources to respect the natural as well as the social environment. This further means that paths for resource use, economic activities and human wellbeing should start to diverge mutually, especially to be inverse in relation to the environmental pollution. These types of diverges are known as decoupling. Generally, there are two ways of achieving impact separation process: 1) to direct economic activities towards less use of natural resources, while reducing negative impacts on the environment; and 2) to introduce competitive

concepts into the concept of GDP, which quantify economic activity not only through monetary, but also through alternative criteria.

Materials that make inputs for calculation of domestic material consumption are divided into four categories: biomass, fossil fuels, metals and minerals, export and import of materials. According to the EUROSTAT, Domestic Material Consumption, DMC, is expressed by tons per capita (t/per capita). It is defined as the total amount of material directly used in an economy and equals direct material inputs (DMI) minus exports (E). DMI measures the direct input of materials for the use in the economy, and equals domestic extraction (DE) plus imports (I). For the per capita calculation of the indicator the average population is used (the arithmetic mean of the population on the 1st January of two consecutive years). The theory of Economy-wide material flow accounts includes compilations of the overall material inputs into national economy, the changes of material stock within the economy and the material outputs to other economies or to the environment. It is important to note that the term "consumption" as used in DMC denotes apparent consumption and not final consumption. The Resource Productivity (RP) indicator has been chosen as a lead indicator in the collection of indicators for the measurement of resource usage efficiency. This indicator assesses the progress towards the goals of the Europe 2020 flagship initiative on Resource Efficiency.

Analysis conducted within the National Human Development Report in Montenegro (UNDP, 2014) indicates that in the domestic material consumption (DMC) of Montenegro consumption of metals in 2012 was a little over 1%, which indicates that the largest part

Chart 7-5: Comparison of RP, DMC and GDP for the period 2006-2013



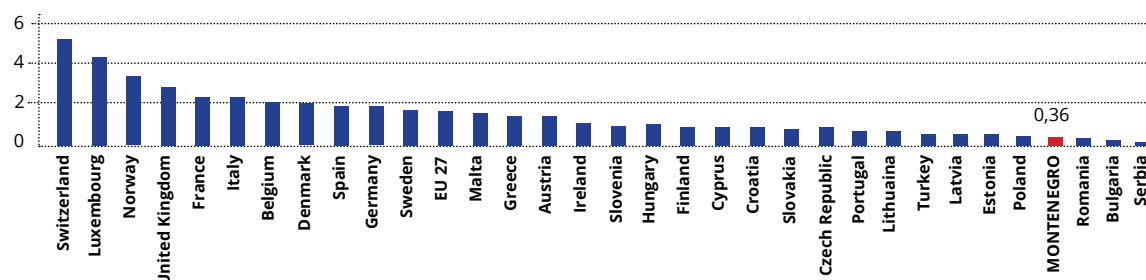
of domestic metal extraction does not remain within the national economy, but is exported and represents the material outflow. Consumption of non-metallic minerals (industrial and construction) in the period 2005-2012 decreased for 1,5 times, and the domestic biomass consumption in the period 2005-2012 increased for almost 9 times. Resource Productivity (RE) in 2012 was 1.151 EUR/t, which represents an increase of 50% in respect to 2005 when this indicator was 767 EUR/t. However, this impressive growth of resource productivity is a result of significantly slower growth (of 15%) of domestic material consumption (DMC) in respect to the growth of GDP (of 73,5%). Movements of these indicators can be found in the Chart 7-5.

Resource Productivity per country for 2011 is shown in Chart 7-6. This indicator varies from country to country, and the differences are caused by numerous factors, such as, in-

ter alia, economy structure, volume and way of consumption, main sources of energy, level of construction activities and similar.

Analyzing five possible scenarios of resource productivity movements (from business as usual scenario to the reduction of resources use of 50% by 2050) is concluded in **absolute reduction of resources use for 20% by 2020** in respect to the average in the period 2005-2012 (scenario 4), and now represents the best framework for policy making and creation to improve productivity, as well as resources management. Natural materials consumption reduction¹ of 20% by 2020 which is recommended in the National Hu-

¹ Material consumption is defined as the amount of materials directly used by domestic or export sectors and final consumers, which in accordance with the adopted methodology include biomass, fossil fuels, metals and minerals, except the air and the water.

Chart 7-6: Resource productivity by country for 2011, Source: EUROSTAT

man Development Report in Montenegro (UNDP, 2014) assessed as acceptable by the Government of Montenegro with the obligation of its additional validation and transposition into sectoral policies before its inclusion into national sustainable development policies by 2030. To implement this goal into sectoral policies and measures, it was necessary to determine at the sectoral level main indicators of the resources efficiency. The base for these calculations was data provided by MONSTAT on the consumption of four main categories of materials (biomass, fossil fuels, metals and minerals) for the period 2006–2013.² According to this data, in the structure of domestic material consumption the greatest participation has non-metals (60%) and fossil fuels (24%). Also, during the monitoring period, there has been an

improvement of resources productivity (for 0,1 percentage points) and reduction of material intensity (for 1,1 percentage points).³

² Statistical Office of Montenegro, MONSTAT, Material Flows Indicators in Montenegro 2006–2013, Podgorica 2014.

³ Resources productivity in a sector is calculated as ratio of gross added value and domestic material consumption of the sector. Material intensity is reciprocal to the resources productivity and is calculated as ratio of material inputs and economic outputs.

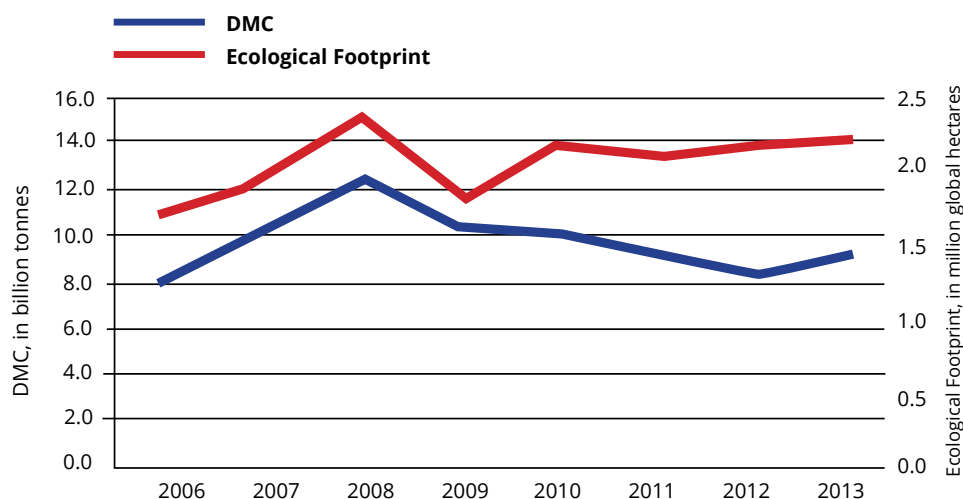
As indicators that refer to overall national economy, domestic consumption of materials and resource productivity are calculated for the key economic sectors based on their estimated consumption of certain domestic material categories. The calculation was done by the Institute for Strategic Studies and Prognoses with the support of the UNDP, for the purposes of the NSSD drafting. As stated in the assessment, the civil engineering sector makes up the largest portion of the total materials consumption of 55%. After the sector of civil engineering, come the sector of energy (22%) and the sector of processing industry (10%). According to these assessments, the sectors of agriculture and service tourism have slight participation in the total DMC. The Analysis has shown that the civil engineering industry is materially most intense, and uses 71 tons of domestic materials for the consumption, 1EUR of gross added value. Also, this is the only sector, together with transport, where the material intensity has grown to 43% in the period 2006–2013. High rates of material intensity can be also found in the sector of processing industry and energy, but these two are the sectors where this indicator has significantly declined for the stated period. The greatest resource productivity is in agriculture and fishery (1.89 EUR/t), followed by transport. Resource productivity has improved in the sectors of agriculture, services and energy, while in the sectors of civil engineering and transport the productivity has improved.

Such calculated indicators enabled **the assessment of economic growth separation from negative environmental impacts (decoupling) by sector**. During the reporting period (2006–2013) gross added value for the service sector (wholesale and retail, ho-

tels and restaurants) has recorded growth rate of 17,6%, with slower growth of domestic material consumption (mostly biomass) for 3,2%. In the sector of processing industry has also come to relative separation, but in opposite direction in respect to the service sector – growth rate of gross added value and DMC has been negative. Gross added value of the processing industry has declined to 17,7%, while DMC has reduced to 61,3%. Gross added value for the sector of transport has been declining faster than domestic material consumption – DMC has declined to 16,2%, while gross added value has declined to 56,5%. There has not been separation in the civil engineering sector, since the growth rate of gross added value has been equal to DMC growth rate. The growth rate of the both indicators has been about 29%.

Index decomposition of the Analysis has been implemented to determine causes and effects of changes in DMC chain. In the period 2001–2013 Montenegro's GDP has grown at an average rate of 2,5% and that has influenced the growth of "ecological" consumption in all sectors. Structural changes or changes in economic structure had a neutralizing effect – significant reduction of primarily and secondary sector participation in the total production and the growth of the service sector. On the other hand, changes in technology and production processes were not sufficiently strong and represented in order to neutralize the negative impact on the economic activities, and that caused net increase of overall emissions, as well as material and energetic intensity in most of the sectors.

Allocation of overall domestic material consumption reduction to 20% at the sectoral level is based on sectors percentage share

Chart 7-7: DMC Trends of Montenegro vs. Ecological Footprint, 2006-2013.¹³

in the overall consumption of natural materials, sectors participation in the total GDP and contribution for the improvement of sectors resource productivity. On the basis of this data, as well as the projections of DMC movements per sector by 2020, recommendations aimed at reducing DMC and increasing RP were given, or increase of resource efficiency in the key sectors by 2020. The recommendations, according to which the civil engineering sector, energy and agriculture sector can make the greatest contribution in order to improve efficiency and use of domestic materials in Montenegro, were given in the Chapter 4 of this Strategy in the part related to the economic resources. Due to the fact that there are planned large investment projects in these sectors in the upcoming period, this especially emphasizes the importance of careful creation and implementation of sectoral policies and measures. It is very important to take into

account all available instruments in order to achieve set goals, such as economic, promotional and instruments based on research as well as the cooperation with large companies.

Relation of the Ecological Footprint and DMC of Montenegro is given in the Chart 7-7. Similarly to the Ecological Footprint, the Domestic Material Consumption (DMC) – through the aggregation of a large set of products (biomass, metal and minerals, non-metals and fossil fuels) – provides a macro-view of the country's patterns of resource consumption and their environmental sustainability. The differences between DMC and the Ecological Footprint are primarily related of the coverage of the resources since the Ecological Footprint includes wider spectrum of products and services, including non-renewable resources.

There are also differences in respect to the context of the analyses – while the Ecological Footprint determines the pressure on the ecosystems due to the use of renewable resources and services of ecosystems, the focus in DMC analysis are total quantities of expended resources grouped by (mass) weight. The differences are also in the coverage of supply chain opposite to the Ecological Footprint, because DMC measures only products that are spent in a particular country but does not take into account “upstream” – indirect influences of imported products, or materials that are needed during the whole supply chain in order to produce a given product¹.

Result of DMC Analysis and calculation of the Ecological Footprint for Montenegro, have some common characteristics, but are also different in key aspects. Both analyses showed fast growth of values between 2006 and 2008, followed by a period characterized by a decline, probably influenced by the global economic crisis. After 2008, DMC per capita declined until 2012 and experienced a slight rebound in 2013, ending far below the maximum value reached in 2008. Generally considered, DMC per capita showed a slight increase (+7%) between 2006 and 2013. On the contrary, the Ecological Footprint per

capita in Montenegro declined between 2008 and 2009 before its growth and retention at the level slightly below the maximum from 2008 until 2013. In the overall statement, the Ecological Footprint per capita showed significant growth (+32%) between 2006 and 2013.

Different DMC² and Ecological Footprint trends in the period after 2008 are probably the result, among other things, of: a) different set of products that are measured by these two indicators (decline of DMC is mostly a result of reduced use of non-metal minerals, which are not tracked in the analysis of the Ecological Footprint), and b) different coverage of various steps of the supply chain with resources that are tracked by these two indicators. Since Montenegro increased its dependence on imported resources from other countries, due to the use of these resources the Ecological Footprint is increasingly relocated to other countries (this phenomenon is visible through the Ecological Footprint and not through DMC). Combined use of DMC and the Ecological Footprint gives an understanding of the wider resource metabolism of Montenegro, where to significantly contribute non-renewable resources, such as metals and minerals, as well as non-metal minerals. This means that overall ecological deficit of the country is probably higher than the one that is got from the calculation of the Ecological Footprint, and the ecological pressures are higher than those followed by the Ecological Footprint, and are caused by production and consumption activities in Montenegro.

1 Global Footprint Network, 2015, Ecological Footprint Study of Montenegro. The Report was prepared by the Ecological Footprint Network for the Ministry of Sustainable Development and Tourism of Montenegro; additional details on comparison between Domestic Material Consumption and Ecological Footprint can be found on <http://www.theguardian.com/commentis-free/2015/nov/24/consume-conserve-economic-growth-sustainability> for additional discussion about the impossibility of Domestic Material Consumption to follow up the complete use of the materials.

2 Statistical Office, MONSTAT, Material flow accounts and DMC indicators in Montenegro 2006 – 2013. Podgorica, 2014.

7.1.4.5. Land Consumption – urban expansion and build-up space indicator

In the evaluation of results achieved by the implementation of planning documents it is not simple to separate the direct result of the plan implementation and planning solutions from the results of parallel implementation of other systemic measures in the system of spatial planning. Therefore, in order to simplify the process of monitoring and evaluation of planning documents the implementation of indicators is necessary. It is about the instruments which contribute to the efficiency of implementation of planning document due to the fact that they facilitate 1) clear, measurable and comparable description of state, and 2) the plan implementation and results achieved monitoring through progress measures in attaining defined goals.

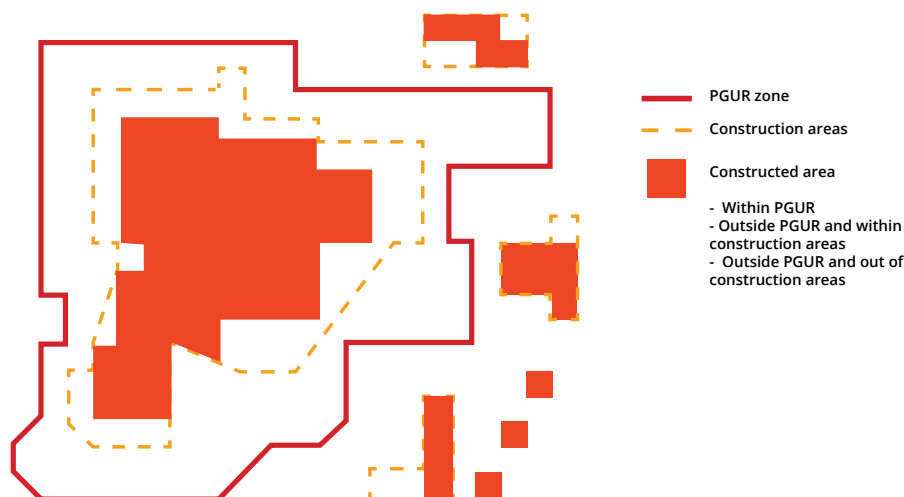
Indicators are used in all phases of the planning process. During the analytical phase they are important since they enable the objectification of spatial state image. Further, they are used in defining strategic planning documents goals. Certain indicators are indispensable mean for monitoring and evaluation of progress in plans and other public policies implementation. Also monitoring of the state in space which includes preparation and keeping of documentation basis about the space, drafting of reports on spatial planning, drafting and adoption of spatial planning programs as well as formation and conduct of information system, is unthinkable without use of indicators system.³

However, indicators for state and changes in space monitoring, as well as for implementation of plan and relevant legal provisions monitoring have not been yet sufficiently implemented.

Sustainability of spatial development can be monitored and analyzed through the establishment of indicators that should illustrate quality and the quantity of spatial changes. Numerous are indicators that can be used for “measuring” of urban growth and, more importantly, the quality of urban growth. For the needs of the Analyses on Construction areas development in Montenegro which is prepared for the purpose of the 2030 NSSD drafting, indicators for twenty Montenegrin municipalities and the Capital are developed. The Indicators include the following information: **1) area of each spatial unit – Municipalities, the Capital (ha), 2) population, 3) population density and 4) based on 2011 orthophoto map, constructed spaces have been recognized and their areas have been identified for all spatial units as so called constructed areas (ha).** By means of valid planning documentation, graphic annexes and the Rulebook on detailed content and form of a planning document, land use criteria, urban elements regulation and the standardize graphical symbols, purposes that include construction have been defined and thus it came to parameters of **planned construction (ha)**. Therefore, construction map means a kind of map derivate for land uses from the valid planning documentation. Combining previously established parameters, it came to **indicators of existing construction, indicators of planned construction, indicators of construction area use, indicators of construction area density, construction area consumption per capita, as well as spatial reserves within construc-**

³ Ministry of Sustainable Development and Tourism, National Strategy of Integral Coastal Zone Management, NS ICZM, Government of Montenegro, june 2015..

Figure 7-1: *Diagram of the construction area*



Previously stated data are processed at the level of PGUR (Plan for General Urban Regulation within SUDP (Spatial Urban Development Plan) or for the level of GUP (General Urban Plan), as well as for the zones that are not included in PGUR/GUP and represent areas outside urban centers (Figure 7-1). Such itemized parameters enable a good overview of the field state, and relatively precise indications on deviations from desired models of sustainable spatial development. Also, comparison of construction indicator for PGUR zones (urban centers) and out of PGUR (rural areas) indicates the need for amendment of conclusions obtained by numerical indicators, adequate quality analysis of construction areas shape and typology, especially when it comes to rural areas.

The Analysis on Construction areas development is an integral part of the 2030 NSSD, and with regard to its findings, in Chapter

2 is given the state of space assessment as a non-renewable resource of Montenegro, problems that characterize such determined state are defined in Chapter 3, while the NSSD until 2030 responses to the problems are given through definition of strategic goals in Chapter 4, i.e. measures and sub-measures in the Action Plan of this Strategy. This Chapter provides an overview of three indicators of land consumption which give cumulative state of space attained by calculation of said group of indicators. (Table 7-32).

Besides that, the coastal zone area, as an area particularly exposed to the pressure of intense urbanization, has been thoroughly analyzed and assessed in the spatial analysis implemented within the realization of the Coastal Area Management Programme (CAMP MNE) for the needs of the National Strategy for Integrated Coastal Zone Management and the new Special Purpose Spatial Plan for the Coastal Zone of Montenegro drafting.

Table 7-32: Indicators for land consumption

MUNICIPALITY	LAND CONSUMPTION INDICATOR					
	Construction area indicator (%)	Planned construction area indicator (%)	Extent to which the construction area is used/ built up PGUR (%)	Extent to which the construction area is used/built up PGUR (%)	Target value in 2020	
Cetinje	1.1	3.3	61.1	17.4	Tbd	
Andrijevica	1.4	8.6	44.1	11.0	Tbd	
Berane	2.1	5.9	51.4	25.9	Tbd	
Bijelo Polje	2.7	2.9	62.1	25.6	Tbd	
Danilovgrad	3.7	7.8	58.6	20.6	Tbd	
Žabljak	1.7	2.0	35.2	78.7	Tbd	
Kolašin	1.6	1.9	49.8	69.4	Tbd	
Mojkovac	2.3	3.4	41.2	67.2	Tbd	
Nikšić	2.0	5.2	52.7	13.2	Tbd	
Plav	1.6	3.5	35.7	45.4	Tbd	
Plužine	0.6	2.8	43.3	13.2	Tbd	
Pljevlja	1.7	1.7	38.3	70.1	Tbd	
Rožaje	1.9	9.2	33	12.5	Tbd	
Šavnik	0.4	3.3	66.7	11.20	Tbd	
Coastal municipalities			Obstruction surface in Costal Zone Municipalities within SPSPCZ MNE drafting			
			Existing state (2013)		Planned state (SPSPCZ , May 2015)	
			Construction area/ municipality area (%)	Constructionarea/ municipality area (%)	Indicator of planned construction (%), or the extent to which the construction area is used or built-up – share (%) of built-up areas surface in constructed areas surface	Target value in 2020
Bar	3,1	8,6	8,6	8,9	36,5	tbd
Budva	4,8	21,5	21,5	21,9	22,4	tbd
Herceg Novi	3,7	30	30	9,9	12,2	tbd
Kotor	1,9	7,9	7,9	7,1	23,4	tbd
Tivat	11,3	28,2	28,2	23,2	40	tbd
Ulcinj	2,7	20,7	20,7	10,0	13	tbd
Total on regional level	n/a	n/a	15,5	10,3	30,0	50%

In Table 7-33 is an Overview of 8 indicators relevant for the evaluation of state of the coastal zone is given. These indicators are taken from the National Strategy for Integrated Coastal Zone Management which is an integral part of sustainable development policy, i.e. the 2030 NSSD. A number of indicators supervene from defining areas uses of the SPSPCZ MNE, therefore their final statement will be confirmed after the adoption of the SPSPCZ MNE.

This group of indicators is grouped according to the key planning goals of coastal zone spatial development, including value review for baseline state and approximate values for baseline planning state (SPSPCZ MNE) and target state according to the 2030 SPSPCZ MNE:

- Indicators 1, 2, 3 are quantitative indicators with a three-fold role – analytic (have a function of analytical baseline indicators), planning baseline (describe planning solution or the level of performed corrections in relation to baseline) and planning target (describe planned target state in 2030).

- Indicators 4 and 6 are a combination of quantitative and qualitative indicators since it is not possible to determine the status of new construction area separate from existing construction areas detached from the existing construction areas by using GIS analyses solely. It is understood that the alignment of construction areas and eliminated conflicting land uses in baseline planning state will remain at the level of the SPSPCZ MNE Pre-draft from August 2014. Unlike indicators 1, 2 and 3 which measure the total surface area, this group of indicators tracks changes in the number of construction

areas. As a rule, opening of new construction areas is less spatially sustainable and exerts a greater pressure on environmental segments than does the expansion of existing construction areas by for the same surface. Indicator 6 the number of new construction areas in the areas of high vulnerability.

- Indicator 5 measures the extend to which land use is optimised through the SPSPCZ MNE in the sense of decreasing conflicts between construction and high vulnerability areas.

- Indicator 7 measures baseline state of the extent to which the coastal line is built-up, i.e. it will measure state of development of coastal line during the SPSPCZ MNE implementation. This indicator does not contain planning target value.

- Indicator 8 measures share of cost to which setback is applied without adaptations as defined under the Article 8 of the ICZM Protocol. This indicator does not contain planning target value.

- Indicator 9 measures compliance with the zone of extended setback in implementing the SPSPCZ MNE.

As can be seen from the baseline state column in Table 7-33, all proposed indicators are calculated from several input data which makes them relatively economical, particularly with a view to their multiple role (analytical, baseline planning and planning target indicators). The main two layers of spatial data serving as input data are: construction area borders (the layer is updated by transferring data from the planning documents that define construction areas) extent to which the space is built-up

(the layer is updated by vectorising ortho-photo images). Furthermore, all proposed indicators can also be expressed at the level of different municipalities.

Table 7 – 33: *Indicators by groups of the key planning targets of the coastal zone development with baseline values, framework baseline planning state values (SPSPCZ MNE), and target state according to the SPSPCZ MNE in 2030*

COASTAL ZONE INDICATORS				
SPSPCZ PLANNING GOALS	KEY INDICATORS	BASELINE	SPSPCZ 2015	SPSPCZ 2030
Regulating excessive consumption of space	1. share of construction areas in the total surface of coastal municipalities	15.5% (synthesis map of construction areas according to the state of valid planning documents from 2013)	9%	10%
	2. share of construction areas in the 1 km wide belt from the coastal line	46.3% (synthesis map of construction areas according to the state of valid planning documents from 2013)	35%	35%
	3. the extent to which the construction areas are used or built-up	18.5% (synthesis map of construction areas map, use according to ortophoto image from 2011)	30%	50%
	4. number of new construction areas detached from the existing ones as defined through the SPSPCZ and its implementation	synthesis map of construction areas according to the state of valid planning documents from 2013	according to land use plan	according to future changes of the SPSPCZ and SUPs

Land use optimisation through minimisation of conflicts between uses and vulnerability of space	5. surface of conflict areas comprising non-developed construction areas in the zones of high vulnerability	In total 6,247 ha in 36 zones with a surface of more than 50 ha (overlapping of the map of non-developed construction areas according to the state valid planning documents from 2013 and of the vulnerability map)		
	6. number of new construction areas (detached from the existing ones, as defined through the SPSPCZ and its implementation) in the zones with high vulnerability	(synthesis map of construction areas according to the state of valid planning documents from 2013 and vulnerability map)	according to land use plan	according to future changes of the SPSPCZ and SUPs
Regulation of construction in the narrow coastal strip – coastal setback	7. the extent to which the coastal line is built-up	31.9% (construction by ortophoto image from 2011)	the same	-
	8. share of the coast line where setback is applied without adaptation is defined by the SPSPCZ	-	26%	-
	9. the extent to which the zone with extended setback is built-up	(construction by ortophoto image from 2011)	the same	

7.2. Integrated system for monitoring of the NSSD sustainable trends

Overall, the analysis of the UN list sustainable development indicators, national indicators, international indicators and composite indicators resulted in the establishment of an integrated system for monitoring of the sustainable development trends of Montenegro presented in Table 7-34. This system enables:

- Adequate transposition of sustainable development indicators into the national context, which further enables adequate transposition of the UN 2030 Sustainable Development Agenda goals and tasks into the national development plans, strategies and policies.
- Priority themes for Montenegro, not covered by the UN indicators, to be monitored within the NSSD implementation by applying relevant national and international indicators.
- Monitoring of general progress achieved by Montenegro within the NSSD priority themes by implementation of composite indicators which connect, on the one hand scientific needs for systemic and inter-sectoral approach to evaluate sustainability, and on the other hand enables practical local monitoring which is necessary to implement particular policies and activities.

Table 7 – 34: Integrated system for monitoring of the NSSD sustainable trends

	Human resources	Social resources	Natural resources	Economic resources	Governance for sustainable development	Financing for sustainable development
The UN list sustainable development indicators	43 indicators related to this thematic area 11 indicators (25.6%) recognized by name and content 7 indicators (16.3%) recognized by content (fully or partially) and can serve as an alternative 14 indicators (32.6%) which introduction is planned by 2018 Total = 73.8%	60 indicators related to this thematic area 8 indicators (13.3%) recognized by name and content 7 indicators (11.7%) recognized by content (fully or partially) and can serve as an alternative 9 indicators (15%) which introduction is planned by 2018 Total = 40%	29 indicators related to this thematic area 0 indicators (0%) recognized by name and content 4 indicators (13.8%) recognized by content (fully or partially) and can serve as an alternative 7 indicators (24.1%) which introduction is planned by 2018 Total = 38%	35 indicators related to this thematic area 9 indicators (25.7%) recognized by name and content 9 indicators (25.7%) recognized by content (fully or partially) and can serve as an alternative 6 indicators (17.1%) which introduction is planned by 2018 Total = 68.6%	43 indicators related to this thematic area 15 indicators (34.9%) recognized by name and content 0 indicators (0%) recognized by content (fully or partially) and can serve as an alternative 12 indicators (27.9%) which introduction is planned by 2018 Total = 62.8%	31 indicators related to this thematic area 6 indicator (19.3%) recognized by name and content 7 indicators (22.6%) recognized by content (fully or partially) and can serve as an alternative 6 indicator (19.4%) which introduction is planned by 2018 Total = 60%
National indicators	58 indicators	65 indicators	52 indicators	68 indicators	9 indicators	No
International indicators	2 indicators	7 indicators	8 indicators	3 indicators	7 indicators	4 indicators
Composite indicators	Human Development Index	Gender Inequality Index Social Progress Index	Ecological FootprintEcological Footprint Domestic Material Consumption Land consumption	Resource Productivity Genuine Progress Indicator	Environmental Democracy Index Environmental Performance Index	No

7.3. Information system, monitoring and reporting on the NSSD implementation

The key phase for success of the NSSD until 2030 implementation, and therefore for achieving sustainable development of Montenegro, is monitoring and reporting on the results of its implementation. Exactly for this phase main shortcomings in the implementation of the previous NSSD from 2007 are related. The same problem characterizes reporting processes on implementation of other national strategic documents, therefore it can be concluded that this is a systemic problem. However, this problem must be overcome when it comes to reporting on the 2030 NSSD implementation; without the establishment of an adequate information system, addressing this problem will not be possible. The information system will represent a junction for data processing in the context of the 2030 Agenda for sustainable development implementation towards the UN Economic and Social Council (ECOSOC).

Process of implementation and evaluation consists of few phases, and each of them is very important so the process itself represents a functional whole. It necessitates setting up this process to have precise defined obligations and responsibilities of all subjects involved in the NSSD implementation, with precisely defined procedures and process format and data exchange due to preparation of report of the NSSD i.e. the UN Agenda for Sustainable Development implementation by 2030. Also, it is necessary to avoid bad experiences when it comes to non understanding of obligations

and tasks from subjects responsible for the NSSD implementation. During drafting of the first pilot report on the NSSD until 2030 implementation in 2019, shall be revealed to what extent the progress will be achieved in introducing integrated system for monitoring of sustainable development trends in Montenegro, due to the fact that 56,8% of sustainable development indicators should be introduced in the system of statistical monitoring by 2018.

Phases in the process of the NSSD until 2030 monitoring and implementation are: 1) data collecting, 2) reporting, 3) analysis of data obtained, 4) recommendation for improving the document and 5) NSSD until 2030 periodic audit. The first three phases will be supported by a functional information system which description follows.

Starting from the dynamics of evaluation process of the NSSD until 2030 implementation shown in Table 7-35, in the initial phase of the implementation it is necessary to prepare a detailed program of activities and patterns for making reports in order to facilitate and make efficient overall process of monitoring and reporting by 2030 applying methodological harmonization of certain phases. For each phase the program of activities should define precise guidelines on: methodology that is applied, form and content of reports, tasks of subjects responsible, etc. This facilitates the analysis of separately collected inputs and enables comparability of data obtained, improves efficiency of work processes and produces quality data that enables informed and reasoned decision-making important for sustainable development policy improvement. All data collected in each phase should be available to the public.

Table 7-35: Dynamics of evaluation process of the NSSD implementation by 2030

Phases	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Data collecting and processing	X	X	x	x	x	x	x	x	x	x	x	x	x	X	x
NSSD indicators introduction	x	X	x	x	x	x	x	x	x	x					
Introduced indicators for NSSD implementation (official and administrative statistics producers)			x 56,8%		x 70,1%		x 80,1%		x 91,32%						
Preparation of progress reports			x	x	x	x	x	x	x	x	x	x	x	X	
Publishing of progress reports				x		x		x		x		x		X	
Analysis of data and reports on progress obtained				x	x	x	x	x	x	x	x	x	x	X	x
Development of recommendations for improving NSSD					x		x		x		x		x	X	x
Audit of AP NSOR					x					x					x
Audit NSOR															x

The establishment of a functional information system and database represents the basis for successful measurement of progress in the 2030 NSSD implementation. During the design and construction, it is necessary to enable this system to be user friendly and to facilitate the entering, viewing and analyzing of data, and not to become a burden and bottle-neck of the NSSD until 2030 implementation monitoring system. The established system should be simple, efficient and friendly. It should be oriented toward users since its primary purpose is to facilitate implementation monitoring in order to have quality implementation of the NSSD until 2030, and not to represent too massive and inefficient system that in practice will not work.

Such an organized, functional information system should enable not only simultaneous data collection by subjects responsible for monitoring of certain sustainable development indicators, or the NSSD measures, but also the archiving and further processing towards efficient national and international reporting.

There are more possibilities to organize and develop an information system. One of them is to use the existing online reporting system named IRIS (Indicator Reporting Information System). This system is co-developed by UNEP and AGEDI (Abu Dhabi Global Environmental Data Initiative) and enables data share among different subjects having authorizations. In this case, the subjects could be Montenegrin institutions, official and administrative producers of statistics, who through this system can simultaneously collect, analyze and publish quality assured information.

Once implemented in the country, the IRIS can be connected to the recently developed

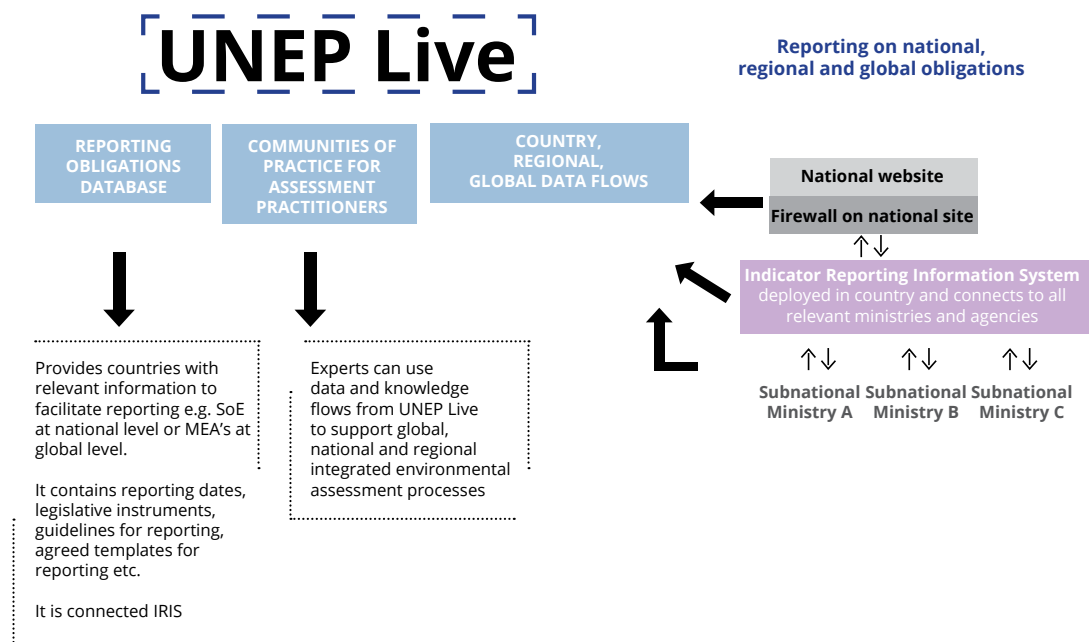
UNEP Live Platform, which supports dynamic, interactive assessments and reporting processes by UN member states through a range of analytical, mapping, and visualization tools. The possibility of exchanging data and readiness of the UNEP to provide Montenegro with free IRIS, represent significant advantages that recommend the NSSD until 2030 implementation online system.

After installation, IRIS completely belongs to and is controlled by Montenegro. It should be managed by the Ministry of Sustainable Development and Tourism, i.e. a unit that will be in charge of the 2030 NSSD implementation, with its unique information system managed by the Ministry for Information Society and Telecommunications. All subjects responsible for the NSSD until 2030 implementation will have access to the established information system. The functioning of IRIS is described below, and in Graph 7-8.

Through the IRIS system, the NSSD monitoring by 2030 will function as follows:

- In collaboration with competent departments, the IRIS structure will be customized by UNEP in a way that it is consistent with the structure of the integrated NSSD until 2030 monitoring.
- Access and log-in credentials should be given to all subjects responsible for relevant reporting and administrative and official statistics production for the NSSD until 2030.
- Each subject responsible will upload in the IRIS system the NSSD relevant data it is in charge of by means of an Application Programming Interface (API). Official and administrative pro

Graphic 7-8: Schematic view of IRIS
functioning



ducers of statistics will upload data in different ways in accordance with their responsibilities as defined in point 7.1.1.

- Irrespective of the status (official or administrative producer of statistics), entering data in the system will require to also enter: i) info on indicators' metadata, ii) formula, iii) and associated SDGs.
- Once uploaded, data and indicators are reviewed by relevant institutional representatives who have to prepare appropriate analytical report, which will serve as input for the NSSD until 2030 implementation by the Ministry of Sustainable Development and Tourism.
- After the implementation of all the

above mentioned steps, data would be published. Published data can be charted and maps can be created to ease national and international reporting.

- Published indicators can be used to report to various institutions, national and international. The institution in charge of the NSSD implementation reporting at the national level shall be the Ministry of Sustainable Development and Tourism, that includes reporting on the Agenda for Sustainable Development implementation towards the UN Economic and Social Council. If the UN Statistical Commission establishes separate ways of reporting about sustainable development indicators for responsible official producers of statistics, this obligation will be relevant

for eight official producers of statistics, where the coordination role belongs to the Statistical Office as the key institution for international statistical cooperation (Article 62 of the Law on official statistics and system official statistics). This database can serve for reporting towards other numerous UN bodies and international organization, and officially called institutions shall be in charge of the reporting.

- Prior to national and international reporting on the NSSD i.e. the Agenda for Sustainable Development implementation, draft reports shall undergo a consultation process with interested public.

Prior to IRIS introduction, it is necessary to run its pilot testing in collaboration with UNEP. During testing, the IRIS software will be located on the UNEP server, with enabled access from Montenegrin territory. Upon successful completion of pilot testing, the UNEP team, the Ministry of Sustainable Development, and the Ministry of Information Society and Telecommunications shall collaborate to ensure proper transfer of technology (the dynamics depend on the technical setup in the Ministries) and to install the IRIS software in the country. Afterwards a Memorandum of Understanding should be signed between UNEP and the Government of Montenegro, and the software shall be permanently moved to a national server so that it can function as the national sustainable development indicator reporting system. At this point, UNEP shall no longer have control of the IRIS software which will be used in Montenegro.

Although IRIS is identified as the most appropriate option, since it is a platform al-

ready available for use, it is possible that in the future an opportunity may arise for further improvement of information system for monitoring of the NSSD until 2030 implementation.

Analysis and development of recommendations for improvement of the NSSD until 2030 implementation on the basis of prepared reports on progress is the next crucial step in the NSSD until 2030 implementation. In fact, precisely at this stage conclusions on process and results achieving in the strategy implementation are being brought. Therefore it is very important that the analysis is not based only on necessary comparison of achieved measurements of indicators. In order to have time and adequate corrective reaction on the NSSD until 2030 implementation process, the analysis must be well prepared in order to show that good results can be additionally improved and that, at the same time, the key reasons for bad results can be recognized. In addition to the degree of fulfillment of the set goals, it is necessary to observe the effects of inclusion of subjects having obligations in the NSSD until 2030 implementation, but also reactions of all interested parties and the public. All those strategies and observations should be recorded and used as guidelines for further improvement of the document and overall process of its implementation by 2030. The established online system should strengthen implementation of accountability mechanisms and enable smooth participation of citizens and all interested parties in monitoring of the NSSD until 2030 implementation, and the shaping of the process itself.

8





Annexes

8.1. Annex I – Overview of problems and causes

Table P I-1: *Brief overview of problems and causes in the filed of economic sustainability*

Problems	Direct causes
- Economic activities have not yet adjusted to the sustainable development requirements, i.e. principles (agriculture, tourism, spatial planning, civil engineering, forestry, hunting, energy, exploitation of mineral raw materials, maritime economy and transport). - Relatively high level of domestic material consumption (DMC) and low level of resource productivity (RP)	Lack of effective support for diversification of the economy, particularly through the development of rural areas and implementation of clean and efficient technologies for the production, significant for the development of green and blue economic activities. - Green economy is represented in defining strategic directions and vision of the sustainable development, but fails their full integration and measures to allow this and other similar concepts really come to life in practice. - Lack of skilled staff in charged for harmonization of legislation that regulates this filed.
- Existing regulations that regulate economic activities in above mentioned sectors are insufficient from the aspect of defining measures for environmental protection, including reduction of pollution and reduction of damages caused by natural and anthropogenic hazards. - Mostly linger on recognizing the sensitivity of the environment based on principles and requirements without development of instruments for the ecosystem sensitivity evaluation, as well as provision of instruments for prevention and/or elimination of pollution.	- Non-compliance of existing regulations with EU directives and international agreements in this field. - Inadequate use of analyses and reports of international institutions which provide guidelines for regulation of open issues. - Failure to recognize the need for a clear standardization of payment issues of fees for environmental pollution damage caused by pollutants - Underdeveloped capacities for managing sustainable development policy in certain sectors.
- Large foreign-trade deficit and high dependence on imports.	- The economy relies on demand growth, low productivity and export which is concentrated on a few products of the metal industry of low added value and low technological sophistication. Low export base, poor differentiation of products and the high dependence on imports.

- Lack of competitiveness of agriculture, low productivity and inefficient use of natural resources	- Limited volume of domestic production and fragmentation - small uneconomic plots - Outdated mechanization and lack of equipment - Standalone performance and weak interest of farmers associations - Difficulties in delivering consistent quality and quantity by small producers - Limited implementation of programs for quality and safety of food production and distribution. - Very expressed conversion of agricultural into urban - construction areas, due to the possibilities of faster earnings through tourism and the real estate sectors, as long as there are not penalty provisions, thereof this leads to degradation of valuable agricultural land. - Very unfavorable living conditions in countryside, underdeveloped infrastructure, limited healthcare and educational services, which leads to the fact that young people are moving out and therefore the age structure is very unfavorable.
- Unfavorable diversification of the tourist product - Non-implementation of green (non-environmental) innovations and technologies in the sector of tourism	- Tourism in Montenegro is dominantly concentrated in the coastal area, and in doing so has a seasonal character. - Inadequate private accommodation infrastructure, i.e. very few hotels of 4 and 5 stars, while there is a large share of unregistered accommodation. - Also, very poor connections between tourism and agriculture (lack of clusters and cooperatives), then transport and water management. - The lack of diversified offer (other types of tourism (except bathing), for example, tourism based on the preservation of nature and landscapes, tourism based on the preservation of cultural heritage and traditions, ecotourism, etc.) - The biggest causes of non-presence of green innovations and technologies in the sector of tourism are followed by bad price signals and absence of economic and market instruments, which could reduce costs incurred due to negative environmental externalities.

- Insufficient use of renewable energy sources - Low energy efficiency	- Although there is a program that encourages the use of renewable energy sources (feed-in tariff), commercial banks offer favorable loans for the introduction of energy efficiency measures; process of issuing permits for the construction of a plant is a long-term and complicated process. - The population is insufficiently informed about the benefits of using renewable energy sources, while the labor force in this area is poorly trained. - Non-existence of measures aimed at resource efficiency such as: elimination of subsidies for fossil fuels use and/or introduction of environmental taxes contributing to reduction in use of fossil fuels and greater use of energy efficiency measures, then appropriate tariff policy (customs exemptions or lower tariff rates) could enhance the import of clean technologies, plants and equipment that use renewable energy sources.
- Dominant heavily industries	- Reliance on KAP which has survived thanks to the remarkable extent of subsidies and other forms of state aid, and despite the outdated technology, the remarkable inefficiency and energy intensity, a significant share of greenhouse gas emissions - The lack of incentives for the development of food and wood industry based on the principles of the green economy. Small number of companies engaged in this activity, which use technologies that are not in compliance with environmental standards.
- Low resource and energy efficiency in the sector of civil engineering - Violated quality of the constructed areas, which is reflected in the fragmented and dispersed construction	- Lack of sanctions/stimulus for (non)use of renewable energy sources and energy efficiency measures. - Spatial planning documentation in Montenegro is outdated or ignored, causing unplanned construction that does not provide quality equipment and development of settlements. - In addition, there is no regulatory framework for sustainable construction, and comes to the urbanization of areas of high biological or landscape values and the loss of agricultural and forest land

- Disposal of municipal, construction and industrial waste on illegal or not regulated dumpsites - Recycling and reuse of waste at the low level	- Lack of infrastructure and funds for the realization of investments - Significant quantities of waste disposed of in illegal dumpsites not subject to penalty policy. - Existing system does not involve organized selective collection and specific treatment of different types of waste. In addition, there are no reliable data on the quantities and types of waste that generates during technological processes
- The risk for forest fires is high	- Current openness of forests through the forest roads are at a low level - Structure – coppice forests which, due to the low coverage and large quantities of dry vegetable and wood biomass on the ground, are very flammable.
- Low competitiveness of seaports and increased environmental pollution	- In the maritime sector naval fleet is relatively outdated and its equipment is not in accordance with the environmental protection procedures. - Also, the treatment of waste and sewage in ports, marinas and other maritime infrastructure is not adequately treated. - Port of Bar, the most important transit center in Montenegro, is inadequately connected with the hinterland, which reduces its competitiveness.
- Illegal and unregistered fishing is evident as well as illegal entry of foreign fishing vessels, which leads to illegal overfishing. - A modest fish catch.	- Poor inspection control caused by a lack of inspection services capacity - Also there is relatively small and outdated fleet in fishery sector and mariculture, inexistent organized repurchase or fish processing, inexistent fishery port, as well as inexistent point of first landing and point of first sale. - Shellfish cultivation is not in accordance with the standards of environmental protection.
- During damage incurrence in the environment, the responsibility of the pollutant was based on the establishment of misdemeanor or criminal responsibility, while taking concrete measures with the aim to have damaged environment returned into its original state, respectively compensate for damaged natural resource was mainly inexistent. In 2015 the new Law on Reliability and Liability for Environmental Damages entered into force and its implementation should procure efficient remediation and rehabilitation of polluted localities.	- Lack of ecological fund. - Limitations in regulations implementation, which are reflected in the lack of skilled personnel and number of employees, especially in inspection services.

- Lack of respect and inadequate implementation of regulations and spatial planning documents.	
- Character of spatial planning is to a certain extent at declarative level, since the commitments and the established goals are not elaborated in normative and graphically clear and measurable, i.e. quantified provisions for planning solutions implementation.	- Spatial planning system is exposed to the pressures of constant land conversions, backed by expressed economic interests. - Dependence on foreign investment due to the recession. - Uncontrolled and dispersed expansion of construction areas at the local level for which it is not possible to finance the costs of communal equipping, in a situation of lack of other economic opportunities. - Lack of regulations that regulate this field (since 2011 Draft Law on the legalization is in the Parliament). - Lack of respect and inadequate implementation of regulations and planning documents - Lack of environmentally responsible approach in defining legal solutions, specifically in the Law on Spatial Development and Construction, which would enable effective protection of ecosystems, preservation of landscapes and cultural heritage, responsible consumption of resources and prevention and reduction of damages caused by hazards
- Degradation of space due to illegal construction is expressed, and measures to mitigate negative impacts of illegally constructed objects are not implemented.	
- Expressed need for regulating excessive space consumption, optimization of land consumption, regulation of construction in the narrow coastal zone, conservation and development of protected natural areas and open rural areas, as well as valuable natural areas.	
- Lack of mechanisms to encourage eco-innovation and eco-products.	- Lack of strategic approach by the Government of Montenegro in supporting eco-innovation and eco-production (insufficient allocations in the initial part of the financing of specific projects in the field of social responsibility through participation, etc.; greening of public procurements, introduction of standards for quality of products and environmental protection, introduction of ecological and social labels for productions and services).
- Underdeveloped market in terms of stimulating buyers for the selection of goods and services in supporting corporate social responsibility, and companies that implement the social responsibility principles.	- Insufficient awareness of citizens about the benefits of social responsibility, lack of stimulating measures for producers.

- Insufficient support for the development of small and medium-sized enterprises, both in terms of development potential for job creation and in terms of innovation (particularly female entrepreneurs).	- Lack of stimulative measures both by the state and by the investment institutions.
- Low rate of resource efficiency use in all aspects of the development.	- Lack of precise roadmap for increasing resource efficiency (by implementing the sustainable consumption and production concept, cleaner production, etc.).
- To some extent there is also insufficient quality of harmonization of public and private interests (either lack of instruments or their inefficient implementation).	- Lack of a legal framework in defining public-private partnership; insufficient implementation of practices of countries with good experience in this field.
- High level of unemployment followed by structural problems in the labor market such as: long-term unemployment, a large number of unemployed persons who are considered less employable, high youth unemployment, increase in number of unemployed university graduates, the seasonal nature of employment and a large representation of foreign labor force.	- Lack of funds for implementation of the Action Plan for the promotion of youth employment; inefficiency of activation policies – specially emphasizing the integration of long-term unemployed and youth unemployed within the labor market and, in this context, improving the quality of education, including strengthening the links between education and the labor market as lifelong career orientation.

Table P I-2: *Brief overview of problems and causes in the field of environment, natural resources, cultural heritage and hazards*

Problems	Direct causes
- Valid regulations regulating the activities of importance for sustainable development remain at the level of recognition of the environmental sensitivity in terms of preventive actions, no elaboration of assessment and prevention instruments i.e. pollution elimination.	- Undeveloped administrative and technical capacities for the implementation of environmental regulations.
- Unsatisfactory level of the new Law on Nature Protection implementation in the segment of appropriate assessment process implementation, undetermined borders of protected natural resources, non-performance and prior non-establishment of re-categorization of protected natural resources; mechanisms for proclamation and management of protected areas are not sufficiently recognized.	- Ignorance of specific impacts of particular interventions that have or may have a significant effect on the environment, while preparing the environmental strategic impact assessment (e.g. concession, exploitation of all types of architectural-construction stone, technical-construction stone, sea salt, pebbles and sand, sea fish and mariculture farms, certain activities in the sector of tourism having significant environmental impacts).
- Limitations in preparing the environmental impact strategic assessment.	- The methodology for drafting the strategic assessment is often very formal, without separating the spatial subunits in respect to the sensitivity of the planned interventions and without the use of quantitative indicators in the environmental impact assessment.
- Loss of habitats and valuable biodiversity on the land and at the sea. - Loss of characteristics for which areas were originally declared as the protected areas or planned to be protected, - Plans for the development of large capacities have been approved (tourist and others) at a number of locations with valuable biodiversity and specific habitats (Velika plaža, Buljarica, Luštica), - The goals set in strategic and spatial planning documents on protection of certain areas (terrestrial and marine) have not yet been achieved (Tivat saline is the only new declaration from 2007 and recent declaration of the regional nature park Piva – April, 2015).	- Land conversion and planning of construction areas which allows dispersed construction, - Urbanization; construction of tourism, catering and recreational facilities (including temporary objects); high demand for real estate, - Pressure on attractive locations due to the commercialization and aspirations for a quick profit; unadjusted construction, - Insufficient control (through the urbanistic - technical conditions and construction permits) of ambitions and preferences of investors, - Exploitation of mineral resources; improper disposal of waste - Inadequate control of pollution from marine and land activities.

- The existing network of protected natural areas is not representative (all valuable ecosystems, especially marine, are not included).	- There is no basis (clearly prescribed procedures, information on the status, borders, appointed managers, developed management plans) for the proper management of protected areas.
- Ecosystems protection measures outside protected areas are rarely planned and very rarely implemented. - Evident deterioration in the quality of natural and cultural landscapes that leads to decrease of the attractiveness of tourist destinations; expansion of settlements at the expense of green areas.	- Insufficient information on the values of services provided by ecosystems and non-integration of these values into development plans. - Promoting of policies and investment plans which are incompatible with the sustainable use of natural resources; incompatibility of sectoral policies and conflicts about the land consumption - Lack of integration of principles, goals and measures for the protection of biodiversity, cultural goods and landscapes in sectoral policies, national and local development plans
- Uncontrolled construction caused cutting of a significant number of torrential flows resulting in flooding of certain areas and reduction of accumulation of alluvium from water courses on the beaches. - Reduction of available beach surface areas	- Ecosystem approach in planning and management is not implemented, - Insufficient support to the development of green and blue economy, - No sufficient budgetary allocations for the protection of natural and cultural heritage, - Limited technical and administrative capacities, - Space conversion, determining construction areas in the zones of high seismic risk.
- Significant forest areas are threatened by forest fires.	- Inadequate fire protection system, non-implementation of preventive measures.
- Reduced natural ability for flood protection due to the degradation of ecosystems such as forests and wetlands.	- Insufficient information on the possible impacts of climate change, - Inadequate integration of available data on vulnerability to the impacts of climate change in spatial and development plans, - Insufficient funding for programs of research and monitoring of natural hazards, - Protection of agricultural land from erosion is not standardized.
- Adopted or are under consideration development plans for the sites where preliminary assessments indicated a high risk of flooding due to sea level rise.	- Incomplete and missing legal standards, - Unsatisfactory technical and administrative capacities.

Table P I-3: *Brief overview of problems and causes within social pillar*

Problems	Direct causes
- Montenegrin population aging and slower growth trend combined with internal and external migration significantly contributed to changing demographic picture	- Biological aspects affecting the decline in birth rate are primarily the negative health aspects of women's lives (diet, disease prevention, etc.). Also, it is evident decline in the number of children in urban areas because of the high threshold of social development, birth control, etc. - To this further contributed the new labor legislation that may adversely affect the employment of labor force due to possible maternity absences. There is no stimulation for birth, such as, for example tax exemptions or some form of subsidy. - Although Montenegro has positive and relatively stable attitudes about the importance of family, the fact is that a sense of life safety is significantly undermined, which may affect the willingness to take care of the brood - Material insecurity and better living conditions (better chances) in the cities of the central and coastal region significantly contributed to internal migration or displacement of northern region and population growth in the economically most developed cities of the central and coastal region
- Limited implementation of the Law on the restriction of tobacco products, to the extent that the use of tobacco products is prohibited.	- Unlawful implementation of the Law on excise taxes provisions, where smoking, in case when owner monthly pays tax of 1 € per m2 to the Taxes Administration, is allowed. Since entry into force of the Law on excise taxes (Jun 2012) inspection was suspended and it is necessary to continue with the Law implementation.
- High mortality rates from non-communicable diseases. Lack of preventive measures in combating non-communicable diseases.	- Lack of evidence; lack of a causal link between lifestyle and illness; lack of national program for prevention and control of cardiovascular disease, limited capacities and resources in the health sector.
- Lack in regulating the list of communicable diseases by by-laws, in order to ensure full implementation of the Law on Protection of Population from Infectious Diseases	- The lack of skilled personnel for regulations implementation, especially for implementation of national plans, guidelines and protocols, which should be developed in areas of: preparedness and planning of timely response; research of disease outbreak, risk assessment, risk management, emergency communications, etc.

- The health system does not fully meet the needs for development of human capital, i.e. correlation between the allocated funds and the health state of nation is poor.	- Lack of designed mechanisms allocation of resources aimed at reducing costs and savings, and strengthening linkages between hospitals and primary protection level in terms of care continuity, guidance, treatment standards and exchange of information - Lack of medical protocols as in the EU countries, which clearly separate responsibilities of primary and secondary/ tertiary level of treatment, provision of services and drugs
- Obsolescence of regulations in food quality sector, as well as lack of coverage of some parts of legislation (supplements); additional limitation is the obligation that an owner pays sample analysis only when the sample is incorrect, and not defined dynamics for food control in production and distribution of food facilities.	- Unclearly defined samples from service analysis payment method to laboratories for testing food safety, so that a larger number of samples can not be analyzed, and samples from facilities for transport of food analysis cost mostly remain unpaid.
- Non-implementation of water samples testing process at the appropriate scale. For example, drinking water testing in educational institutions is implemented in a very small scale, as these institutions avoid way of control provided by law.	- Lack of financial sources for implementation of laboratory analysis
- Low level of implementation of science policy in the field of sustainable development due to lack of appropriate analytical support in this area.	- Non-existence of studies on lacking areas of knowledge in the field of sustainable development
- In Montenegrin society is evident distinctly traditional division of roles between men and women. - Insufficient number of women in positions of responsibility (decision-making positions in the public and the business sector, the Government, Parliament, etc.). - The difference in earnings between men and women is still expressed. - Insufficient implementation of the Law on Gender Equality in practice	- There is no ultimate political commitment to empower women and achieve gender equality, and the resources allocated are symbolic. - Still insufficient personal sensibility and there is a reproduction of stereotypical gender regimes - Lack of provisions of binding character and insufficiently high penalty provisions
- Insufficient awareness on the value of cultural diversity	- Insufficient education in the field of knowledge of culture of minority communities, and insufficient availability of minority communities culture to the general public

- Low level of protection of cultural monuments, which led to damage and degradation of a significant number of monuments	- The lack of adequate database on all cultural heritage segments; lack of archaeological map and database of archaeological excavations; unrecorded underwater archaeological sites and inadequate presentation of cultural heritage and artistic creativity.
- Not provided social protection and inclusion of vulnerable groups (Roma population, displaced persons from former Yugoslav, refugees coming to Montenegro out of the region, persons in the statelessness risk, women in rural areas, disabled persons etc.)	- Although some progress has been made through the introduction of social cards, it is not yet fully established flexible and comprehensive system of social protection; insufficiently developed social and child protection services; it is necessary to improve the methods of working with excluded groups in accordance with international best practice; not imposed rigid sanctions for abuse of the social protection system, for users and providers of social protection; not identified appropriate measures for excluded groups (such as those that are not yet recognized as excluded), poor employed persons, redundancies, women from ethnic communities living in rural areas, large families, unemployed parents and single parents, and people in institutions of social protection. - When it comes to RAE population, access to health care and education is limited and uneven.
- Insufficient number of protected patents on annual basis, as well as a small number of scientific-research institutions and organizations that support/finance scientific-research work, particularly in areas of importance for sustainable development implementation in practice (energy efficiency, clean technologies etc.)	- Lack of funds in the Budget; promotion of economic instruments (fees and subsidiaries for new projects, development of technologies, patents) that would encourage research and development.
- Incompatibility of the education system with the needs of the market at all levels, with special emphasis on the higher education institutions; lack of human resources for areas of sustainable development	- Mismatching of programs to the needs of the market and development trends in Europe and in the world; Non-harmonized material-technical conditions and working with large groups; reduced educational role of schools and weakened ethical dimension at the level of higher education, inadequate enrollment policy; limited level of implementation of legislation and programs in the field of education; lack of professional teachers.
- Lack of information on the environmental pollution impact on human health.	- No monitoring of the state of the environment in the context of the impact on human health (e.g. population exposure to carcinogenic substances such as asbestos, PM particles, etc.).

Table P I- 4: *Summary of problems and causes in the implementation of legal framework of relevance for sustainable development*

Problems	Direct and deeper causes
LEGAL FRAMEWORK	
- Low level of harmonization of national legislation with international instruments (conventions, protocols and agreements) and the EU Directives;;	- Incomplete and missing legal standards
- The lack of efficiency in regulations implementation;	- Not developed professional capacities for regulations implementation;
- Unsatisfactory level of institutional functioning in the implementation of regulations and limited administrative capacity for the realization of program activities;	- Not clearly defined responsibilities among ministries (overlapping responsibilities in policies governing certain areas in respect to the control and pollution protection, such as - water, sea, air, etc.); Insufficient number of officers engaged in the sustainable development activities; insufficient number of skilled personnel;
- Mechanisms of cooperation between state and local authorities have not been sufficiently developed;	- Unsatisfactory level of information exchange and coordination; - The questionable spending of earmarked revenues on the basis of concession fees by local governments is not regulated.
- Reorganization of inspection services by integrating them into a single body, whereby ministries have lost direct and efficient instrument for monitoring the implementation of policies;	- Inefficient inspection control - Insufficient number of inspectors - Imprecise and unclearly defined competencies of inspecting activities at national and local level; - Lack of professional personnel for the inspection control activities.
- Lack of a comprehensive database for environmental monitoring	- Insufficient allocations for financing research and monitoring programs, and unsatisfying existing technical capacities.

Table P I - 5: *Summary of problems and causes in the institutional framework functioning of relevance for sustainable development*

Problems	Direct and deeper causes
INSTITUTIONAL FRAMEWROK	
- Unsatisfactory level of institutional functioning due to overlapping responsibilities and frequent reorganization of departments and sectors (example: in the field of water management, protection and use, through normative organization, is the responsibility of the Ministry of Agriculture and Rural Development, while the Ministry of Transport and Maritime Affairs is responsible for establishing indicators, prevention and implementation of measures in case of marine pollution from ships; also, under the jurisdiction of the MSDT is sustainable use of this resource through integrated coastal zone management, protection of the sea from pollution, waste management and wastewater management, system of public utilities, as well as environmental monitoring which is conducted through the activities of the Environmental Protection Agency; therefore, non-compliance of regulations governing the monitoring of water status is evident – the Law on Environment defines that the Environmental Protection Agency is in charged for monitoring of state of all environmental segments, while at the same time the Law on Waters defines that water monitoring is done by Institute for Hydrometeorology and Seismology according to the monitoring program adopted by the Government on the proposal of MARD. In the field of forestry, evident problem is joining the field of forestry and hunting, to be integrated into a single directorate, which may adversely reflect on sustainable forest management, but also on the system of protection of rare animal species.	- Adoption of political decisions without a greater participation of experts, for functional management and implementation of policy in this area. - Long-term delay in resolving the issue of conflict of jurisdiction of institutions in charged for water protection policy. Failure to recognize the importance of clear recommendations made through the annual EC progress report for Montenegro, as well as other relevant international organizations.
- Unsatisfactory capacities in state bodies for managing/implementing sustainable development policies (most of the bodies - about 90% do not have an officer in charge of sustainable development).	- Frequent organizational changes and significant degree of mobility, above all professional personnel, caused by these changes. - Lack of professional personnel and training programs in this field. - Ignorance of the sustainable development concept by the officials and failure to recognize the obligation to conduct the sustainable development policy. - Limited state budget for hiring new/ professional personnel.

- Insufficiently active role of local authorities in the field of sustainable development (only one municipality has a Local Council for Sustainable Development and therefore, the Secretary of the Council is the relevant contact person).	- Insufficient awareness on the importance of sustainable development policy at the local level; lack of professional personnel that deals with the sustainable development issues; insufficient education on the importance of sustainable development for local government.
- The capacity of the Department to support the National Council for Sustainable Development should be improved, in technical terms, as well as the number of employees. - It is necessary to strengthen, technically and physically, financial and human capacities of the Statistical Office.	- Since the establishment of the Office for Sustainable Development to date, has not recognized the need of engaging officers who can analyze the implementation of measures and objectives of sustainable development within the sector units, as well as the realization of conclusions and recommendations of the National Council, but through regular activities is tried to implement activities of the importance for the sustainable development.
- Non-existence of a system for planning of the annual budget where funds for the realization of sustainable development program activities will be separately planned.	- Continual impossibility of data monitoring that can serve as indicators for monitoring of fulfillment of obligations defined by the National Strategy for Sustainable Development.

8.2. Annex II – Analysis of key driving forces, pressures, states and impacts, following DPSI(R) method

Table P II-6: *Key findings of the Analysis of
driving forces, pressures, states and impacts of
human resource use and management*

THEMATIC AREA	CAUSES/ DRIVING FORCES	PRESSURES	STATE	IMPACTS
Demographic resources	- decreasing rate of natural increase (from 20‰ in the middle of the 20th century to 2,2‰ in 2011); - birth rate decline and mortality growth; - population aging at the level of the state and growth of the number of inhabitants of only 1,3% in the period between 2003 and 2011 census; - negative migration balance in the period 2003-2011; - imbalanced intensity of internal migrations	- breakup of former SFR and wars in the surroundings, international community sanctions, deep economic crisis; - low reproductive standards accepted by the majority of Montenegrin population; - economic exhaustion of Montenegrin citizens that negatively impacts birthrate; - material insecurity and better living conditions (in cities of central and coastal region) which significantly influences internal migrations.	- of natural increase 2,2‰ in 2011 – the lowest recorded so far; - in the period between two censuses (2003—2011), the number of inhabitants is grown for 1,3%; - in the same period negative migration balance of 10.434 inhabitants is achieved; - Only six (of 21) municipalities in Montenegro recorded the growth of the number of inhabitants (in all other municipalities the number of inhabitants is decreased; - 47,3% inhabitants of Montenegro in 1948 lived in the northern region, but in 2011 only 28,7% inhabitants lived there	- reduction of purchasing power and aggregate demand, as well as deceleration of technological development; - Population aging makes Montenegro face growing healthcare expenses, slower growth of human capital and growing rate of unproductive and productive population; - According to MONTSTAT projections, by 2031 Montenegrin population could be within the interval from 642 thousand (high fertility variant and growth of 3,5%) to 578 thousand (constant variant and reduction of population for 6,8%); - According to the United Nations projections, negative demographic trends until 2050 will cause reduction of the number of inhabitants in Montenegro for about 8,2%.

Health	- chronic non-communicable diseases are the main cause of sicknesses, invalidity and premature mortality, as well as for a high number of potentially lost lives; - Everyday need for monitoring, prevention, rapid detection, treatment, control and suppression of common infectious etiology disease; - Inequality in healthcare, especially of sensitive and endangered groups of population; - curatively directed healthcare system, while insufficient presence of promoting measures in terms of health and disease; - Use of tobacco and tobacco products, harmful use of alcohol and alcoholic drinks, unhealthy/incorrect diet and physical inactivity are common risk factors for the majority of preventable non-communicable diseases; - share of healthcare expenditures in GDP is significantly behind EU average (32% less), and fairly behind SEEHN average (12% less); - share of healthcare expenditures in the budget is significantly behind EU average (35% less), and fairly behind SEEHN average (20% less); - share of out of pocket payments in overall healthcare expenditures significantly exceed SEEHN average (42% more); - insufficient level of earmarking for healthcare - 461 dollars per capita (926 dollars per capita, if PPP is taken into consideration), which is two times less than Croatia (or 40% less, if PPP is taken into consideration), and four and a half times less than Slovenia (or 2,8 times less, if PPP is taken into consideration).	- insufficient share of the number of preventive checkups for non-communicable diseases in total number of checkups; - newly identified pathogens and diseases they cause, as well as diseases that are becoming actual again due to changes in human habitat, , increased number of passengers in international transport, then increased risk of disease importation and possible epidemic outbreaks; - inadequate use of antimicrobial medicines; - sensitivity of particular population groups; - limited capacities and resources in the area of healthcare. - Insufficient funds for wide range of services needed within the system - Participation of private funds	- chronic non-communicable diseases participate in overall causes of deaths with almost 80%; - smoking prevalence among adults in 2012 was 31%; - according to body mass index, 55,1% of adults in 2008 was overweight; - Alcohol was consumed by 32% of adult population on daily basis or from time to time in 2012; - Only 11,5% adults practiced physical activity more than three times a week (2008); - Expected life expectancy at birth for men and for women is lower in respect to EU average (74,1 and 79,0 in respect to 77,8 and 83,3); - Mortality rate of newborns is among lowest in the region, but is still higher than in respect to EU average; - Number of doctors per 100.000 inhabitants for 28,5% is lower in respect to EU average (217 in respect to 334).	- With investments into healthcare that are decreasing and high OPP, with the chronic problem of inefficient disposal of resources and growing population needs, the question regarding sustainability of health system is inevitably being opened,; - Insufficiently developed health dedication and inadequately oriented health care cause the necessity for higher expenditures of clinical medicine; - Inefficient use of the existing funds due to inadequate focus on disease prevention and health promotion; - Chronical non-communicable diseases lead to disability, premature mortality and bad quality of life of active population, which negatively influences labor market and economic potential of the country; - Bigger inequality gaps in healthcare of different population groups.

Education and skills	- low investments in pre-primary education ((0,38% of GNP in respect to 0,50% which is OECD average); - huge regional differences in terms of presence and efficiency of pre-primary education; - increased level of violence among children and adolescents; - increased rate of plagiarism perception in higher education; - weakened connection between school labor market, respectively wider social community.	- insufficient capacities for pre-primary education especially in coastal and central region, insufficient level of development in terms of citizen's awareness on pre-primary education significance, and insufficient investments in this area; - insufficient investments into education sector (increased for 50% in the period 2006-2010); - low quality of educational staff (bad selection and job unattractiveness), unequal material-technical conditions in schools and reduced upbringing role of schools; - unfinished reform process in entire education sector.	- Number of pre-primary children is 15% in nursery schools (0-3 years of age), respectively 52% among those of 3-6 years of age. Coverage of RAE population is 19%; - Bad results at PISA testing – Montenegro, depending on the areas concerned, is on 53 to 56 position, out of 65 countries; - Not a single university from Montenegro up to now did not manage to place itself on any of three most prestigious ranking lists of the best universities in the world; - On Webometrics Ranking of World Universities, the University of Montenegro is in the region only better ranked than the University of Tirana.	- Insufficiently developed pre-primary education influences children's development in an inadequate manner, which can have negative socio-economic effects on the society as a whole; - Bad results at PISA testing demonstrate that education system does not prepare the youth in Montenegro in adequate manner for further successful education, future profession, private and social life; - Quality of higher education that is not at a satisfactory level and, for the time being, unsolved issue of lifelong learning, greatly reduce possibilities for the development of human capital and economic potential of the state;

Table P II-7: Key findings of the Analysis of driving forces, pressures, states and impacts of human resources use and management

SOCIAL RESOURCES	CAUSES/ DRIVERS	PRESSURES	STATE	IMPACTS
Attitude of key actors towards sustainability of development	- Conflict among inherited traditional and patriarchal value models and patterns and challenges imposed by the modern society; - Domination of patriarchal values that do not recognize redefinition of traditional roles; - Deep society division in terms of identity; - Non-originality of civil society and dependence on foreign donors; - Formal transformations of institutions (especially educational ones) in accordance with target goals, but without foundation on real capacities; - Even though Montenegrin society is formally based on values of pluralism, it still is not a society based on that values; - Lack of understanding of the Corporate Social Responsibility concept and its usefulness both for the society and the business.	- accelerated social transformation and adoption of international rules and standards in a short period of time, without sufficient understanding of obligations arising from the adoption, as well as sufficient infrastructure that can enable their implementation. Accelerated modernization of the society; - External political factors.	- Dominate traditional type of family responsibilities which as it is cannot withstand challenges of modern social responsibilities where gender and family roles are redefined; - There are various forms of discrimination: gender, national and religious affiliation, sexual orientation, invalidity or age; - Even though formal space for articulation of citizens' interests exists from bottom to top, that direction is not yet a part of political culture in Montenegro; - Educational institutions at all levels cannot respond to the need of socialization of citizen who is a part of sustainable community; - Corporate Social Responsibility is still at the level of individual examples..	- Discordant family relations lead to the lack of happiness and satisfaction and deviant behaviors; - Various forms of discrimination, by gender, national and religious affiliation, sexual orientation, invalidity and age; - Social distrust; - Formal transformation of society that leads to extended transition and disables real consolidation of democracy and pluralism; - Depletion of resources and individual support to certain initiatives by business community.

Values	- Society tightly connected with family ties, so called "status society" not "contract society" ; - Deep society division in terms of identity;; - Accelerated political and economic transformation on winners and losers of transition;	- Accelerated transformation of political system and normative framework that do not give time for internal acceptance of rules.	- Absence of solidarity and absence of interest in terms of issues related to community; - Atomization of society and relativity of value standards and patterns; - Fading of old traditional value system which is not compensated with the new one, for which would be formed social consensus; - Even though the level of multi-ethnic tolerance is relatively high, strong identity divisions which threaten establishment of civil society, subsist.	- Lack of basic evaluating social consensus.
Rule of law and trust in institutions	- Inconsistent implementation of regulations; - Underdeveloped administrative capacities for implementation of regulations; - Poor results regarding the fight against corruption.	- Accelerated harmonization of legal framework with the EU legal system.	- Constitutional principles of civil democracy, social justice, environmental protection and rule of law, did not substantially become constitutive element of legal order; - Even though public institutions enjoy a rather high level of trust, it is in great measure determined by identity divisions; - Corruption remains a serious challenge despite the efforts of the state to find efficient response. - There is a gap between liberal-democratic structure and inadequate insufficiently participatory political culture.	- Weak institutions; „Legal nihilism“, luck of trust in legal order.

Organizational culture	- High power distance prefers centralized model of decision making and giving over responsibilities; - People are not inclined to taking risks, so they leave decision making to others and look for as little uncertainties as possible - Existence of collectivism which implies solid social structures, as well as the protection of chief authority.	- History of cognitive structures shaping in Montenegro, additionally strengthens elements such as collectivism, “female values” and the existence of chief authority; - Cognitive matrix system was strengthen through communism and was the main reason for slow democratization and especially slow, inefficient and expensive economy transformation; - Incompatibility of values with the new, capitalist system.	- Deficit of quality managers and professionalism generally; - Existing organizational structure and culture are in disproportion with the way of doing business which is expected from a modern company; - Culture of corporative management is still in a development phase.	- Lack of entrepreneurial initiative slows the growth of sector for small and medium-sized enterprises, as well as the number of new jobs and overall economic potential; - Reduced innovative capacity, which has particular negative impact on small and medium sized enterprises; - Deficit of quality managers and underdeveloped corporate management culture, which is negatively reflected on efficiency of economic and other subjects; - Aversion to taking risk increases bureaucracy behavior.
Employability, social inclusion and regional development	- Investments depending economy; - Insufficient support to flexibility in adapting market demands; - Insufficient flexibility of educational system in respect to modern movements and labor market needs; - Lack of cooperation between universities, scientific-research institutions and companies.	- Economic situation at global level and economic dependence from wider movements; - Reduced demand for workers due to bad economic situation; - Culture of non-flexibility in stimulating and achieving employability; - Insufficient balance between flexibility and security which discourage employers to employ workers permanently; - Limited resources for active measures of labor market.	- Slow economic growth and opening of new jobs; - Education system is not able to respond to the labor requirements; - Increase of social stratification and gap between rich and poor; - There are a lot of people who, due to different reasons, are in the situation of social stratification; - Low percentage of employees among youth; - Unfavorable gender structure of employees; - Inexistence of adequate mechanisms for integration of persons with disabilities into labor market.	- Low employability of personnel; - Unfavorable age and gender structure of employees; - Uneven regional development.

Balanced regional development	- Bad transport and other infrastructure in the northern region.	- Increase frequency of transport; - Increase tourist capacities and activities; - Unplanned construction.	- Bad transport connection; - Bad condition of the remaining infrastructure; - Bad compliance with ecological standards; - Reduced value level objects and space, generally; - Reduced economic activities.	- Bad tourist and any other offer, especially of the northern region; - Reduced economic activity; - Emigration.
	- Bad socio-economic and social ambience.	- Bad financial situation of local governments, especially in the north; - Deteriorating financial situation of citizens who live out of Podgorica and the coastal part.	- Insufficient number of new jobs; - Negative demographic trends in the north; - Excessive centralization of state above all in Podgorica.	- Moving out from the northern region, in particular youth; - Negative economic and all other trends; - Increase rate of poverty.
	- Unsustainable consumption of natural resources.	- Devastation of natural resources; - Unplanned and inadequate construction.	- Insufficient use of renewable energy sources; - Excessive and uncontrolled clearing of forest in the northern region.	- Devastation of space; - Under utilization of resources.
	- Insufficient investments in human resources especially in the northern region.	- Constant negative demographic trends; - Emigration of youth from the north.	- Insufficient number of highly qualified personnel.	- Reduction of potential for regional development.
Culture	- Insufficient allocations of financial funds for cultural needs, especially at the local level, as well as for informal cultural activities; - Bad capacities for acquisition of extra budgetary funds; - Insufficient attention to the cultural needs of the youth and old, as well as to the needs of marginalized groups; - Unprofitability of cultural activities.	- Difficult financial situation; - Politicalization of culture sector.	- Reduced cultural activities of the society; - Excessive centralization of funds; - Bad spatial conditions of cultural institutions; - Bad governance in culture sector; - In existence of public, updated databases on formal and informal culture actors.	- Degradation of values in Montenegrin society; - Reduction of life quality; - Reduction of cultural diversity; - Reduction of content offer important for spiritual development of society and its values..

Cultural heritage	- Insufficient number of professional capacities in competent institutions; - Insufficient integration of protection principles into spatial planning documents; - Inexistence of unique data base of monumental heritage; - Systematic mapping is not over, whereas insufficient availability of professional basis regarding state and conditions of cultural properties protection is evident; - Inefficient cultural heritage management and protection system; - Insufficient funds and capacities for cultural heritage protection; - Disappearance of non-material culture, traditional customs, manifestations, way of life, etc.; - Degradation of overall value of Montenegrin spiritual and material space, historical art-effects and historical and all other memory of the society, its values and identity; - Violation of authenticity, integrity and the level of preservation of cultural goods; - Loss of fundamental functions of cultural goods, which leads to the loss of income and employability which could be generated by proper and professional use of these goods.	- Excessive urbanization; - Continued deterioration and devastation of cultural monuments; - Illegal trade of movable heritage.	- Inadequate attitude of the owner of movable and immovable cultural heritage; - Degradation and disappearance of movable and immovable cultural heritage; - Disappearance of old crafts; - Disappearance of traditional customs and manifestations.	- Degradation of overall value of Montenegrin space, historical art-effects and historical and all other memory of the society and space; - Vulnerability the cultural values of cultural heritage; Reduction of the tourism offer quality; - Violation of authenticity, integrity and the level of preservation of cultural goods; - Loss of fundamental functions of cultural goods; - Loss of incomes which could be generated by proper and professional use.

Table P II-8: Key findings of the Analysis of driving forces, pressures, states and impacts of natural resources use and management

SOCIAL RESOURCES	CAUSES/ DRIVERS	PRESSURES	STATE	IMPACTS
Biodiversity, forests, ecosystem services, landscape values	- Lack of competent basis for distribution and state of habitats and species; - Lack of precise and systematic data regarding the state of; - Insufficient capacities (especially administrative) in the nature protection system; - Inefficient control and monitoring over activities that endanger ecosystem values and protected natural resources in the coastal area; - Lack of awareness about the importance of natural and landscape values and the importance of their preservation; - Variability and climate change; - Commercial exploitation of forests that is not based on sustainability principles; - Agriculture abandoning and landscape homogenization; - High real estate demand and profitability; - Inefficient construction control process and preferences of investors; - Unsustainable spatial and tourist development; - Depopulation of rural areas; - Lack of instruments (legal, integration etc.) and capacities for landscape protection; - Lack of awareness on the importance of landscape values and need of their preservation.	- Urbanization process; - Changes in land use ; - Construction of tourist, catering and recreational capacities in valuable areas; - Forest exploitation, inefficient forest management in existing and potentially protected areas, illegal logging in certain localities, disbalance between increment and loggings; - Waste water pollution; - Unsustainable tourist activities and insufficient control of impacts which tourist activities imply on protected areas; - Excessive and illegal hunting (birds, wildlife) and fishing; - Reduction of number of certain important species; - Increased risks of drought, fire and biotic pests; - Expansion of construction, expansion of urban areas; - Construction of infrastructural corridors; - Insufficient support to traditional forms of agriculture.	- National network of protected areas currently covers around 12.8% of the territory; - Only 8,6% are land protected areas in respect to the surface of coastal area, or 0% marine protected areas; - Excessive pollution at certain locations; - Fragmentation and conversion of habitats; - Reduced productivity of certain endangered ecosystems (forest vegetation on specific localities, coastal ecosystems, water ecosystems); - Assessment of conditions and trends in species diversity; - Lost properties of certain nature protected resources and areas planned for the protection; - Reduced hunting wildlife population; - Reduced fishing population; - Unattended value of biodiversity and ecosystem uses and services in development and spatial plans; - In planning of economic activities ecosystem approach is not applied; - Concessions do not reflect the real costs connected to forest resources use; - High proportion of dispersed urbanized areas;	- Biodiversity reduction; - Loss of valuable, rare and endemic habitats and species on land and at sea; - Increased number of endangered species; - Reduced ecosystem functionality and stability, especially the water ones; - Forest ecosystems function and services loss; - Increased ecosystems sensitivity and fragility on climate variability and change; - Displacement of vegetation zones, reduction of increment, forests dieback and frequent forest fires; - Loss of agro-biodiversity (domestic varieties and breeds); - Loss of cultural and ecological values of landscapes; - Loss of landscape recognition, homogenization of natural, cultural and agricultural areas; - Disrupted visual quality and traditional identity of landscapes.

Waters	- Urbanization inconsistent with surface water and groundwater sensitivity and is not accompanied by adequate communal infrastructure and facilities; - Outdated technologies in industry; - Lack of implementation of adequate measures for prevention, reduction and/or pollution control, inconsistent implementation of strategic and project impact assessment in exploitation planning (e.g. valorization of hydro potential), as well as the implementation of the best available techniques (BAT); - Inadequate control and prevention pollution system; - Ultimately seasonal character of coastal tourism; - Irrational and inefficient use of waters; - Unsustainable pebble and sand exploitation from river beds; - Incomplete system for efficient prevention and control of risks from torrents and erosions.	- Waste water pollution, communal, industrial and hazardous waste pollution; - Pollution from maritime activities (from ports and from vessels); - Industrial activities; - Inadequate maintained/ obsolete communal infrastructure; - Large water consumption, especially in the coastal part during summer season; - Large losses in water supply systems, misuse of water resources, lack of recycling respectively reuse of water to a more significant extent; - Inadequate location of mariculture (Boka Bay); - Sea accidents.	- Excessive pollution of surface water and groundwater and the sea at some locations; - Eutrophication of the sea; - Uncompleted legal framework (compliance with the EU directives and international conventions); fragmentation, and sometimes overlapping jurisdiction in respect to water management and protection. - occasional water quality deviation of Bojana and Sutorina rivers from the prescribed standards; - Jeopardize quality of certain water sources- not defined or disrupted zones of sanitary protection, peloid deposits and thermal-mineral water sources; - Reduced quantities and salinity of groundwater; - Inadequate economic valuation of water resources by implementing polluter pays principle; Instruments for water management and stimulus for efficient use of water are not applied; - Concessions do not reflect the real costs connected to water resources use; - Not established water cadastre and national water information system; - Undetermined borders and coverage of water bodies; - Undeveloped plans for river basins management; - Inadequate prevention and protection system against floods and erosion.	- Violation of ecological status and change of hydro characteristics of river water flows; - Decrease in sanitary quality of drinking water; - Loss of peloid and thermal-mineral water quality; - Change in chemical and physical characteristics of groundwater; - Violation of marine ecosystem condition and loss of valuable biodiversity; - Decrease in sanitary quality of bathing water.

Air and soil	- Urbanization and infrastructure development, especially the transport one; Inefficient system of control, prevention and remediation of pollution caused by municipal solid waste, industrial and hazardous waste; - Outdated technologies in industry and accumulated historical pollution; - Lack of implementation of adequate prevention measures, reduction and/or pollution control, as well as the implementation of the best available techniques (BAT); - Inadequate control and prevention pollution system; Insufficient investment and institutional-technical support to agriculture; - Unfavorable age and qualification structure of rural population; - Lack of efficient support to sustainable agricultural practices.	- Land consumption which is not harmonized with vulnerability and financial reliability of land; Improper disposal of municipal waste; - Non-executed rehabilitation and remediation of „hot spot“ pollution location: , ash and slag disposal site „Maljevac“ and flotation lead and zinc tailing pond Gradac in Pljevlja, red sludge basins and industrial waste disposal site at KAP location, waste disposal location of Steel plant in Nikšić, disposal site of industrial waste – grit in the Adriatic Shipyard Bijela and location for hazardous waste in „Porto Montenegro“, and flotation tailing pond “Gradir Montenegro” in Šule, as well as the channel Port Milena which is devastated due to a high organic pollution; - Different forms of erosion, including torrential watersheds.	- Air pollution, surface and groundwater pollution; Excessive pollution at certain locations; - Inconsistent data on quality of soil and agricultural lands; Neglected agricultural lands (conversion in the forests); Conversion of agricultural lands; - Fragmentation of agricultural holdings.	- Deterioration of air quality; - Violation of sanitary quality of groundwater; - Deterioration of sea water quality, loss of marine species and habitats in the coastal sea; - Loss of valuable agricultural land and ecosystems associated with agricultural and forestry land; - Deterioration of agricultural land characteristics.

Space	- Lack of economic activity and unemployment; - Reluctance and lack of incentives for the diversification of the economy; - Attractiveness of coastal area for secondary residence or so called „residential tourism“; - Profitability of real estate; - The lack of tax-policy instruments that would discourage over-planning of space; - Inefficient instruments for construction area planning; - Failure in implementing planning documents, especially declared planning objectives; - Lack of high-quality sectoral inputs for spatial plans; - Unsatisfactory level of coordination within governmental bodies; - Inefficient functioning of the public administration; - Lack of city layers that define quality of life in them; - Insufficient pedestrian, bicycle corridors and recreation space and „green“ infrastructure in cities.	- The growth of demand, high prices and the profitability of real estate; - Pressures for continuous expansion of construction areas; - Planning and location of unacceptable content on areas of high vulnerability of space; - Ineffective control and inefficient sanctioning of illegal and unplanned construction.	- Oversized construction areas (GA); - Considerable areas devastated by illegal and unplanned construction of low; Inconsistent settlements, bad architecture; - Lack of city blocks with associated purposes; - Lack of practical application of system solutions for residence of vulnerable groups and special need groups.	- Disturbance and degradation of native landscape and natural values; - Increased costs of utility equipment because of dispersed construction ; - Linear urbanization along the coast; - Increased pollution due to lack of municipal equipping; - Average low quality of constructed areas; - Loss of tourist potential and attractiveness for the development of quality tourism; - Loss of potential for agriculture and rural development; - Poor quality of life in cities.

Metals and non-metals	- Need to achieve greater profitability of production and production costs reduction; - Inseparability of economic growth from material consumption; - Resource inefficient consumption of metals and non-metals (construction and industry; resources intense metal industry).	- Use and processing of mineral raw materials associated with significant negative impacts on the environment, devastated areas are rarely or never restored; - Concessions for use of certain raw materials mainly do not reflect real costs related to use of these resources; - Lignite exploitation is considerably (directly or indirectly) subsidized, including subsidiaries harmful for the environment.	- Unsustainable consumption of metals and non-metals; - The biggest contribution to the growth of the DMC (from 2006 to 2013 for 7%) was brought by consumption of non-metallic mineral resources – share in total DMC 60%, which represents an increase for 21%; - Ore metal consumption recorded negative growing rate during monitored period (-83%), and at the same time great decline of share in overall DMC from 8,4% to 1,3%; - Violation of environmental quality (devastation, increase the cost for protection / rehabilitation of the environment).	- Loss of habitats and species; - Soil pollution; - Air pollution; - Increase of air and soil pollution negative impacts of on human health; - Violation of landscapes quality.

Table P II-9: Key findings of the Analysis of driving forces, pressures, states and impacts of economic resources use and management

ECONOMIC RESOURCES	CAUSES/ DRIVERS	PRESSURES	STATE	IMPACTS
Macroeconomic trends and sustainable development management	- Reduction in economic activity during the crisis, primarily due to changes in the external demand; - Lack of consensus on development policy and priorities in the Assembly of Montenegro; - Model of economic development based on FDI attraction, not on competitiveness;	- Limited budgetary resources to stimulate growth and employability; Insufficient inflow of FDI; - Difficult realization of principal development projects, especially in energy and tourism; - Insufficient macro and macro-competitiveness of the Montenegrin economy;	- GDP: 3.595 mil € (2015*); - GDP/pc 5.561 € ili 41 in respect to the EU average (EU=100, BDP/pc in purchasing power parity, 2014); - GDP real growth rate for 2014. is 1,8% and estimation for 2015. – 3,2%; - Net FDI in GDP – 11,3% (2015); - 172.517 registered employees (2015), employability rate of 52,5%; - 40.000 registered unemployed (18,8%), by ARS 17,5% (2015); - Public debt 66% of GDP by the end of 2015; - Budget deficit of 6% by the end of 2015; - Government debt of up to 433 mil € in 2016 for debt servicing, plus additional 255 mil € for financing of the priority highway section; - Coverage of imports by exports – 21% (2013) and 18,7% (2014).	- Delay in implementation of priority development projects that affect the dynamics of economic growth and employability; - Unused development resources in all areas (human, social, natural and economic capital); - Unemployment growth; - Growth of social welfare beneficiaries; - brain drain, especially young ones; - small number of new green jobs; - high level of sensitivity to trends in the international economy; - Dependence of international markets and inflow of FDI, in the absence of domestic sources; - Difficulty in sustainable management of public finances.
Economic growth rate	- Structural disbalance in the labor market; - Dynamic change of economic structure (falling behind industries, unemployment growth, difficult to employ categories of population); - Grey economy; - High import dependence, low export competitiveness; - Lack of investment funds (“delayed development “).	- Insufficient funds of active employment policy; - Growth of informal forms of employability; - Regional inequalities and labor force migration from the North towards Podgorica and coastal area); - Depopulation of areas - Growth of debt, high debt service obligations; - Deficit of the Fund for Pension and Disability Insurance; - primary budget deficit; - Pressure on fiscal sustainability and stability of financial i.e. banking system		
Employability				
Payments equilibrium with focus on indebtedness indicator, inflow of foreign direct investments (FDI) and trade deficit indicator				

Mitigation of climate change (energy, industry, transport)	- Insufficient energy efficiency improvement; - Energy inefficiency in production and distribution of energy, as well as in final energy consumption; - trend of constructing buildings with inadequate energy characteristics; - Insufficient development of institutional framework for EE.	- High energy intensity; - Energy inefficiency in final energy consumption, which increases usually high energy intensity; - Defined indicative target for energy efficiency (energy savings of 9% by 2018, the goal expressed in equivalent primary energy (final primary energy consumption)); - Indicative target for energy efficiency does not include energy consumption in industry (KAP).	- Great potential for improving energy efficiency; - Two national action plans for energy efficiency for the period by the end of 2015 adopted, it is expected to be adopted the third one, which will be valid for the period by the end of 2018; - National action plan for the use of energy from renewable sources by 2020 adopted - national target for increasing the share of energy from renewable sources in gross final consumption of energy is that it increases to 33% of share by 2020.	- Does not require big investments; Reducing the consumption of electricity and heat; - More significant effect of renewable energy sources and energy efficiency; - Relatively lower energy intensity in all sectors of consumption.
	- Outdated and inefficient technology in existing block of thermal power plant Pljevlja.	- Combustion of large amounts of lignite; - Planned construction of a new block; - Waste from thermal power plant; - Other pollutions of air, water and soil	- Low efficiency of combustion; - Ash and slag disposal site should not be further used, and a new solution has still not been found; - Excessive emissions of other air pollutants.	- The largest contribution to CO2 emissions and total GHG emissions in the country; - The largest contribution to total emissions of air pollutants; - Quality of the environment and health of the population around the plant.
	- Outdated and inefficient technology in industrial plant of KAP.	- Emissions of PFC in the process of electrolysis; - Fossil fuel combustion, primarily light distillate oil; - Other pollutions of air, water and soil.	- Large number of anode effects and the duration thereof; - Inefficient combustion of fossil fuels and extremely high consumption of electricity; - Excessive emissions of other air pollutants.	- The largest contribution to the total emissions of synthetic gases in the country; - The largest contribution to total emissions of gases in the country; - Quality of the environment

	- Insufficient use of renewable energy sources (OIE).	- Defined obligatory national target for RES share in gross final consumption of energy 33% by 2020	- Great potential for using renewable energy sources; - National action plan for the use of energy from renewable sources by 2020 adopted	- Requires large investments; Increase of prices of electricity and heat.
	- Insufficient care and forest management; - Unused opportunities and inefficient use of biomass	- Forest fires; Uncontrolled and unplanned logging; - Volume of production and finalization in the wood processing sector is very low; - Uncontrolled use of biomass: uncontrolled logging, inefficient use of biomass for domestic hot water and space heating, undeveloped possibilities for use of biomass for the production of wood fuel, or biomass for remote heating.	- Non-functioning of the fight against forest fires; A large amount of technical wood is used for fuel, a major part of exports is sold as raw material or lumber; - Insufficiently developed market for wood.	- No investments; - Undeveloped wood industry; - Lack of staff and low motivation in forestry and wood industry; - Inadequate education.
Roadmap resource efficiency and sustainable production and consumption				

Energy Sustainable production and energy consumption	- Unfavorable structure of final consumption: domination of electricity in energy balance; - No infrastructure/ market for the use of natural gas, nor access to international corridors of natural gas; - Great potential, i.e. unused renewable energy sources (OIE); Insufficient exploration of certain resources: oil and gas, as well as of certain RES; - High amortization of existing energy infrastructure and need for its accelerated revitalization and technological modernization; - Unused potential of waste for energy purposes.	- Unused principal energy resource – hydro-energy potential of Montenegro; - Delay of programs and projects in the realization of the Energy Development Strategy (previous strategy); - Due to the size of the market the effects of national electricity market opening are limited, without development of integrated regional market in the South-East Europe (SEE); - High import dependence (entire demand for liquid and gaseous fuels and around 1/3 of electricity); - Limited possibilities for substitution of energy generating products.	- In 2013 electric energy production of 3.785 GWh was achieved, with net export of 442 GWh; - In the structure of final consumption of energy, households participate with 40%, industry 28%, transport 27%, services 4% and agriculture 1%.	- Ensuring the security of energy supply; Development of a competitive energy market; - Sustainable energy development (greening of energy sector), with more intense use of RES and EE; - By 2020 construction of IAP gas line; - Structure of final consumption is changing in the favor of more quality energy generating products: natural gas, heat from remote heating, electricity, motor fuels, at the detriment of coal and fuel wood.

Development consensus on energy policy	- Lack of wider national consensus on the importance of energy investments in order to support the overall development of the country, and indecision regarding activation of a large hydro-energy potential; - Unused principal energy resource – hydro-energy potential of Montenegro; - Poor cooperation between scientific-research institutions and companies in the energy sector affecting the poor participation in national and international programs for research and innovation.	- Unregulated relations with neighboring countries about optimal use of shared watercourses; - Insufficient involvement of local scientific and professional institutions in solving the problems of the energy sector; - Lack of a domestic industry that would actively supported the development of energy and create new jobs; - Lack of results of relevant scientific researches for sustainable valorization of oil and gas, as well as of certain RES.	- Non-valorized hydro-energy potential in Montenegro – used less than 20% of the total hydro-potential; - Delayed realization of large number of projects form the field of energy; Inviting tenders for allocation of contracts on concessions for research and concessions for CO2 production in the seabed of Montenegro (2013), activities on oil and gas researches are started.	- Indicative investment costs of the Energy Development Strategy by 2030 exceed 4,1 mlrd €, of which 1,16 mlrd € relates to the production of electrical power plants (big HE and TE), and 728 mil € on RES (small HE, wind power, photovoltaic power plants, biomass power plants, cogeneration biomass, incinerators for mixed, solid and municipal waste) ; - Growth of electricity production from domestic sources increased employment for 0,3% and budget incomes for 4,9% (direct effects, ISSP, 2007).

Industry	- Reduction of industrial production in the period of transitional recession and later, economic crisis (for 25 years of transition, from 35% to 13% in GAV structure); Technological delay.	- Low productivity; Low competitiveness level; - Lack of investments and innovations; - Negative impact on state of the environment; - Lack of investments and innovations.	- Processing industry creates 10,8% of GDP of Montenegro and 7,5% of employment (12.800); Reindustrialization (based on the sustainable development principles) involved in the development directions as development potential.	- Quality of the environment and health of the population around the plant; - Diversification of different activities that should contribute to the greening of the economy and jobs.
Entrepreneurship and SMEs	- Business environment for entrepreneurship and SMEs development in Montenegro still has a large number of business barriers (legislative, administrative, access to finance, start-up, promotion, education, new knowledge and skills, innovation, quality standards); - Insufficient consideration of environmental protection standards and eco-management.	- Regulation Guillotine – improvement of business environment; - Strengthening of financial support; - Enhancing the competitiveness of SMEs and promotion of entrepreneurship; - Support to beginners in business - start up; - Special support for women's entrepreneurship, social entrepreneurship and family business.	- 23.895. of SMEs in 2014. that represent 99% of total number of enterprises in Montenegro; - 148.000 employees; Important factor in regional and rural development of the country; - 14 NGOs registered for running a business, one protective workshop and one LTD has characteristics of social enterprises.	- Green entrepreneurship; - Enhancing entrepreneurship, and family business; - Strengthening of clusters; - Promotion of traditional crafts in the function of tourist development; - Competitiveness growth.
Agriculture	- Low level of technology and specialization of agricultural production, outdated equipment, low level of mechanization use and lack of knowledge; Fragmentation of primary agriculture; - Disorganization and lack of horizontal and vertical connections in agriculture; - Unsatisfactory level of quality standards (sanitary and environmental); Inefficiency and lack of competitiveness of processing industry in agriculture; - Unfavorable conditions in rural areas (population age structure, infrastructure); - Insufficient budgetary support to agriculture.	- The growth of competition creates a need to find new forms of lending and merging; - The growth of traditional certified products; - Laboratories accreditation; - Faster technological development, enchantment of abilities and institutions that support agricultural development; - The growth in demand for traditional agricultural products; - The growth of support for agriculture and rural development (agro-budget, loans, IPARD), in particular to improve the competitiveness and sustainable resource management.	- In 49.000 households work around 98.000 persons (while registered employability is 2.771 – 2013); - Agriculture creates around 8% of GDP; - Agriculture land, with total surface of 516.070 ha, makes 37,4% of Montenegrin territory. The largest shares of agricultural land represent pastures (62%) and meadows (25%), while the share of arable land is low (9-10%); - High import of agricultural products, inadequate and insufficiently competitive exports.	- The growth of organic production; - Still sufficient agricultural labor force seeking additional employment opportunities; - Infrastructure improvement for rural and agricultural development; - Agricultural land management in an optimal and sustainable way; - Agriculture is the basis for development of food industry; - Complementarity of agriculture, tourism and preservation of cultural heritage; - Preservation of tradition and cultural heritage in rural areas.

Tourism	- Parts of tourism infrastructure, accommodations and services do not meet requirements of high-quality tourist destination; - Inadequate cohesion with emissive tourist markets; - Concentration of tourist activities and infrastructure in the coastal part of the country; - Violation of natural values and the loss of natural capital by the development of tourism infrastructure and concentration of visits to sensitive sites; - Tourism is developing in a way that does not bring significant benefits to local community.	- Pressure on space and construction level, especially in the coastal part; - Seasonal character of tourism and dominant presence in coastal area increase environmental loads of this region; - To a large extent tourism is based on the use of natural resources (space, water, fuel, electricity and food), and at the same time contribute to significant amounts of waste and pollution; - Pressure on existing infrastructure.	- In 2014 Montenegro was visited by 1,5 mil of tourists; - Direct contribution of tourism and travel sector in GDP in 2013 was 9,8% of GDP, with expected growth of 12,6% in 2014, annual growth of 8,6% in the period 2014-2024, when expects to reach the level of GDP participation of 17,7%.	- Diversification of tourist offer especially in relation to forms of tourism based on nature;; - Greening of tourism through destination planning, diversification of offer and eco-tourism development; - Greening of jobs; - Development of attractive tourist destination with quality, full-year offer; - Development of quality hotel sector; - Contribution of tourism to sustainable development through carbon-neutral services and increase of resource efficiency.
Civil engineering and residence	- Use of construction materials and products that do not meet the criteria of sustainability; - Insufficient recycling of construction waste; - High energy consumption in the building and residence sector (heating and cooling).	- As many as 70% of residential buildings requires adaptation to increase EE; - Inadequate planning of infrastructure and cities; - Maintenance and reconstruction of objects and energy management in buildings (energy management).	- Participation in gross added value in 2013 was around 5%, as much as in the total registered employability (8.463, 2013).	- Improved design of objects; - Introduction of energy efficient construction standards (green building); - "Greening" of existing jobs (designing and construction jobs).

Coastal area resource management	- Lack of implementation of ICZM instruments in longer period of time; - Unsustainable exploitation of unrenovable natural resources (space and landscape values); - Violation of the natural characteristics of the coastal area; - Disperse expansion of settlements; - Inadequate valorization of local natural, architectural and landscape values; - Insufficient control of fish catch; - Inadequate treatment of waste and waste water in ports and marinas; - Subjects in the field of maritime transport and shipbuilding generate pressures on the sea and the coastal area.	- Endangering habitat, biodiversity and natural balance in general; - Small fishery sector without industrial fishing; - Undeveloped land infrastructures for the development of fisheries; - Illegal, unreported and unregulated fishing; - Development of rural areas in the hinterland (increase of food production, particularly fruit – citrus, olives and olive oil); - Due to inadequate connection with the hinterland, the Port of Bar losses its race with competing ports in the region (Ploče and Drač).	- Starts implementation of instruments for preservation and sustainable management of coastal areas resources; - The Special Purpose Plan for Coastal Zone is being developed; - Starts introduction of spatial planning of sea purpose; - Participation of fishery in GDP is only 0,5%; In 2013 in marine fisheries was 269 employees, whereby the majority temporarily (179); There are 170 persons in aquaculture activities; - Operative are the Port of Bar, ports of Kotor and Zelenika; - Shipyard Bijela works with reduced capacity expecting the transformation into a service for mega yachts; - Mole for mega-yachts Porto Montenegro (symbol of high quality tourism development in Montenegro).	- NSICZM is adopted; - Improved possibilities for development programs of tourism, maritime economy, fisheries and aquaculture, and use of other natural resources; - Linking fishing and fish farming with tourism; - Sustainable development of small pelagic fish catches and development of breeding capacities; - Diversification of coastal economy - Rural development incentives;

Waste management and implementation of circular economy approaches	- Linear model of economic growth “take, produce, spend and discard”); - Assumption that all materials taken from nature are inexhaustible; - Unfinished system for regulated disposal of municipal and industrial waste; - Modern technological solutions and practices are not applied as to reduce the amount of generated waste and its treatment; - Not established the recycling system and the reuse of materials systems;	- 243.941 t is the amount of waste generated in 2013 (MSDT report); - 155 waste disposal sites; - Around 30% of overall quantity of generated waste at year level ends up on non-regulated, and around 30% on illegal dumpsites; - In the period 1990-2011 waste gas emissions decreased for 20%.	- State Waste Management Plan with AP 2015-2020 is adopted and defines three possible models for waste management; - Infrastructure for waste treatment is not constructed to the extent that would enable significant reduction of anthropogenic pressures on population health, natural resources and optimal development of Montenegro as tourist destination (insufficient capacities of two solid waste landfills in Podgorica and in Bar - Soil, groundwater and surface water pollution - Keeping records on waste quantities generated, collected and primarily selected at the territory of Montenegro is at unsatisfactory level.	- Transition towards circular economy; - Introduction of sustainable consumption and production pattern; - Reducing the impact of products through their life cycle, waste generating prevention, recycling and reuse (achieving the goals defined in national legislation and strategic documents); - Measures to encourage research and innovation, implementation of market-based instruments and the like.

8.3. Annex III – Overview of the UN tasks recognition in respect to the NSSD priority themes

Goal 1. End poverty everywhere in all its forms								
Tasks	Human resources	Social resources	Natural resources	Economic resources	Governance for sustainable development	Financing for sustainable development	Non-integrated tasks	Coverage
1.1		x					0	1
1.2		x					0	1
1.3		x					0	1
1.4		x					0	1
1.5		x	x				0	2
1.a		x					0	1
1.b		x					0	1
Goal 2. Put an end to hunger, achieve food safety, improve nutrition and promote sustainable agriculture								
2.1		x					0	1
2.2		x					0	1
2.3				x			0	1
2.4			x	x			0	2
2.5				x			0	1
2.a				x			0	1
2.b				x			0	1
2.c				x			0	1
Goal 3. Procure healthy life and promote well-being of all people of all ages								
3.1	x	x					0	2
3.2	x	x					0	2
3.3		x					0	1
3.4	x						0	1
3.5	x						0	1
3.6	x						0	1
3.7	x	x					0	2
3.8	x	x					0	2

3.9			x			0	1
3.a	x					0	1
3.b	x					0	1
3.c	x					0	1
3.d			x			0	1
Goal 4. Procure inclusive and quality education and promote lifelong learning for everybody							
4.1	x					0	1
4.2	x					0	1
4.3	x					0	1
4.4	x	x				0	2
4.5	x					0	1
4.6	x					0	1
4.7	x	x				0	2
4.a	x					0	1
4.b	x					0	1
4.c	x					0	1
Goal 5. Achieve gender equality and empower all women and girls							
5.1		x				0	1
5.2		x				0	1
5.3		x				0	1
5.4		x				0	1
5.5		x				0	1
5.6		x				0	1
5.a		x				0	1
5.b		x				0	1
5.c		x				0	1
Goal 6. Procure access to and sustainable management of water and sewage for everybody							
6.1			x			0	1
6.2			x			0	1
6.3			x	x		0	2
6.4			x			0	1
6.5			x			0	1
6.6			x			0	1
6.a			x		x	0	2
6.b			x	x	x	0	3
Goal 7. Procure access to affordable, reliable, sustainable and modern energy for everybody							
7.1				x		0	1
7.2			x	x		0	2

7.3			x	x			0	2
7.a			x	x			0	2
7.b				x			0	1
Goal 8. Promote continuous, inclusive and sustainable economic growth, full and productive employment and decent work for everybody								
8.1		x		x			0	2
8.2		x		x		x	0	3
8.3	x	x	x	x		x	0	5
8.4			x	x			0	2
8.5		x		x			0	2
8.6		x					0	1
8.7		x					0	1
8.8		x					0	1
8.9		x					0	1
8.a				x		x	0	2
8.b		x					0	1
Goal 9. Build resistant infrastructure, promote inclusive and sustainable industrialization and encourage innovations								
9.1		x		x			0	2
9.2				x			0	1
9.3				x			0	1
9.4			x	x			0	2
9.5			x	x			0	2
9.a							1	0
9.b						x	0	1
9.c							1	0
Goal 10. Reduce inequality within and among countries								
10.1		x				x	0	2
10.2		x		x		x	0	3
10.3		x				x	0	2
10.4		x				x	0	2
10.5						x	0	1
10.6						x	0	1
10.7	x			x			0	2
10.a						x	0	1
10.b				x		x	0	2
10.c		x					0	1
Goal 11. Make cities and human settlements inclusive, safe, resistant and sustainable								
11.1		x	x				0	2
11.2		x	x				0	2
11.3			x				0	1
11.4		x	x				0	2
11.5			x				0	1

11.6			x	x		0	2
11.7			x			0	1
11.a			x			0	1
11.b			x	x		0	2
11.c			x			0	1
Goal 12. Procure sustainable patterns of consumption and production							
12.1			x	x		0	2
12.2			x	x	x	0	3
12.3				x		0	1
12.4			x	x		0	2
12.5				x		0	1
12.6				x		0	1
12.7				x		0	1
12.8			x	x		0	2
12.a				x	x	0	2
12.b				x	x	0	2
12.c				x		0	1
Goal 13. Take urgent action in fighting against climate changes and their impacts							
13.1			x	x		0	2
13.2			x	x	x	0	3
13.3			x	x	x	0	3
13.a			x		x	0	2
13.b			x			0	1
Goal 14. Preserve and sustainably use oceans, seas and marine resources for sustainable development							
14.1			x	x		0	2
14.2			x	x		0	2
14.3			x			0	1
14.4				x		0	1
14.5			x	x		0	2
14.6				x		0	1
14.7			x			0	1
14.a			x			0	1
14.b			x			0	1
14.c			x	x		0	2
Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainable management of forests, suppress occurrence of desertification, stop and reverse degradation process of land and stop biodiversity loss							
15.1			x			0	1
15.2			x	x	x	0	3
15.3			x			0	1
15.4			x			0	1
15.5			x	x		0	2

15.6				x			0	1
15.7			x				0	1
15.8			x				0	1
15.9			x				0	1
15.a			x			x	0	2
15.b			x	x		x	0	3
15.c			x				0	1
Goal 16. Promote peaceful and inclusive societies for sustainable development, procure access to justice to everybody and build effective, responsible and inclusive institutions at all levels								
16.1		x					0	1
16.2		x					0	1
16.3		x					0	1
16.4		x					0	1
16.5		x					0	1
16.6		x	x		x	x	0	4
16.7		x			x		0	2
16.8					x		0	1
16.9		x					0	1
16.10		x			x		0	2
16.a		x			x		0	2
16.b		x			x		0	2
Goal 17: Improve implementation means and restore Global partnership for sustainable development								
17.1				x	x	x	0	3
17.2				x		x	0	2
17.3				x	x	x	0	3
17.4	x		x	x		x	0	4
17.5						x	0	1
17.6				x	x	x	0	3
17.7				x	x	x	0	4
17.8					x		0	1
17.9				x	x	x	0	3
17.10						x	0	1
17.11						x	0	1
17.12						x	0	1
17.13				x	x	x	0	3
17.14				x	x	x	0	3
17.15			x		x		0	2
17.16				x	x	x	0	3
17.17			x	x	x	x	0	4
17.18				x	x	x	0	3
17.19				x	x	x	0	3

8.4. Annex IV – Overview of sustainable development indicators from the UN list grouped in six priority themes of the NSSD

Table P IV- 1: *Overview of sustainable development indicators from the UN list, Thematic area: Human resources*

Indicator code	Name of indicator	Indicator followed by name and content?	Is there an alternative for indicator by content?		Introduction of indicator is planned in the period 2018-2024?	Institution responsible	UN
SDG1.5.1	Number of deaths, missing persons and persons affected by disaster per 100,000 people				YES	Ministry of Internal Affairs	YES
SDG2.1.1	Prevalence of undernourishment			YES		Monstat	YES
SDG2.1.2	Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)			YES		Monstat	YES
SDG2.2.1	Prevalence of stunting (height for age <-2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age			YES		Monstat	YES

SDG2.2.2	Prevalence of malnutrition (weight for height >+2 or <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight)			YES		Monstat	NO
SDG3.1.1	Maternal mortality ratio			YES		Institute for Public Health	YES
SDG3.1.2	Proportion of births attended by skilled health personnel	YES				Institute for Public Health	YES
SDG3.2.1	Under-five mortality rate	YES				Monstat	YES
SDG3.2.2	Neonatal mortality rate	YES				Monstat	YES
SDG3.3.1	Number of new HIV infections per 1,000 uninfected population, by sex, age and key populations		YES			Institute for Public Health	YES
SDG3.3.2	Tuberculosis incidence per 1,000 population	YES				Institute for Public Health	YES
SDG3.3.3	Malaria incidence per 1,000 population	YES				Institute for Public Health	YES
SDG3.3.4	Hepatitis B incidence per 100,000 population	YES				Institute for Public Health	YES
SDG3.3.5	Number of people requiring interventions against neglected tropical diseases		YES			Institute for Public Health	NO
SDG3.4.1	Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease			YES		Institute for Public Health	YES

SDG3.4.2	Suicide mortality rate			YES		Institute for Public Health	NO
SDG3.5.1	Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders			YES		Institute for Public Health	YES
SDG3.5.2	Harmful use of alcohol, defined according to the national context as alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol			YES		Institute for Public Health	NO
SDG3.6.1	Death rate due to road traffic injuries			YES		Institute for Public Health	YES
SDG3.8.1	Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population)				YES	Institute for Public Health	YES
SDG3.8.2	Number of people covered by health insurance or a public health system per 1,000 population	YES				Health Insurance Fund	NO

	a) Mortality rate attributed to household and ambient air pollution					Institute for Public Health	NO
SDG3.9.1	b) Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services)			YES		Institute for Public Health	NO
SDG3.9.3	Mortality rate attributed to unintentional poisoning			YES		Institute for Public Health	NO
SDG3.a.1	Age-standardized prevalence of current tobacco use among persons aged 15 years and older		YES			Institute for Public Health	YES
SDG3.b.1	Proportion of the population with access to affordable medicines and vaccines on a sustainable basis				YES	Institute for Public Health	YES
SDG3.c.1	Health worker density and distribution	YES				Institute for Public Health	YES
SDG3.d.1	International Health Regulations (IHR) capacity and health emergency preparedness				YES	Institute for Public Health	YES
SDG4.1.1	Proportion of children and young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex	YES				Ministry of Education	YES

SDG4.2.1	Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex			YES		Monstat	YES
SDG4.2.2	Proportion of children and young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex		YES			Ministry of Education	NO
SDG4.3.1	Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex		YES			Monstat	YES
SDG4.4.1	Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill	YES				Monstat	YES
SDG4.6.1	Percentage of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex				YES	Ministry of Education	YES
SDG6.1.1	Proportion of population using safely managed drinking water services				YES	MSDT	YES
SDG6.2.1	Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water		YES			Environmental Protection Agency	YES

SDG11.5.1	Number of deaths, missing persons and persons affected by disaster per 100,000 people				YES	Ministry of Internal Affairs	YES
SDG11.7.2	Proportion of persons victim of physical or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months				YES	Ministry for Human and Minority Rights	YES
SDG12.8.1	Extent to which (i) global citizenship education and (ii) education for sustainable development (including climate change education) are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment				YES	Ministry of Education	NO
SDG13.1.2	Number of deaths, missing persons and persons affected by disaster per 100,000 people		YES			Ministry of Internal Affairs	YES
SDG16.1.1	Number of victims of intentional homicide per 100,000 population, by sex and age				YES	Ministry of Internal Affairs	YES
SDG16.1.2	Conflict-related deaths per 100,000 population, by sex, age and cause				NO	Responsible institution to be determined during implementation	YES
SDG16.9.1	Proportion of children under 5 years of age whose births have been registered with a civil authority, by age	YES				Ministry of Internal Affairs	YES

Table P IV – 2 : Overview of sustainable development indicators from the UN list, Thematic area: Social resources

Indicator code	Name of indicator	Indicator followed by name and content?	Is there an alternative for indicator by content?	Introduction of indicator is planned by 2018 ?	Introduction of indicator is planned in the period 2018-2024 ?	Institution responsible	UN methodology for indicator is developed ?
SDG1.1.1	Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural)			YES		Monstat	YES
SDG1.2.1	Proportion of population living below the national poverty line, by sex and age				YES	Monstat	YES
SDG1.2.2	Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions				YES	Monstat	NO
SDG1.3.1	Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, workinjury victims and the poor and the vulnerable				YES	Monstat	NO
SDG1.4.1	Proportion of population living in households with access to basic services				YES	Monstat	NO

SDG1.4.2	Proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure				YES	Real Estate Administration	YES
SDG3.7.1	Proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern methods			YES		Monstat	YES
SDG3.7.2	Adolescent birth rate (aged 10-14 years; aged 15-19 years) per 1,000 women in that age group			YES		Monstat	YES
SDG4.5.1	Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflictaffected, as data become available) for all education indicators on this list that can be disaggregated		YES			Monstat	YES
SDG4.7.1	Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies, (b) curricula, (c) teacher education and (d) student assessment		YES			Ministry of Education	NO

SDG4.a.1	Proportion of schools with access to: (a) electricity; (b) the Internet for pedagogical purposes; (c) computers for pedagogical purposes; (d) adapted infrastructure and materials for students with disabilities; (e) basic drinking water; (f) singlesex basic sanitation facilities; and (g) basic handwashing facilities (as per the WASH indicator definitions)		YES			Ministry of Education	YES
SDG4.c.1	Proportion of teachers in: (a) pre-primary; (b) primary; (c) lower secondary; and (d) upper secondary education who have received at least the minimum organized teacher training (e.g. pedagogical training) pre-service or in-service required for teaching at the relevant level in a given country	YES				Ministry of Education	YES
SDG5.2.1	Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age				YES	Ministry for Human and Minority Rights	NO
SDG5.2.2	Proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months, by age and place of occurrence				YES	Ministry for Human and Minority Rights	YES

SDG5.3.1	Proportion of women aged 20-24 years who were married or in a union before age 15 and before age 18			YES		Monstat	YES
SDG5.3.2	Proportion of girls and women aged 15-49 years who have undergone female genital mutilation/ cutting, by age					Not relevant for MNE	YES
SDG5.4.1	Proportion of time spent on unpaid domestic and care work, by sex, age and location				YES	Ministry of Labour and Social Welfare	YES
SDG5.5.1	Proportion of seats held by women in national parliaments and local governments				YES	Ministry for Human and Minority Right	YES
SDG5.5.2	Proportion of women in managerial positions		YES			Ministry for Human and Minority Right	YES
SDG5.6.1	Proportion of women aged 15-49 years who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care				YES	Ministry of Health	YES
SDG5.a.1	(a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and; and (b) share of women among owners or rights-bearers of agricultural land, by type of tenure		YES			Monstat	YES
SDG5.b.1	Proportion of individuals who own a mobile telephone, by sex		YES			Monstat	YES

SDG7.1.1	Proportion of population with access to electricity	YES				Monstat	YES
SDG8.3.1	Proportion of informal employment in non-agriculture employment, by sex				YES	Monstat	YES
SDG8.5.1	Average hourly earnings of female and male employees, by occupation, age and persons with disabilities			YES		Monstat	YES
SDG8.5.2	Unemployment rate, by sex, age and persons with disabilities	YES				Monstat	YES
SDG8.6.1	Proportion of youth (aged 15-24 years) not in education, employment or training	YES				Monstat	YES
SDG8.7.1	Proportion and number of children aged 5-17 years engaged in child labour, by sex and age			YES		Monstat	YES
SDG8.8.1	Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status				YES	Ministry of Health	YES
SDG8.10.1	Number of commercial bank branches and automated teller machines (ATMs) per 100,000 adults	YES				Central Bank of Montenegro	YES
SDG8.10.2	Proportion of adults (15 years and older) with an account at a bank or other financial institution or with a mobile-money-service provider				YES	Central Bank of Montenegro	YES
SDG9.1.1	Proportion of the rural population who live within 2 km of an all-season road				YES	MSDT	NO

SDG9.c.1	Proportion of population covered by a mobile network, by technology				YES	Agency for Electronic Communications and Postal Services	YES
SDG10.1.1	Growth rates of household expenditure or income per capita among the bottom 40 per cent of the population and the total population				NO	Monstat	YES
SDG10.2.1	Proportion of people living below 50 per cent of median income, by age, sex and persons with disabilities			YES		Monstat	YES
SDG10.3.1	Proportion of the population reporting having personally felt discriminated against or harassed within the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law				YES	Ministry for Human and Minority Right	YES
SDG10.4.1	Labour share of GDP, comprising wages and social protection transfers		YES			Monstat	YES
SDG10.7.1	Recruitment cost borne by employee as a proportion of yearly income earned in country of destination				YES	To be determined during implementation	YES
SDG11.1.1	Proportion of urban population living in slums, informal settlements or inadequate housing				YES	Monstat	YES

SDG11.2.1	Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities				YES	Ministry of Transport	YES
SDG11.7.1	Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities			YES		MSDT	YES
SDG16.1.3	Proportion of population subjected to physical, psychological or sexual violence in the previous 12 months				YES	Ministry of Internal Affairs	NO
SDG16.1.4	Proportion of population that feel safe walking alone around the area they live				NO	To be determined during implementation	NO
SDG16.2.1	Proportion of children aged 1-17 years who experienced any physical punishment and/or psychological aggression by caregivers in the past month				NO	To be determined during implementation	NO
SDG16.2.2	Number of victims of human trafficking per 100,000 population, by sex, age and form of exploitation				YES	Ministry of Internal Affairs	YES
SDG16.2.3	Proportion of young women and men aged 18-29 years who experienced sexual violence by age 18				YES	Ministry of Internal Affairs	YES
SDG16.3.1	Proportion of victims of violence in the previous 12 months who reported their victimization to competent authorities or other officially recognized conflict resolution mechanisms				YES	Ministry of Internal Affairs	YES

SDG16.3.2	Unsentenced detainees as a proportion of overall prison population				YES	Ministry of Justice	YES
SDG16.4.1	Total value of inward and outward illicit financial flows (in current United States dollars)				NO	Ministry of Internal Affairs	YES
SDG16.4.2	Proportion of seized small arms and light weapons that are recorded and traced, in accordance with international standards and legal instruments	YES				Ministry of Internal Affairs Ministry of Foreign Affairs and European Integrations	NO
SDG16.5.1	Proportion of persons who had at least one contact with a public official and who paid a bribe to a public official, or were asked for a bribe by those public officials, during the previous 12 months				NO	To be determined during implementation	YES
SDG16.5.2	Proportion of businesses that had at least one contact with a public official and that paid a bribe to a public official, or were asked for a bribe by those public officials during the previous 12 months				NO	To be determined during implementation	NO
SDG16.6.1	Primary government expenditures as a proportion of original approved budget, by sector (or by budget codes or similar)	YES				Ministry of Finance	YES
SDG16.6.2	Proportion of the population satisfied with their last experience of public services				NO	To be determined during implementation	YES

SDG16.7.1	Proportions of positions (by sex, age, persons with disabilities and population groups) in public institutions (national and local legislatures, public service, and judiciary) compared to national distributions				NO	To be determined during implementation	YES
SDG16.7.2	Proportion of population who believe decisionmaking is inclusive and responsive, by sex, age, disability and population group				NO	To be determined during implementation	NO
SDG16.10.1	Number of verified cases of killing, kidnapping, enforced disappearance, arbitrary detention and torture of journalists, associated media personnel, trade unionists and human rights advocates in the previous 12 months				YES	Ministry of Internal Affairs	YES
SDG16.b.1	Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law				YES	Ombudsman	YES
SDG17.6.2	Fixed Internet broadband subscriptions per 100 inhabitants, by speed			YES		Agency for Electronic	YES
SDG17.8.1	Proportion of individuals using the Internet	YES				Monstat	YES

Table P IV-3: Overview of sustainable development indicators from the UN list, Thematic area: Natural resources

Indicator code	Name of Indicator	Indicator followed by name and content ?	Is there an alternative for indicator by content?	Introduction of indicator is planned by 2018 ?	Introduction of indicator is planned in the period 2018-2024 ?	Institution responsible	UN methodology for indicator is developed ?
SDG2.4.1	Proportion of agricultural area under productive and sustainable agriculture			YES		Monstat	YES
SDG2.5.1	Number of plant and animal genetic resources for food and agriculture secured in either medium or long-term conservation facilities				YES	Biotechnical Faculty	NO
SDG2.5.2	Proportion of local breeds classified as being at risk, not-at-risk or at unknown level of risk of extinction				YES	Biotechnical Faculty	YES
SDG6.3.1	Proportion of wastewater safely treated				YES	MSDT	YES
SDG6.3.2	Proportion of bodies of water with good ambient water quality				YES	Ministry of Agriculture and Rural Development	YES
SDG6.4.2	Level of water stress: freshwater withdrawal as a proportion of available freshwater resources			YES		Ministry of Agriculture and Rural Development	YES

SDG6.5.1	Degree of integrated water resources management implementation (0-100)				YES	Ministry of Agriculture and Rural Development	YES
SDG6.6.1	Change in the extent of water-related ecosystems over time				YES	MSDT, Ministry of Agriculture and Rural Development	YES
SDG9.4.1	CO2 emission per unit of value added				YES	Environmental Protection Agency	YES
SDG11.3.1	Ratio of land consumption rate to population growth rate				YES	MSDT	NO
SDG11.6.2	Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)		YES			Environmental Protection Agency	YES
SDG12.2.1	Material footprint, material footprint per capita, and material footprint per GDP			YES		Monstat	YES
SDG12.2.2	Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP			YES		Monstat	YES
SDG12.3.1	Global food loss index				NO	Ministry of Agriculture and Rural Development	YES
SDG12.4.2	Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment		YES			Monstat	NO
SDG14.1.1	Index of coastal eutrophication and floating plastic debris density				YES	Environmental Protection Agency	YES

SDG14.3.1	Average marine acidity (pH) measured at agreed suite of representative sampling stations				YES	Environmental Protection Agency	NO
SDG14.4.1	Proportion of fish stocks within biologically sustainable levels			YES		Institute for Marine Biology	YES
SDG14.5.1	Coverage of protected areas in relation to marine areas				YES	Environmental Protection Agency	YES
SDG15.1.1	Forest area as a proportion of total land area		YES			Ministry of Agriculture and Rural Development	YES
SDG15.1.2	Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type		YES			Environmental Protection Agency	NO
SDG15.2.1	Progress towards sustainable forest management			YES		Ministry of Agriculture and Rural Development	YES
SDG15.3.1	Proportion of land that is degraded over total land area				YES	Ministry of Agriculture and Rural Development and MSDT – Environmental Protection Directorate. Biotechnical Faculty	NO
SDG15.4.1	Coverage by protected areas of important sites for mountain biodiversity			YES		Environmental Protection Agency	NO

SDG15.4.2	Mountain Green Cover Index				YES	Ministry of Agriculture and Rural Development	YES
SDG15.5.1	Red List Index				YES	Environmental Protection Agency	YES
SDG15.7.1	Proportion of traded wildlife that was poached or illicitly trafficked				YES	Customs Administration and Environmental Protection Agency.	YES
SDG15.9.1	Progress towards national targets established in accordance with Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011-2020				YES	MSDT	NO
SDG15.c.1	Proportion of traded wildlife that was poached or illicitly trafficked				YES	Custom Administration and Environmental Protection Agency	YES

Table P IV – : Overview of sustainable development indicators from the UN list, Thematic area: Economic resources

Indicator code	Name of indicator	Indicator followed by name and content ?	Is there an alternative for indicator by content?	Introduction of indicator is planned by 2018?	Introduction of indicator is planned in the period 2018-2024?	Institution responsible	UN methodology for indicators is developed ?
SDG1.5.2	Direct disaster economic loss in relation to global gross domestic product (GDP)				YES	Ministry of Finance	YES
SDG2.3.1	Volume of production per labour unit by classes of farming/ pastoral/forestry enterprise size		YES			Monstat	YES
SDG2.3.2	Average income of small-scale food producers, by sex and indigenous status				YES	Monstat	NO
SDG2.b.1	Producer Support Estimate		YES			Ministry of Finance	YES
SDG2.b.2	Agricultural export subsidies		YES			Ministry of Finance	NO
SDG2.c.1	Indicator of food price anomalies				YES	Monstat	YES
SDG6.4.1	Change in water-use efficiency over time			YES		Ministry of Agriculture and Rural Development	YES
SDG7.1.2	Proportion of population with primary reliance on clean fuels and technology				YES	Ministry of Economy	YES
SDG7.2.1	Renewable energy share in the total final energy consumption		YES			Monstat	YES
SDG7.3.1	Energy intensity measured in terms of primary energy and GDP		YES			Ministry of Economy	YES

SDG8.1.1	Annual growth rate of real GDP per capita	YES				Monstat	NO
SDG8.2.1	Annual growth rate of real GDP per employed person		YES			Monstat	YES
SDG8.4.1	Material footprint, material footprint per capita, and material footprint per GDP			YES		Monstat	YES
SDG8.4.2	Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP			YES		Monstat	YES
SDG8.9.1	Tourism direct GDP as a proportion of total GDP and in growth rate			YES		MSDT, Ministry of Finance	YES
SDG8.9.2	Number of jobs in tourism industries as a proportion of total jobs and growth rate of jobs, by sex			YES		MSDT	YES
SDG9.1.2	Passenger and freight volumes, by mode of transport		YES			Monstat	YES
SDG9.2.1	Manufacturing value added as a proportion of GDP and per capita	YES				Monstat	YES
SDG9.2.2	Manufacturing employment as a proportion of total employment	YES				Monstat	YES
SDG9.3.1	Proportion of small-scale industries in total industry value added		YES			Monstat	YES
SDG9.3.2	Proportion of small-scale industries with a loan or line of credit				YES	Ministry of Economy	YES

SDG9.5.1	Research and development expenditure as a proportion of GDP	YES				Monstat	YES
SDG9.5.2	Researchers (in full-time equivalent) per million inhabitants	YES				Ministry of Science	NO
SDG9.b.1	Proportion of medium and high-tech industry value added in total value added		YES			Monstat	YES
SDG10.a.1	Proportion of tariff lines applied to imports from least developed countries and developing countries with zero-tariff					Not relevant for Montenegro	NO
SDG11.5.2	Direct disaster economic loss in relation to global GDP, including disaster damage to critical infrastructure and disruption of basic services				YES	MIA (Governmental Commission for assessment of damages caused by elementary disasters)	YES
SDG11.6.1	Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities	YES				MSDT	YES
SDG12.5.1	National recycling rate, tons of material recycled	YES				Monstat	NO
SDG14.7.1	Sustainable fisheries as a percentage of GDP in small island developing States, least developed countries and all countries				YES	Institute for Marine Biology	NO

SDG17.1.1	Total government revenue as a proportion of GDP, by source	YES				Ministry of Finance	YES
SDG17.1.2	Proportion of domestic budget funded by domestic taxes	YES				Ministry of Finance	YES
SDG17.10.1	Worldwide weighted tariff-average				YES	Ministry of Finance, Tax Administration	YES
SDG17.11.1	Developing countries' and least developed countries' share of global exports				YES	Monstat	YES
SDG17.12.1	Average tariffs faced by developing countries, least developed countries and small island developing States				YES	Ministry of Finance, Taxes Administration	YES
SDG17.13.1	Macroeconomic Dashboard			YES		Ministry of Finance	NO

Table P IV – 5: Overview of sustainable development indicators from the UN list, Thematic area: Economic resources: Governance for sustainable development

Indicator code	Name of indicator	Indicator followed by name and content ?	Is there an alternative for indicator by content?	Introduction of indicator is planned by 2018?	Introduction of indicator is planned in the period 2018-2024?	Institution responsible	UN methodology for indicators is developed ?
SDG1.5.3	Number of countries with national and local disaster risk reduction strategies			YES		Ministry of Internal Affairs	NO
SDG5.1.1	Whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of sex				YES	Ministry for Human and Minority Right	YES
SDG5.6.2	Number of countries with laws and regulations that guarantee women aged 15-49 years access to sexual and reproductive health care, information and education				YES	Ministry of Health	YES
SDG5.a.2	Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control				YES	Ministry for Human and Minority Right	YES
SDG5.c.1	Proportion of countries with systems to track and make public allocations for gender equality and women's empowerment				YES	Ministry for Human and Minority Right	NO

SDG6.5.2	Proportion of transboundary basin area with an operational arrangement for water cooperation			YES		Ministry of Agriculture and Rural Development	YES
SDG6.b.1	Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management				YES	Ministry of Agriculture and Rural Development, MSDT, Ministry of Health, local governments and other competent organizations.	YES
SDG8.8.2	Increase in national compliance of labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status				YES	Ministry of Labour and Social Welfare	YES
SDG10.5.1	Financial Soundness Indicators				YES	Ministry of Finance	NO
SDG10.6.1	Proportion of members and voting rights of developing countries in international organizations	YES				Ministry of Foreign Affairs and European integrations	YES
SDG10.7.2	Number of countries that have implemented well-managed migration policies			YES		Ministry of Internal Affairs	YES
SDG11.3.2	Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically				YES	MSDT	NO

SDG11.a.1	Proportion of population living in cities that implement urban and regional development plans integrating population projections and resource needs, by size of city			YES		MSDT	YES
SDG11.b.1	Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030			YES		Ministry of Internal Affairs	YES
SDG11.b.2	Number of countries with national and local disaster risk reduction strategies			YES		Ministry of Internal Affairs	NO
SDG12.1.1	Number of countries with sustainable consumption and production (SCP) national action plans or SCP mainstreamed as a priority or a target into national policies			YES		MSDT	NO
SDG12.4.1	Number of parties to international multilateral environmental agreements on hazardous waste, and other chemicals that meet their commitments and obligations in transmitting information as required by each relevant agreement	YES				MSDT	NO
SDG12.6.1	Number of companies publishing sustainability reports				YES	Ministry of Finance	NO

SDG12.7.1	Number of countries implementing sustainable public procurement policies and action plans				YES	Public Procurement Administration	NO
SDG12.a.1	Amount of support to developing countries on research and development for sustainable consumption and production and environmentally sound technologies			YES		Ministry of Science, MSDT	NO
SDG12.b.1	Number of sustainable tourism strategies or policies and implemented action plans with agreed monitoring and evaluation tools	YES				MSDT	YES
SDG13.1.1	Number of countries with national and local disaster risk reduction strategies			YES		Ministry of Internal Affairs	YES
SDG13.2.1	Number of countries that have communicated the establishment or operationalization of an integrated policy/ strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)			YES		MSDT	NO

SDG13.3.1	Number of countries that have integrated mitigation, adaptation, impact reduction and early warning into primary, secondary and tertiary curricula				YES	MSDT	NO
SDG13.3.2	Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions			YES		MSDT	NO
SDG14.2.1	Proportion of national exclusive economic zones managed using ecosystem-based approaches	YES				Ministry of Transport and Maritime Affairs	YES
SDG14.6.1	Progress by countries in the degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing	YES				Ministry of Agriculture and Rural Development	YES
SDG14.b.1	Progress by countries in the degree of application of a legal/ regulatory/policy/ institutional framework which recognizes and protects access rights for small-scale fisheries	YES				Ministry of Agriculture and Rural Development, Institute for Marine Biology	YES

SDG14.c.1	Number of countries making progress in ratifying, accepting and implementing through legal, policy and institutional frameworks, ocean-related instruments that implement international law, as reflected in the United Nation Convention on the Law of the Sea, for the conservation and sustainable use of the oceans and their resources	YES				Ministry of Transport and Maritime Affairs	YES
SDG15.6.1	Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits				YES	Ministry of Agriculture and Rural Development	YES
SDG15.8.1	Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species				YES	MSDT	YES
SDG16.8.1	Proportion of members and voting rights of developing countries in international organizations	YES				Ministry of Foreign Affairs and European Integrations	YES
SDG16.10.2	Number of countries that adopt and implement constitutional, statutory and/or policy guarantees for public access to information				YES		YES

SDG16.a.1	Existence of independent national human rights institutions in compliance with the Paris Principles				YES		YES
SDG17.5.1	Number of countries that adopt and implement investment promotion regimes for least developed countries					Not relevant for Montenegro	NO
SDG17.6.1	Number of science and/or technology cooperation agreements and programmes between countries, by type of cooperation	YES				Ministry of Science	NO
SDG17.14.1	Number of countries with mechanisms in place to enhance policy coherence of sustainable development	YES				Ministry of Sustainable Development and Tourism	NO
SDG17.15.1	Extent of use of country-owned results frameworks and planning tools by providers of development cooperation					Currently not relevant for Montenegro	NO
SDG17.16.1	Number of countries reporting progress in multi-stakeholder development effectiveness monitoring frameworks that support the achievement of the sustainable development goals				YES	Ministry of Foreign Affairs and European Integrations, Ministry of Finance, MSDT	YES

SDG17.18.1	Proportion of sustainable development indicators produced at the national level with full disaggregation when relevant to the target, in accordance with the Fundamental Principles of Official Statistics			YES		MSDT, Monstat	YES
SDG17.18.2	Number of countries that have national statistical legislation that complies with the Fundamental Principles of Official Statistics	YES				MONSTAT	NO
SDG17.18.3	Number of countries with a national statistical plan that is fully funded and under implementation, by source of funding	YES				MONSTAT	NO
SDG17.19.2	Proportion of countries that (a) have conducted at least one population and housing census in the last 10 years; and (b) have achieved 100 per cent birth registration and 80 per cent death registration	YES				MONSTAT, Ministry of Internal Affairs	NO

Table P IV – 6: *Overview of sustainable development indicators from the UN list, Thematic area: Financing for sustainable development*

Indicator code	Name of indicator	Indicator followed by name and content ?	Is there an alternative for indicator by content?	Introduction of indicator is planned by 2018?	Introduction of indicator is planned in the period 2018-2024?	Institution responsible	UN methodology for indicators is developed ?
SDG1.a.1	Proportion of resources allocated by the government directly to poverty reduction programmes		YES			Ministry of Finance	NO
SDG1.a.2	Proportion of total government spending on essential services (education, health and social protection)		YES			Ministry of Finance	NO
SDG1.b.1	Proportion of government recurrent and capital spending to sectors that disproportionately benefit women, the poor and vulnerable groups				YES	Ministry of Finance	NO
SDG2.a.1	The agriculture orientation index for government expenditures	YES				Ministry of Finance	YES
SDG2.a.2	Total official flows (official development assistance plus other official flows) to the agriculture sector				YES	Ministry of Finance	NO
SDG3.b.2	Total net official development assistance to medical research and basic health sectors			YES		Ministry of Finance	YES

SDG4.b.1	Volume of official development assistance flows for scholarships by sector and type of study			YES		Ministry of Finance	YES
SDG6.a.1	Amount of water- and sanitation-related official development assistance that is part of a government-coordinated spending plan			YES		Ministry of Finance	YES
SDG7.a.1	Mobilized amount of United States dollars per year starting in 2020 accountable towards the \$100 billion commitment					Currently not relevant for Montenegro	NO
SDG7.b.1	Investments in energy efficiency as a percentage of GDP and the amount of foreign direct investment in financial transfer for infrastructure and technology to sustainable development services		YES			Ministry of Economy	NO
SDG8.a.1	Aid for Trade commitments and disbursements					Currently not relevant for Montenegro	YES
SDG8.b.1	Total government spending in social protection and employment programmes as a proportion of the national budgets and GDP		YES			Ministry of Finance	YES
SDG9.a.1	Total official international support (official development assistance plus other official flows) to infrastructure		YES			Monstat	YES
SDG10.b.1	Total resource flows for development, by recipient and donor countries and type of flow (e.g. official development assistance, foreign direct investment and other flows)				YES	Central Bank of Montenegro	NO

SDG10.c.1	Remittance costs as a proportion of the amount remitted				YES	Central Bank of Montenegro	YES
SDG11.4.1	Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed and World Heritage Centre designation), level of government (national, regional and local/municipal), type of expenditure (operating expenditure/investment) and type of private funding (donations in kind, private non-profit sector and sponsorship)	YES				Ministry of Finance, Ministry of Culture, MSDT	YES
SDG11.c.1	Proportion of financial support to the least developed countries that is allocated to the construction and retrofitting of sustainable, resilient and resource-efficient buildings utilizing local materials					Currently not relevant for Montenegro	YES
SDG12.c.1	Amount of fossil-fuel subsidies per unit of GDP (production and consumption) and as a proportion of total national expenditure on fossil fuels		YES			Ministry of Economy	NO
SDG13.a.1	Mobilized amount of United States dollars per year starting in 2020 accountable towards the \$100 billion commitment					Not relevant for Montenegro	NO

SDG13.b.1	Number of least developed countries and small island developing States that are receiving specialized support, and amount of support, including finance, technology and capacity-building, for mechanisms for raising capacities for effective climate change-related planning and management, including focusing on women, youth and local and marginalized communities					Not relevant for Montenegro	YES
SDG14.a.1	Proportion of total research budget allocated to research in the field of marine technology	YES				Ministry of Finance, Ministry of Science, Ministry of Transport and Maritime Affairs	NO
SDG15.a.1	Official development assistance and public expenditure on conservation and sustainable use of biodiversity and ecosystems			YES		Ministry of Finance	NO
SDG15.b.1	Official development assistance and public expenditure on conservation and sustainable use of biodiversity and ecosystems			YES		Ministry of Finance	YES
SDG17.2.1	Net official development assistance, total and to least developed countries, as a proportion of the Organization for Economic Cooperation and Development (OECD) Development Assistance Committee donors' gross national income (GNI)			YES		Ministry of Foreign Affairs and European integrations	YES
SDG17.3.1	Foreign direct investments (FDI), official development assistance and South-South Cooperation as a proportion of total domestic budget				YES	Central bank of Montenegro	NO

SDG17.3.2	Volume of remittances (in United States dollars) as a proportion of total GDP		YES			Central bank of Montenegro, Ministry of Finance	NO
SDG17.4.1	Debt service as a proportion of exports of goods and services				YES	Central bank of Montenegro	NO
SDG17.7.1	Total amount of approved funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies				YES	Ministry of Finance	NO
SDG17.9.1	Dollar value of financial and technical assistance (including through North-South, South-South and triangular cooperation) committed to developing countries	YES				Ministry of Finance, Ministry of Foreign Affairs and European integrations	YES
SDG17.17.1	Amount of United States dollars committed to public-private and civil society partnerships	YES				Ministry of Finance, Ministry of Internal Affairs	NO
SDG17.19.1	Dollar value of all resources made available to strengthen statistical capacity in developing countries	YES				Monstat, MSDT	NO

8.5. Annex V – Overview of available national sustainable development indicators

Table P V -1: Overview of available national sustainable development indicators, Thematic area: Human resources

Indicator code	Name of indicator	SDG indication for which is estimated that in a certain range can be related to the national indicator
NILJ01	MONSTAT, Number of live births	
NILJ02	MONSTAT, Number of deaths	
NILJ03	MONSTAT, Natality rate	
NILJ04	MONSTAT, Mortality rate	
NILJ05	MONSTAT, The rate of natural increase	
NILJ06	MONSTAT, Number of marriages	
NILJ07	MONSTAT, Number of divorces	
NILJ08	MONSTAT, Nuptiality rate	
NILJ09	MONSTAT, Divorciality rate	
NILJ10	MONSTAT, Movements of Montenegrin population by municipalities	
NILJ11	MONSTAT, Number of Montenegrin citizens who had moved into Montenegro	
NILJ12	MONSTAT, Number of Montenegrin citizens who had moved out of Montenegro	
NILJ13	MONSTAT, Number of foreign citizens who had moved into Montenegro	
NILJ14	MONSTAT, Average life expectancy	
NILJ15	MDG2.1, Rate of enrolment into pre-primary education and upbringing institutions (by sex)	SDG4.2.2
NILJ16	Allocations from the budget for pre-primary education (% BDP)	
NILJ17	MDG2.1.1, Enrolment rate for primary schools (by sex)	
NILJ18	MDG2.2.2, Rate of primary school completion (by sex)	
NILJ19	Expenditures from the budget for education (%GDP)	
NILJ20	Illiteracy rate among under-10-year-olds	SDG4.6.1
NILJ21	MDG2.3.1, Illiteracy rate	SDG4.6.1
NILJ22	Expenditures for research and development (% GDP)	
NILJ23	MDG4.1.1, MONSTAT, MONSTAT, Infant mortality rate (per 1000 live births)	SDG3.2.2
NILJ24	MDG4.1.2, Under-five mortality rate (per 1000 live births)	SDG3.2.1
NILJ25	MONSTAT, Masculinity rate in live births	
NILJ26	MONSTAT, Masculinity rate in deaths	
NILJ27	MONSTAT, Masculinity rate in deceased infants	
NILJ28	MDG4.2.1, Proportion of vaccinated infants against smallpox (%)	

NILJ29	MDG4.2.2, Proportion of vaccinated children against Hepatitis B and with BCG, DTP, OPV vaccines (%)	
NILJ30	MDG4.2.2a, BCG	SDG3.3.2
NILJ31	MDG4.2.2b, DTP	
NILJ32	MDG4.2.2c, OPV	
NILJ33	MDG4.2.2d, Hepatitis B	SDG3.3.4
NILJ34	MDG4.3.1, Number of casualties among children between 0 and 4 years old with lethal outcome in total population	
NILJ35	MDG5.1.1, Maternal mortality ratio in 100,000 live births	SDG3.1.1
NILJ36	MDG5.1.2, Proportion of births attended by skilled health personnel	SDG3.1.2
NILJ37	MDG6.1.1, Number of newly registered HIV cases (in a year) per 100,000 population	SDG3.3.1
NILJ38	MDG6.1.2, Number of newly registered HIV cases (in a year) per 100,000 population	SDG3.3.1
NILJ39	MDG6.1.3, Number of voluntary HIV tests per 1000 population	SDG3.3.1
NILJ40	MDG6.2.1, Number of newly registered tuberculosis cases per 100,000	SDG3.3.2
NILJ41	MDG6.2.2, Number of incidence of multi-resistant tuberculosis in total number of tuberculosis incidence	SDG3.3.2
NILJ42	MDG6.2.3, Death rate due to TBC per 100,000 population	SDG3.3.2
NILJ43	MDG6.3.1, Death rate due to cardiovascular diseases (per 100,000 population)	SDG3.4.1
NILJ44	MDG6.3.2, Death rate due to malignant tumours (per 100,000 population)	SDG3.4.1
NILJ45	MONSTAT, Number of medical doctors per 100,000 population	
NILJ46	MONSTAT, Occupancy of hospital beds	
NILJ47	MF, MH, Allocations from the budget for healthcare per capita (calculated by the World Health Organisation)	
NILJ48	WHO, Proportion of health expenditures in GDP (calculated by the World Health Organisation)	
NILJ49	WHO, Proportion of health expenditures in the budget (calculated by the World Health Organisation)	
NILJ50	WHO, Proportion of private household expenditures in total healthcare expenditures (calculated by the World Health Organisation)	
NILJ51	MH, Diabetes incidence rate	
NILJ52	MH, Diabetes prevalence rate	
NILJ53	MH, Tumour incidence rate	
NILJ54	MH, Tuomor prevalence rate	
NILJ55	MH, AKS incidence rate	
NILJ56	MH, AKS prevalence rate	
NILJ57	MH, CVB incidence rate	
NILJ58	MH, CVB prevalence rate	

Table P V -2: Overview of available national sustainable development indicators, Thematic area: Human resources

Indicator code	Name of indicator	SDG indication for which is estimated that in a certain range can be related to the national indicator
NID01	MRSS, Number of children placed in foster families	
NID02	MRSS, Proportion of processed cases compared to number of reported cases of forced marriages, classified by institutions (education, centres for social work, police, prosecution, judiciary), place/municipality, at annual level	SDG5.3.1
NID03	MRSS, Number of domestic violence victims who have been provided with general support services at annual level by 1) service type, 2) service provider, 3) municipality	SDG5.2.1
NID04	MRSS, Geographic distribution of specialised, easily accessible and safe support services for violence victims by: a) type of support service, b) municipality, c) service provider and d) financial source.	
NID05	MRSS, Number of violence victims accommodated in safe houses, compared to identified need for safe houses at annual level, classified by: a) all forms of violence, b) number of adults and number of children, c) children age and sex and d) municipality;	SDG5.2.1
NID06	MRSS, Proportion of allocations from annual and local budgets dedicated to undisturbed functioning of safe houses and accommodations for victims, compared to total budget for services in this area, at annual level	
NID07	MRSS, Number of (24/7) SOS phone lines at the state level which provide confidential and anonymous advising for violence victims and number of users of this service at annual level, classified by: a) number of adults and number of children, b) children age and sex, c) forms of violence, d) kinship of perpetrators and victims, and e) municipality;	
NID08	MRSS, Proportion of allocations from the state and local budgets dedicated to functioning of (24/7) SOS phone lines providing free advice to victims of all forms of violence, compared to total budget for services in this area, at annual level;	
NID09	MRSS, Number and regional distribution of centres providing specialised support to victims of rape or sexual violence (number of centres per number of inhabitants);	
NID10	MRSS, Number of victims of rape or sexual violence provided with specialised support compared to total number of reported cases of such violence compared to total number of reported cases of this violence at annual level.	SDG5.3.1, SDG5.2.2
NID11	MRSS, Number of cases in which competent bodies have pronounced protection and security measures to perpetrators	

NID12	MRSS, Number of cases in which competent bodies have found violation of protection and security measures	
NID13	MRSS, Number of cases filed for violation of protective measures	
NID14	MRSS, Number of offices/organisations providing free legal aid to victims of domestic violence	
NID15	MRSS, Number of persons provided with free legal aid	
NID16	MRSS, Number of children victims of domestic violence who used the support services (including psychological advising) compared to total number of identified children victims of domestic violence at annual level;	
NID17	MRSS, Number of court proceedings (criminal, offensive, and protective measures) where perpetrator was found guilty or was pronounced protective measures in relation to children victims of violence, compared to total number of court proceedings where perpetrators and/or victim had children at annual level;	
NID18	MRSS, Number and type of institutions (police, prosecutors, courts) where there is a specifically equipped room for interviews with victims of domestic violence customised needs of children and waiting rooms for victims witnesses separate from the accused ones.	
NID19	MONSTAT, MDG1.4.1, Unemployment rate (total and by gender)	SDG8.5.2
NID20	MONSTAT, MDG1.4.2, Long unemployment rate	SDG8.5.2
NID21	MONSTAT, MDG1.1.1, Poverty rate	SDG1.1.1, SDG1.2.1, SDG1.2.2
NID22	MONSTAT, MDG1.1.2, Poverty gap	SDG1.1.1, SDG1.2.1, SDG1.2.2
NID23	MONSTAT, MDG1.1.3, Poverty severity	SDG1.1.1, SDG1.2.1, SDG1.2.2
NID24	MONSTAT, MDG1.2.1, Gini coefficient	SDG4.5.1
NID25	MONSTAT, MDG1.2.2, Poorest quintile proportions (proportion of average consumption of 20% wealthiest and 20% poorest population),	SDG4.5.1
NID26	MRSS Number of juvenile beneficiaries of social protection, by sex	SDG1.3.1
NID27	MRSS Number of adult beneficiaries of social protection, by sex	SDG1.3.1
NID28	MONSTAT, MDG1.3.1, Poverty rate in the northern region	SDG1.1.1
NID29	MONSTAT, MDG1.3.2, Poverty rate in rural areas	SDG1.1.1
NID30	MVPEI, Total value of projects financed from EU funds for local and rural development	
NID31	MONSTAT, MDG3.1.1, Employment of women	SDG8.5.2
NID32	MONSTAT, MDG3.1.2, Unemployment of women	SDG8.5.2
NID33	MLJMP, MDG3.2.1, Proportion of positions held by women in the Parliament of Montenegro	SDG5.5.1
NID34	MLJMP, MDG3.2.2, Proportion of women ministers in the Government	SDG5.5.2
NID35	MLJMP, MDG3.2.3, Proportion of women mayors	SDG5.5.2

NID36	MLJMP, MDG3.2,4, Proportion of women deputies in local assemblies	SDG5.5.1
NID37	MLJMP, Number of enrolled Roma and Egyptian children in primary education in Montenegro	
NID38	MLJMP, Ethnical distance level in Montenegro	
NID39	MLJMP, Drop out proportion of Roma and Egyptian children in primary education in Montenegro	
NID40	MK, Proportion of contribution of private and formal cultural activities to gross domestic product	
NID41	MK, Percentage of persons dealing with occupations related to culture in total employment	
NID42	MK, Proportion of final costs per household spent on cultural activities, goods or services in total household costs	
NID43	MK, Proportion of teaching hours (%) dedicated to the promotion of multilingual culture compared to total number of teaching hours dedicated to languages (grades 7-8)	
NID44	MK, Proportion of teaching hours (%) dedicated to art compared to total number of teaching hours (grades 7-8)	
NID45	MK, Coherence and coverage index for technical and professional education and specialisation, and higher education in the area of culture	
NID46	MK, Framework development index for setting the standards for the protection and promotion of culture, cultural rights and cultural diversity	
NID47	MK, Development index for political and institutional frameworks for the protection and promotion of culture, cultural rights and cultural diversity	
NID48	MK, Distribution of selected infrastructure for culture compared to distribution of the country population in administrative sections immediately below the state level	
NID49	MK, Promotion index of participation of cultural workers and minorities in the creation and implementation of cultural policies, measures and programs pertaining to them	
NID50	MK, Proportion of population which participated in at least one cultural event over the past 12 months	
NID51	MK, Degree of tolerance in society towards people of different cultural origins	
NID52	MK, Degree of interpersonal trust	
NID53	MK, Printed, electronic and internet media freedom index	
NID54	MK, Proportion of allocations from the state budget intended for the protection of cultural resources, including UNESCO sites	SDG11.4.1
NID55	MK, Number of all protected cultural resources	
NID56	MK, Number of protected cultural resources from 20th century	
NID57	MK, Number of protected cultural resources presenting examples of rural architecture	
NID58	MK, Number of protected industrial facilities as cultural resources	
NID59	MK, Number of protected cultural landscapes	
NID60	MK, Number of protected non-tangible heritage	
NID61	MK, Number of staff in institutions responsible for the protection of cultural heritage and landscape	
NID62	MK, Multi-dimensional framework development index related to heritage sustainability	
NID63	ME, LSU development index	
NID64	ME, Competitiveness index (JLS)	
NID65	IRF, Total value of projects approved by IRF for the northern region	

Tabela P V – 3: *Overview of available national sustainable development indicators, Thematic area: Natural resources*

Indicator code	Name of indicator	SDG indication for which is estimated that in a certain range can be related to the national indicator
NIP01	B01, EPA, Species biodiversity	SDG15.a.1, SDG15.b.1
NIP02	B02, EPA, Representation and status of selected species	
NIP03	EPA, Red lists and species lists upon the introduction into the national biodiversity monitoring system, 2020	SDG15.5.1, SDG15.a.1, SDG15.b.1
NIP04	Indicators within Aichi 3, 5, 9, 11, 12 tasks upon the introduction into the national monitoring system	SDG15.9.1
NIP05	MDG 7.1.1, Proportion of areas protected for the reasons of biological diversity conservation (%)	SDG15.a.1, SDG15.b.1, SDG15.1.2, SDG15.4.1
NIP06	MDG 7.1.2, Proportion of marine ecosystems over total areas protected for the reason of biological diversity conservation (%)	SDG15.a.1, SDG15.b.1, SDG14.5.1
NIP07	MDG 7.1.3, Proportion of land covered by forests (%)	SDG15.a.1, SDG15.b.1
NIP08	B03, EPA, Dry trees in forests	
NIP09	B04, EPA, Number and dynamics of game population	SDG15.7.1, SDG15.c.1
NIP10	B05, EPA, Allochthonous and invasive species	SDG15.8.1
NIP11	B06, EPA, Forest fires	
NIP12	B07, EPA, Protected areas	SDG15.a.1, SDG15.b.1, SDG15.1.2, SDG15.4.1, SDG14.5.1, SDG 15.3.1, SDG 15.4.2, SDG 15.9.1
NIP13	V01, EPA, Nutrients in surface waters	
NIP14	V02, EPA, Biological Oxygen Demand	
NIP15	V03, EPA, Surface waters quality index	SDG 6.3.1, 6.3.2, SDG15.1.2, SDG 6.5.1, SDG 6.5.2
NIP16	MDG7.1.8, Degree of antropogenic impact to surface water quality (%)	
NIP17	V04, EPA, Drinking water quality	SDG6.1.1
NIP18	V05, EPA, Utilization of freshwater resources	SDG6.4.1, SDG6.4.2
NIP19	V06, EPA, Water losses	SDG 6.4.2, SDG 6.4.1, SDG 6.4.2

NIP20	MDG7.2.1, Losses on water supply network in urban areas (%)	
NIP21	MDG7.2.2, Proportion of connection to sewerage network in urban areas	SDG6.2.1, SDG 6.b.1
NIP22	MDG7.2.3, Proportion of treated water waters in relation to total water quantities in compliance with the national regulations (%)	SDG6.3.1, SDG 6.b.1
NIP23	V07, EPA, Access to public sewerage	SDG6.2.1, SDG6.3.1, SDG 6.b.1
NIP24	V08, EPA, Access to treatment plants	SDG6.3.1, SDG 6.b.1
NIP25	M01, EPA, Quality of marine bathing water	
NIP26	M02, EPA, Chlorophyll in transitional, coastal and marine waters	
NIP27	M03, EPA, Nutrients in transitional, coastal and marine waters	
NIP28	M04, EPA, Trophic index	SDG14.1.1
NIP29	M05, EPA, Oxygen saturation level in transitional, coastal and marine waters	
NIP30	M06, EPA Concentration of heavy metals in marine indicator species	
NIP31	MSDT, EcAp indicators upon the introduction into the national monitoring system by 2018	SDG14.4.1, SDG 14.3.1, SDG 14.7.1
NIP32	MSDT, MSFD indicators upon the introduction into the national monitoring system by 2019	SDG14.4.1, SDG 14.3.1, SDG 14.7.1
NIP33	Z01, EPA, Land erosion	SDG15.3.1
NIP34	Z02, EPA, Change in land use	SDG15.3.1
NIP35	VA01, EPA, Air quality in urban areas	SDG11.6.2, SDG3.9.1
NIP36	MDG 7.1.4, Number of measured concentrations of PM10 exceeding limit values and tolerance levels for the protection of human health in Podgorica, Pljevlja, Nikšić (coastal municipality)	
NIP37	VA02, EPA, Acidification gases emissions	
NIP38	VA03, EPA, Ozone precursor emissions	
NIP39	VA04, EPA, Emissions of primary particulate matters and secondary particulate matters precursors	
NIP40	KP01, EPA, Annual air temperatures	
NIP41	KP02, EPA, Annual precipitations	
NIP42	KP03, EPA, Consumption of ozone depleting substances	

NIP43	KP04, EPA, GHG emissions trends, MDG 7.1.5 Antropogenic GHG emissions expressed in t CO2 eq/inhabitant	SDG9.4.1, SDG13.2.1
NIP44	KP05, EPA, EPA Estimations of GHG emissions	
NIP45	MORT, Construction indicator (%)	SDG11.7.1
NIP46	MORT, Planned construction indicator (%)	SDG11.7.1
NIP47	MORT, Indicator of utilization of CL within GUR (%)	SDG11.7.1
NIP48	MORT, Indicator of utilization of CL outside the GUR (%)	SDG11.7.1
NIP49	MORT, Proportion of construction areas in relation to total coastal areas	
NIP50	MORT, Proportion of construction areas in the strip of 1km from the coastline (in width)	
NIP51	UNDAF, Share of GHG emission reduction at the annual level from total GHG emissions (%)	SDG9.4.1, SDG13.2.1
NIP52	UNDAF, Number of adopted and operational national action plans for different types of emergencies	SDG 1.5.3, SDG 11.b.2, SDG 11.b.1, SDG 11.b.1, SDG 11.5.1, SDG 13.1.2

Table P V-4: Overview of available national sustainable development indicators, Thematic area: Economic resources

Indicator code	Name of indicator	SDG indication for which is estimated that in a certain range can be related to the national indicator
NIE01	MONSTAT, Employment rate (LFS)	SDG8.2.1, SDG 8.3.1, SDG8.9.2, SDG9.2.2
NIE02	MRSS, Proportion of informal labor (research)	
NIE03	MF, Current account balance in GDP (deficit)	SDG17.13.1
NIE04	Coverage of imports by exports rate	SDG17.4.1, SDG17.13.1
NIE05	Net Foreign Direct Investments in GDP	SDG10.B.1, SDG17.13.1
NIE06	Average time for import and export customs clearance	
NIE07	State debt in GDP	SDG17.13.1
NIE08	Public debt in GDP	SDG17.13.1
NIE09	Costs of debt servicing as % of GDP	SDG17.13.1
NIE10	GDP/pc in parity of purchase power (EU=100)	SDG8.1.1
NIE11	ME, Indicative energy saving target, % in relation to total consumption (energy efficiency)	SDG7.3.1, SDG7.B.1
NIE12	E01, EPA, Primary energy consumption by energy-generating product	SDG7.2.1
NIE13	E02, EPA, Final energy consumption by sector	SDG7.2.1
NIE14	E03, EPA, Dependence on energy imports	SDG7.2.1
NIE15	E04, EPA, MDG7.1.6, Energy intensity	SDG7.2.1, SDG7.3.1
NIE16	E05, EPA, Primary energy consumption from RES	SDG7.1.2, SDG7.2.1, SDG7.b.1
NIE17	MDG 7.1.7, Proportion of RES over gross final energy consumption	SDG7.2.1, SDG7.b.1
NIE18	E06, EPA, Consumption of electricity from RES	SDG7.1.2, SDG7.2.1, SDG7.b.1
NIE19	S01, EPA, Passenger transport	SDG9.1.2
NIE20	S02, EPA, Cargo transport	SDG9.1.2
NIE21	S03, EPA, Average age of vehicle fleet	SDG9.1.2
NIE22	S04, EPA, Number of motor vehicles	SDG9.1.2
NIE23	T01, EPA, Tourist arrivals	SDG8.9.1
NIE24	T02, EPA, Tourist overnights	SDG8.9.1
NIE25	T03, EPA, Tourist intensity: Number of beds and utilization capacity rate	SDG8.9.1
NIE26	T04, EPA, Number of tourist at cruising voyages	SDG8.9.1
NIE27	T05, EPA, Number of visitors to national parks	SDG8.9.1
NIE28	MSDT, Proportion of primarily tourist capacities in total capacities	SDG8.9.1
NIE29	MSDT, Average annual occupation in primarily capacities (in %)	SDG8.9.1

NIE30	MSDT, Number of national, local and tourist business zones	
NIE31	MSDT, Annual growth rate for waste generation (in LSG with assessed increase of population)	SDG11.6.1
NIE32	MSDT, Quantity of generated industrial waste	SDG11.6.1
NIE33	MSDT, Collected waste in relation to total generated waste (quantity of treated and disposed municipal waste in relation to total quantity of generated municipal waste)	SDG11.6.1
NIE34	MSDT, Proportion of processed industrial waste	
NIE35	MSDT, Percentage, of collected waste material (glass, paper, metal and plastic) prepared for re-use and recycling	SDG12.5.1, SDG11.6.1
NIE36	MSDT, Percentage of non – hazardous construction waste prepared for re-use	
NIE37	MSDT, Quantity of secondary selected waste components	SDG12.5.1
NIE38	MSDT, Number of recycling centers and recycling yards	SDG12.5.1
NIE39	MSDT, Quantity of biodegradable municipal waste landfilled in relation to total quantity of biodegradable waste	SDG11.6.1
NIE40	MARD, MSDT, Number of family husbandries involved in the tourist offer	SDG2.b.1
NIE41	MARD, MSDT, Proportion of family husbandries included in tourist offer where carriers are younger than 40 (young farmers)	SDG2.b.1
NIE42	MARD, MSDT, Share of agricultural areas in agriculture and rural development special assistance programmes (green payments, organic agriculture protected areas, areas having special natural values etc.)	SDG2.b.1
NIE43	MF, Amount of funds for the support to implementation of rural development projects	SDG2.b.1
NIE44	MARD, MSDT, Number of developmental projects in rural areas initiated by local communities	
NIE45	MARD, MSDT, Number of husbandries which, through rural development programmes, modernized production	SDG2.b.1, SDG2.3.2
NIE46	MARD, MSDT, Number of households entitled to direct green payments	SDG2.b.1, SDG2.3.2
NIE47	P01, EPA, Consumption of mineral fertilizers	
NIE48	P02, EPA, Use of repellents	
NIE49	MARD, Number of certified agricultural and food products (certified quality system; food safety; origin labels; geographic labels; labels of guaranteed traditional specialties)	SDG2.b.1
NIE50	Chamber of Commerce of Montenegro, Number of agricultural products using the trade mark „Dobro iz Crne Gore“	
NIE51	MARD, Number of producers having the status of organic producer	SDG2.b.1
NIE52	P03, EPA, Areas under organic agriculture	
NIE53	R01, EPA, Estimation of fish stocks biomass and allowed quota for fishing	SDG14.4.1
NIE54	R02, EPA, Mariculture production	SDG14.7.1
NIE55	R03, EPA, Capacity of fishing fleet	SDG14.7.1
NIE56	MARD, Number of employees in the fishery sector	SDG14.7.1

NIE57	MARD, Participation of fishery support programe in the agro-budget	SDG14.7.1
NIE58	ME, Number of formed clusters in Montenegro and annual growth rate (number of new clusters)	
NIE59	IDF, Number of IDF realized credit lines for incentive of SMEs development which are support to green entrepreneurship	
NIE60	MS, MF, Investments into research and development (% GDP), goal 3% by 2025.	SDG9.5.1
NIE61	MS, Number of innovation-entrepreneurship centres	SDG9.5.2
NIE62	MS, Number of employees in the Scientific-Technological Park within the MNU space	SDG9.5.2
NIE623	MF, State assistance in GDP and participation of regional assistance in overall state assistance	
NIE64	PPA, Number of public procurement proceedings in which are included green criteria in public procurement proceeding documentation	SDG12.7.1
NIE65	PPA, Number of integrated basic green public procurement criteria in public procurement processes in one years	SDG12.7.1
NIE66	MS, Number of excellence centers in MNE and number of applications in international cooperation programs in the area of research and development	
NIE67	MS, ME, Number of initiated lifelong learning programs for increase of innovative potentials and education of managers	
NIE68	MONSTAT, Resource productivity	SDG 8.4.1, SDG 8.4.2

Table P V-5: Overview of available national sustainable development indicators, Thematic area: Governance for sustainable development

Indicator code	Name of indicator	SDG indikator za koji se procjenjuje da se u određenom opsegu može povezati sa nacionalnim indikatorom
NIU01	Satisfaction of public for participating in strategic documents and regulations decision-making and implementation	SDG 16.7.2, SDG 16.10.2
NIU02	Number of remarks on analysis and data availability about sustainable development	SDG 16.7.2, SDG 16.10.2
NIU03	Number of sectoral strategies and relevant action plans harmonized with the NSSD	SDG 17.14.1, SDG 17.16.1
NIU04	Number of received remarks from interested public that are accepted or that influenced on harmonization change of strategic documents and regulations	SDG 16.7.2, SDG 16.10.2
NIU05	Number of strategic documents and regulations for which, in the phase of drafting, were organized public consultations	SDG 16.7.2, SDG 16.10.2
NIU06	Number of programmes and projects realized by using and upgrading existing data(bases)	SDG 17.14.1, SDG 17.16.1
NIU07	Number of systematized jobs and the number of those who are really employed in professional-administrative jobs of the sustainable development policy	SDG17.14.1, SDG 17.16.1
NIU08	Proportion of environmental and climate regulations harmonized with the EU Acquis	SDG 16.10.2 SDG 17.7.1
NIU09	Number of contributions made by non-governmental organizations during public consultations about draft regulations and strategies at annual level	

8.6. Annex VI – Overview of selected composite indicators for cumulative monitoring of sustainable trends

8.6.1. Human Development Index (HDI)

Name of indicator	Human Development Index (HDI)																		
Thematic area	Human																		
Brief description	The Human Development Index represents a measure of achievements in three key dimensions of human development: a long and healthy life, knowledge (access to knowledge) and a decent standard of living. The HDI is the geometric mean of normalized indices for each of the three dimensions. The data source and methodologies could be find it the text that follows. Data Source: • “Life expectancy at birth”: UNDESA (2015); • “Mean years of schooling”: Barro i Lee (2014), UNESCO Institute for Statistics (2015) i Human Development Report (2015); • “Expected years of schooling”: UNESCO (2015); • “GNI per capita”: World Bank (2015), IMF (2015) and UNSD (2015). Methodology of two-step calculation First - Creating the all three dimension indices: <table><tr><th>Dimension</th><th>Indicator</th><th>Minimum</th><th>Maximum</th></tr><tr><td rowspan="2">Health</td><td>Life expectancy (years)</td><td>20</td><td>85</td></tr><tr><td>Expected years of schooling</td><td>0</td><td>18</td></tr><tr><td rowspan="2">Education</td><td>Mean years of schooling</td><td>0</td><td>15</td></tr><tr><td>Gross national income per capita (2011. PPP \$)</td><td>100</td><td>75.000</td></tr></table>	Dimension	Indicator	Minimum	Maximum	Health	Life expectancy (years)	20	85	Expected years of schooling	0	18	Education	Mean years of schooling	0	15	Gross national income per capita (2011. PPP \$)	100	75.000
Dimension	Indicator	Minimum	Maximum																
Health	Life expectancy (years)	20	85																
	Expected years of schooling	0	18																
Education	Mean years of schooling	0	15																
	Gross national income per capita (2011. PPP \$)	100	75.000																

	Dimension index = (actual value – minimum value) / (maximum value – minimum value) Second – Aggregating the dimensional indices to produce the HDI $HDI = (INDEX_{health} * INDEX_{education} * INDEX_{income})^{1/3}$ Data is available for 188 countries
Unit of measure / score	Index value ranges from 0 to 1, where 0 means the minimal level of human development, while 1 means the highest level of human development. Very high human development represents the result of 0,800 and above, while the result from 0,700 to 0,799 represents high human development. The result between 0,550 to 0,699 represents medium human development, while the low level of human development is the value below 0,550.
Frequency of Update	HDI results have been calculated for 1990, 2000, and annually since 2010. 2005 is the first year when data for Montenegro is available.
Results for MNE	HDI for Montenegro is 0.802 (In 2014 Montenegro was ranked 49 out of 188 countries). In the period between 2005 and 2014, Montenegro's HDI value increased from 0.750 to 0.802, i.e. +7% or an average annual increase of about 0.75%. This result for the first time ranks Montenegro among countries with very high human development. But, it should be noted that the result of 0.802 is below the average for countries in the very high human development.
Result Implications	In the period between 1980 and 2014, Montenegro's life expectancy at birth increased by 3.1 years, mean years of schooling increased by 0.7 years and expected years of schooling increased by 2.1 years. Montenegro's GNI per capita increased by about 41.5 % between 2000 and 2014. Montenegro, as a country with very high human development has high Ecological Footprints per capita, which is consistent with global trends.
Institution responsible	UN Development Programme (UNDP) The institution is available on: http://hdr.undp.org/en/contact
Website	http://hdr.undp.org/en/content/human-development-index-hdi
Relevant SDGs Goal & Target	3.1, 3.2, 3.6, 3.9, 4.1, 4.3, 8.1, 8.9, 10.1
Related SDGs Indicator	No.
Name of Indicator	Social Progress Index, SPI
Thematic Area	Social resources

8.6.2. Social Progress Index (SPI)

Brief description	The Social Progress Index measures overall social progress divided into three dimensions, where each of them is divided into four components: - 1) Basic Human Needs (nutrition and basic medical care, water and sanitation, shelter and personal safety), 2) Foundations of Wellbeing (access to information and communications, access to basic knowledge, health and wellness and ecosystem sustainability), and 3) Opportunity (personal rights, personal freedom and choice, tolerance and inclusion and access to advanced education). 
Unit of measure / score	SPI scores at three levels (overall, dimensions, and component) on a 0-100 scale, with 0 corresponding to the lowest level of progress and 100 to the highest. This scale is determined by identifying the best and worst absolute global performance on each indicator recorded by any country since 2004, and using these performance levels to set the maximum (100) and minimum (0) bounds.
Frequency of update	SPI was first released in 2014 after a beta version was published in 2013. The 2015 version has scores for 135 countries for one year. Going forward, frequency of update should ideally be on an annual basis.
Result Implications	 Considering Basic Human Needs Dimension, Montenegro performs best on Nutrition and Basic Medical Care and has most opportunity to improve on the Shelter component. In the Foundations of Wellbeing Dimension, Montenegro scores highest on Access to Basic Knowledge but lags on the Health and Wellness component. In the Opportunity Dimension, Montenegro is strongest on Personal Rights and has the most room to improve on Personal Freedom and Choice. Social Progress Imperative, the agency responsible for this indicator, is looking to build a Social Progress Network in Montenegro in 2016. If the attempt is successful, it is necessary to consider a possibility of EU-SILC (The European Union Statistics on Income and Living Conditions) data usage in order to pilot SPI in Montenegro. Additional details on Montenegro results are available at: http://www.socialprogressimperative.org/en/data/spi/countries/MNE

Result Implications	In the Basic Human Needs dimension, Montenegro is above average for nutrition and basic medical care and water and sanitation, but below average for personal safety (especially level of violent crime and perceived criminality) and in Shelter (especially in quality of electricity supply and availability of affordable housing). In the Foundations of Wellbeing dimension, Montenegro is above average in access to basic knowledge and access to information and communications, but below average in ecosystem sustainability and health and wellness. In particular, there is room for growth in ecosystem sustainability, biodiversity and habitat, and greenhouse gas emissions. Additionally, indicators are far below average for air pollution-related deaths, deaths from non-communicable diseases and suicide rates. In the Opportunity dimension, Montenegro shows the most room for improvement and opportunity for policy change. Personal rights, especially freedom of speech and private property rights are low. Other indicators with room for significant improvement include private property rights, globally ranked universities, tolerance and inclusion, discrimination and violence against minorities, religious tolerance, and tolerance for LGBT and other freedoms over life choices. Social Progress Imperative.
Responsible Agency	The institution is available on: http://www.socialprogressimperative.org/contact
Website	http://www.socialprogressimperative.org/
Relevant SDGs Goal & Target	1.4, 2.1, 3.1, 3.2, 3.3, 3.6, 3.9, 4.1, 4.3, 4.5, 4.6, 5.3, 5.b, 6.1, 6.2, 6.3, 10.2, 11.1, 12, 15.5, 16.1, 16.5, 16.10, 16.a
Related SDGs Indicator	No.

8.6.3. Gender Inequality Index (GII)

Name of Indicator	Gender Inequality Index, GII																																																																						
Thematic Area	Social resources																																																																						
Brief description	GII shows the loss in human development due to inequality between female and male achievements in the three GII dimensions - 1) reproductive health (measured by maternal mortality ratio and adolescent birth rates), 2) empowerment (measured by proportion of parliamentary seats occupied by females, and proportion of adult females and males aged 25 years and older with at least some secondary education and 3) economic status (expressed as labor market participation and measured by labor force participation rate of female and male populations aged 15 years and older). Data sources: • Maternal mortality ratio (MMR): UN Maternal Mortality Estimation Group (2014). • Adolescent birth rate (ABR): UNDESA (2013). • Share of parliamentary seats held by each sex (PR): IPU (2015). • Attainment at secondary and higher education (SE) levels: UNESCO Institute for Statistics (2015) and Barro and Lee (2014). • Labour market participation rate (LFPR): ILO (2015).																																																																						
Unit of measure / score	Index ranges from 0 to 1, where 0 means women and men fare equally and 1 means that one gender fares as poorly as possible in all measured dimensions.																																																																						
Frequency of Update	Data is available for 155 countries. GII results have been calculated for 2000, 2005, 2010, and annually since 2013. 2014 is the first year data is available for Montenegro																																																																						
Results for MNE	0.171 (rank 37 out of 155 countries in the 2014) In Montenegro, 17.3 percent of parliamentary seats are held by women, and 84.2 percent of adult women have reached at least a secondary level of education compared to 94.7 percent of their male counterparts. For every 100,000 live births, 7 women die from pregnancy related causes. The adolescent birth rate is 15.2 births per 1,000 women of ages 15-19. Female participation in the labor market is 43.0 percent compared to 57.3 for men. <table><caption>Table E: Montenegro's GII for 2014 relative to selected countries and groups</caption><thead><tr><th></th><th>GII value</th><th>GII Rank</th><th>Maternal mortality ratio</th><th>Adolescent birth rate</th><th>Female seats in parliament (%)</th><th colspan="2">Population with at least some secondary education (%)</th><th colspan="2">Labour force participation rate (%)</th></tr><tr><th></th><th></th><th></th><th></th><th></th><th></th><th>Female</th><th>Male</th><th>Female</th><th>Male</th></tr></thead><tbody><tr><td>Montenegro</td><td>0.171</td><td>37</td><td>7</td><td>15.2</td><td>17.3</td><td>84.2</td><td>94.7</td><td>43.0</td><td>57.3</td></tr><tr><td>Latvia</td><td>0.167</td><td>36</td><td>13</td><td>13.5</td><td>18.0</td><td>98.9</td><td>99.0</td><td>54.9</td><td>67.6</td></tr><tr><td>Lithuania</td><td>0.125</td><td>23</td><td>11</td><td>10.6</td><td>23.4</td><td>89.1</td><td>94.3</td><td>55.8</td><td>67.3</td></tr><tr><td>Europe and Central Asia</td><td>0.300</td><td>—</td><td>28</td><td>30.8</td><td>19.0</td><td>70.8</td><td>80.6</td><td>45.6</td><td>70.0</td></tr><tr><td>Very high HDI</td><td>0.199</td><td>—</td><td>18</td><td>19.0</td><td>26.5</td><td>86.2</td><td>87.9</td><td>52.1</td><td>68.7</td></tr></tbody></table> Maternal mortality ratio is expressed in number of deaths per 100,000 live births and adolescent birth rate is expressed in number of births per 1,000 women ages 15-19.		GII value	GII Rank	Maternal mortality ratio	Adolescent birth rate	Female seats in parliament (%)	Population with at least some secondary education (%)		Labour force participation rate (%)								Female	Male	Female	Male	Montenegro	0.171	37	7	15.2	17.3	84.2	94.7	43.0	57.3	Latvia	0.167	36	13	13.5	18.0	98.9	99.0	54.9	67.6	Lithuania	0.125	23	11	10.6	23.4	89.1	94.3	55.8	67.3	Europe and Central Asia	0.300	—	28	30.8	19.0	70.8	80.6	45.6	70.0	Very high HDI	0.199	—	18	19.0	26.5	86.2	87.9	52.1	68.7
	GII value	GII Rank	Maternal mortality ratio	Adolescent birth rate	Female seats in parliament (%)	Population with at least some secondary education (%)		Labour force participation rate (%)																																																															
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Lithuania	0.125	23	11	10.6	23.4	89.1	94.3	55.8	67.3																																																														
Europe and Central Asia	0.300	—	28	30.8	19.0	70.8	80.6	45.6	70.0																																																														
Very high HDI	0.199	—	18	19.0	26.5	86.2	87.9	52.1	68.7																																																														
Result Implications	GII results shed light on the inequality in achievements between women and men in a country. Analysis of this indicator over time is indicating whether gender equality is increasing or decreasing as the country develops. According to this index, development opportunities are lost when gender inequality increases. Informal Employment and Grey Economy Analysis in Montenegro (2014) indicated that women are less engaged in informal activities than men; close to 70% of women are formally employed while about 65% of men are formally employed.																																																																						

Responsible Agency	United Nations Development Programme (UNDP) The institution is available on: http://hdr.undp.org/en/contact
Website	http://hdr.undp.org/en/content/gender-inequality-index
Relevant SDGs Goal & Target	3.1, 4.5, 5.1, 5.4, 5.5, 5.a, 5.c, 8.5
Related SDGs Indicator	No.

8.6.4. Ecological Footprint (EF)

Name of Indicator	Ecological Footprint, EF
Thematic Area	Natural resources
Brief description	The Ecological Footprint tracks human demand on nature resources and services and compares with ecosystem resources and services offer. Demand is measured in terms of biologically productive areas a population uses for producing all the resources it consumes and absorbing all its waste, using prevailing technology for resource management. This demand is compared to nature's supply, called biocapacity. Biocapacity, measured in surface area, represents the regenerative capacity of nature.
Unit of measure / score	Global hectares (gha): a hectare-equivalent unit representing the capacity of a hectare of land with world-average productivity (across all croplands, grazing lands, forests and fishing grounds on the planet) to provide ecosystem services that people demand
Frequency of Update	Ecological Footprint and biocapacity for approximately 160 countries are calculated annually, although results come typically with a four years delay. Current results, published in 2016, cover the period 1961-2012. Results for Montenegro are available for the period 2006 - 2015.
Results for MNE	During the period 2006-2015, Montenegro's Ecological Footprint increased for 45% from 2.7 to 3.9 gha per person, while its biocapacity remained almost constant (shifting from 2.70 to 2.67 gha per person). In 2015, Montenegro was characterized by an ecological deficit as its biocapacity was able to satisfy around 70% of the overall demand for resources and services of its residents.

Result Implications	Real value of this indicator is its capability to indicate the balance between concrete human activities, i.e. the fact that offer possibility for comparison of human demand on nature resources and services of natural ecosystems and the offer of such resources and services from the natural ecosystems. An increase in a nation's Ecological Footprint stands for an increase in humanity's demand on ecological resources and service, which in turn equates to increased pressure on ecosystems and a greater risk of biodiversity loss. The main aim of the Ecological Footprint is to promote recognition of ecological limits which should help safeguard the ecosystems' viability.
Responsible Agency	Global Footprint Network Contact person: Alessandro Galli (e-mail: alessandro.galli@footprintnetwork.org or info@footprintnetwork.org)
Web site	www.footprintnetwork.org
Related SDGs Goal & Target	12.2 and 8.4 (when used as ratio Ecological Footprint and GDP)
Related SDGs Indicator	No.

8.6.5. (Domestic Material Consumption (DMC) and Resource Productivity (RP))

Name of Indicator	Domestic Material Consumption (DMC) and Resource Productivity (RP)
Thematic Area	Natural resources Economic resources
Brief description	DMC measures the total weight of materials (biomass, minerals, and fossil fuels) directly used in a country. When GDP divides with absolute amount of DMC, provides the country's resource productivity (RP), which represents a measure of the amount of value-added associated with a unit of domestic material consumption.
Unit of measure / score	Metric tons (for DMC) and EUR/kg (for RP)
Frequency of Update	Usually annually
Results for MNE	DMC was 8.724.634 tons in 2013 (14,1 tons per capita), and RP 0,4 EUR/kg in 2013.
Result Implications	DMC in Montenegro has been on a downward trend since a peak in 2008 while Resource productivity has been steadily improving in the same period. Montenegro's per capita DMC is higher than the EU average and its resource productivity is lower. The DMC and RP can help to track the impact of policies on aggregate consumption at the level of the country or of smaller territorial units if the data is available. A target for DMC of around 8 and 10 tons per capita is often used as a benchmark in discussions of sustainable consumption. To achieve this DMC level, policies are required to examine key supply chains to reduce waste and improve efficiency in the use of raw resources.

Responsible Agency	Several bodies calculate DMC and RP, including Eurostat, UNDP and OECD. Results for Montenegro are produced by UNDP office in Montenegro.
Web site	N/A
Relevant SDGs	8.4; 12.2
Relevant SDGs Indicator	SDG8.4.2; SDG12.2.2

8.6.6. Land Consumption (LC)

Name of Indicator	Land Consumption, (LC)
Thematic Area	Natural resources
Brief description	Land Consumption measures the sustainability trend of land consumption as a non-renewable resource particularly exposed to anthropogenic pressures. There are four indicators: 1) Lot coverage indicator (%), 2) Planned lot coverage indicator (%), 3) Building area consumption indicator within GTPS (%) and 4) Building area consumption indicator outside GTPS (%) These indicators support local spatial plans that have been developed by the Ministry of Sustainable Development and Tourism with support of the World Bank. Named indicators are adapted for costal municipalities, for which there are an additional five coastal-specific indicators: 1) share of building areas in the total surface area of coastal municipalities, 2) share of building areas within a 1 km wide zone from the coastline, 3) Lot coverage or land consumption of building areas, 4) the number of new building areas separated from existing areas established through SPSPCZ and its implementation, 5) surface areas of conflict zones which represent non-constructed building areas in high vulnerability zones, 6) the number of new building areas (separated from existing ones, established through SPSPCA and its implementation) in high vulnerability zones, 7) lot coverage of the coastline, 8) share of coastal setback established through SPSPCZ, 9) lot coverage of enlarged coastal setbacks. The nine indicators were developed in the scope of the Coastal Area Management Programme of Montenegro (CAMP MN) for the purpose of monitoring the part of measures defined in the National Strategy for Integrated Coastal Zone Management, and for development of the Spatial Plan for the Coastal Zone of Montenegro. They give both qualitative and quantitative expression of the state and trends in the coastal area. Methodology, calculation and explanation of this group of indicators have been done by PAP/RCA (UNEP/MAP) in cooperation with the Ministry of Sustainable Development and Tourism.

Unit of measure / score	Each indicator within the LC cumulative indicator has specially defined targets based on proportion of total surface area. The focus of these indicators is regulation of excessive land consumption, optimization of land use by minimizing conflicts of use and regulation of building in the narrow coastal area – so called coastal setback.																							
Frequency of Update	Data are updated every 2-3 years.																							
Results for MNE	<table><tr><th>KEY INDICATORS</th><th>INITIAL STATUS</th><th>SPSPCZ 2015</th><th>SPSPCZ 2030</th></tr><tr><td>1. Share of building areas in the total surface area of coastal municipalities</td><td>15.5% (synthesis map of building areas according to the status of existing planning documents from 2013)</td><td>9%</td><td>10%</td></tr><tr><td>2. Share of building areas within a 1 km wide zone from the coastline</td><td>46.3% (synthesis map of building areas according to the status of existing planning documents from 2013)</td><td>35%</td><td>35%</td></tr><tr><td>3. Lot coverage or land consumption of building areas</td><td>18.5% (synthesis map of building areas, building coverage according to the orthophotograph from 2011)</td><td>30%</td><td>50%</td></tr><tr><td>4. The number of new building areas separated from existing areas established through SPSPCA and its implementation</td><td>Synthesis map of building areas according to the status as established in existing planning documents from 2013</td><td>According to the land use plan</td><td>According to future changes in SPSPCZ and SUPs (Spatial-urban development plans)</td></tr></table>				KEY INDICATORS	INITIAL STATUS	SPSPCZ 2015	SPSPCZ 2030	1. Share of building areas in the total surface area of coastal municipalities	15.5% (synthesis map of building areas according to the status of existing planning documents from 2013)	9%	10%	2. Share of building areas within a 1 km wide zone from the coastline	46.3% (synthesis map of building areas according to the status of existing planning documents from 2013)	35%	35%	3. Lot coverage or land consumption of building areas	18.5% (synthesis map of building areas, building coverage according to the orthophotograph from 2011)	30%	50%	4. The number of new building areas separated from existing areas established through SPSPCA and its implementation	Synthesis map of building areas according to the status as established in existing planning documents from 2013	According to the land use plan	According to future changes in SPSPCZ and SUPs (Spatial-urban development plans)
	KEY INDICATORS	INITIAL STATUS	SPSPCZ 2015	SPSPCZ 2030																				
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4. The number of new building areas separated from existing areas established through SPSPCA and its implementation	Synthesis map of building areas according to the status as established in existing planning documents from 2013	According to the land use plan	According to future changes in SPSPCZ and SUPs (Spatial-urban development plans)																					

Result Implications	The “Measuring Sprawl 2014” study conducted by Smart Growth America, researchers the use of four primary factors. The first is the density in its broadest sense. The density parameters are obtained by monitoring six basic factors: total population density, percentage of population living in small-density suburban residential areas, percentage of population living in medium to high population density areas, population density within urban zones and employment density in a given area. The second parameter is related to the quantification of more than one purpose or function integrated in a single space - land use mix. This parameter measures the combination of several factors, such as the balance of employment compared to the overall population, combination of several types of businesses inside a particular spatial coverage, walking distance to the office etc. The third parameter, centralization of activities, is referred to the ratio of population to business activities in a particular area. The fourth parameter includes so-called accessibility of the street network - roads. The accessibility is measured by the average length of city blocks, the average size of city blocks, the percentage of blocks that can be treated as urban by their dimensions, the density of street intersections, the percentage of junctions with two or more intersections etc.
Institution responsible	PAP/RAC (Priority Actions Programme Regional Activity Center of the UNEP/MAP)
Website	http://www.pap-thecoastcentre.org/
Relevant SDGs Goal & Target	11, 14
Relevant SDGs Indicator	No.

8.6.7. Genuine Progress Indicator (GPI)

Name of Indicator	Genuine Progress Indicator (GPI)
Thematic Area	Economic resources
Brief description	GPI measures economic and social progress. It was developed in 1995 as an alternative to GDP and is built on its precursor, the Index of Sustainable Economic Welfare (ISEW). The GPI represents one of the first alternatives to GDP to be validated by the scientific community and used regularly by governments and NGOs across the world. GPI can help countries to shift their economic policy towards sustainability. The GPI starts with the same personal consumption data that the GDP is based on, but also considers several additional dimensions such as income distribution, the value of household and volunteer work, benefits of free time, life of permanent resources and public infrastructure, dependence on foreign funds and negative aspects such as crime, pollution, degradation and depletion of resources, as well as negative effects that existing production and existing incomes have on resources that enable creation of income.
Unit of measure / score	The GPI, as well as GDP, is expressed in monetary terms (money, therefore the two could be compared at the same scale. GPI as a basis takes the country's GDP and makes the additions and subtractions described above.
Frequency of Update	Frequency of update is data-dependent, but would be ideally if updated on an annual basis. Currently there is no independent organization systematically calculating GPI for world countries, however, results are available for about 10 countries (including USA, Canada, Finland, Italy and Chile).
Results for MNE	The GPI has never been calculated for Montenegro. ISEW has also never been calculated, but could represent an alternative to GPI should data availability be limited, given that it includes a lower number of parameters. Realization of Pilot project in Montenegro is proposed in order to determine the first assesment and its consequences.
Result Implications	The GPI is best interpreted by comparison with GDP. If GDP increases and that does not take to the GPI increase (or in exceptional cases takes to GPI decrease), we have a situation where economic growth is not translating into increased well-being for the population. Different elements that are taken into account by the GPI may serve as guides for the introduction of policies that can take to the increased well-being for the population.
Institution responsible	There is no custodian agency for measuring the GPI method. Country applications have generally been carried out by academics, statistical offices, or independent consultants. No UN agency has used it yet..
Website	n/a. Further details on this indicator can be found in the work of Robert Costanza and Ida Kubiszewski.
Relevant SDGs Goal & Target	1b; 3.7; 3.8; 3.9; 4.3; 7.2; 8.1; 9.1; 10.1; 10.4; 12.2; 12.4; 13.2; 14.1; 15.1; 15.2; 15.3; 15.5; 16.1; 16.4;
Relevant SDGs Indicator	No.

8.6.8. Environmental Democracy Index
(EDI)

Name of Indicator	Environmental Democracy Index, EDI
Thematic Area	Governance Social resources
Brief description	The EDI measures three key elements of environmental democracy: transparency, participation and justice. The EDI provides a comprehensive picture of a country's citizen ability to freely access information around environmental impacts, participate in decision-making process, and demand enforcement of environmental laws or compensation for damage. The EDI assessment is limited to national-level laws and regulations, thus does not assess law and regulation enacted at the sub-national level (regional, municipal, local....) The indicator is scientifically sound and consists of 75 legal indicators developed under 23 of the UNEP Bali Guidelines on Principle 10, which are concerned with the development and implementation of laws, constitutions, regulations and other legally binding, enforceable rules at the national level. These 75 indicators are aggregated into a single value (score), and the scoring of the various parameters has been decided in consultation with lawyers and the civil society. The legal indicators (and their aggregate score) are complemented by 24 supplemental practice indicators, which constitute a supplemental scoring system, assessing the degree to which environmental democracy is being implemented in practice.
Unit of measure / score	EDI score ranges from 0 to 3. A result of 0 indicates that the law limits some aspect of procedural rights, while a score of 3 that the respective provision meets accepted good practice. The world-average EDI value is 1.42 (37 countries have a better-than-average score and 33 countries have a worse-than-average score). The practice indicators are scored qualitatively, using the following scale: "Yes" (practice is observed in full), "Limited" (practice is observed irregularly or partially) and "No" (no observation of practice).It is important to notice that results of the practice indicators do not affect the legal indicators' score.
Frequency of Update	The EDI is currently calculated for 70 countries, for one year and in the future the EDI will be calculated bi-annually to benchmark national progress over time. Methodological revisions are also envisioned to expand the assessment of practice, or implementation of environmental democracy laws..
Results for MNE	The EDI research has not been done so far for Montenegro.
Result Implications: Science & Policy	A pilot project is recommended to determine a first assessment of Montenegro's EDI.

Responsible Agency	The Access Initiative (TAI) i World Resources Institute (WRI) Contact persons: Jesse Worker (email: jworker@wri.org) and Lalanath de Silva (email: Idesilva@wri.org) UNEP's Principle 10 Bali Guidelines represent the international standard against which national laws are assessed within the EDI. However, this indicator has not yet been officially used by UN bodies.
Website	http://www.environmentaldemocracyindex.org/
Related SDGs Goal & Target	16.3; 16.10; 16.6; 16.7
Related SDGs Indicator	No.

8.6.9. Environment Performance Index (EPI)

Name of Indicator	Environment Performance Index (EPI)														
Thematic Area	Governance for sustainable development														
Brief description	The EPI measures countries' performance in two areas that have high-priority on the environment - protection of human health from environmental negative impacts (Environmental health) and protection of ecosystems (Ecosystem vitality). These two objectives are performed in nine issue areas: <table border="1"> <tbody> <tr> <td>Environmental health</td><td>Ecosystem vitality</td></tr> <tr> <td>Health impacts</td><td>Water resources</td></tr> <tr> <td>Air quality</td><td>Agriculture</td></tr> <tr> <td>Water and sanitation</td><td>Forests</td></tr> <tr> <td></td><td>Fisheries</td></tr> <tr> <td></td><td>Biodiversity and habitat</td></tr> <tr> <td></td><td>Climate and energy</td></tr> </tbody> </table> The EPI allows countries to examine and compare their performance over time. It also provides policy-makers with a clear view of policy effectiveness in achieving environmental performance.	Environmental health	Ecosystem vitality	Health impacts	Water resources	Air quality	Agriculture	Water and sanitation	Forests		Fisheries		Biodiversity and habitat		Climate and energy
Environmental health	Ecosystem vitality														
Health impacts	Water resources														
Air quality	Agriculture														
Water and sanitation	Forests														
	Fisheries														
	Biodiversity and habitat														
	Climate and energy														
Unit of measure / score	Index value ranges from 0 to 100, with 100 representing the highest environmental performance and 0 the worst.														
Frequency of Update	Annual.														
Results for MNE	Montenegro has an EPI of 78.89 in 2016, placing it 47 th out of 180 countries. This score has improved considerably over the past 10 years, as it has increased from 54.23 in 2006 to 55.52 in 2012, up to 78.89 in 2016.														

Result Implications: Science & Policy	Thanks to the results achieved, Montenegro's score places it in the top third of countries worldwide in terms of environmental performance. However, Montenegro has the lowest EPI score among European countries. Montenegro scores highest in forests, health impacts, and water and sanitation, while lowest scores are obtained in the areas of biodiversity and habitat, fisheries, and climate and energy. It is important to emphasize that the low-scoring areas are also those that have seen no improvement in the past ten years suggesting that policies are lacking or have limited effectiveness.
Responsible Agency	Yale University
Website	Contact form is available at http://epi.yale.edu/contact-us www.epi.yale.edu
Related SDGs Goal & Target	3.9; 6; 7; 11; 12.4; 13; 14.1; 15
Related SDGs Indicator	No.



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