



NATIONAL STRATEGY OF SUSTAINABLE DEVELOPMENT OF MONTENEGRO



GOVERNMENT OF THE REPUBLIC OF MONTENEGRO
MINISTRY OF TOURISM AND
ENVIRONMENTAL PROTECTION

NATIONAL STRATEGY OF SUSTAINABLE DEVELOPMENT OF MONTENEGRO



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PREFACE

The concept of sustainable development means balancing of economic, social and environmental requirements in order to ensure “the needs of the existing generation are met without compromising the ability of future generations to meet their own needs”. Since 1987, when this definition appeared in the Report of the World Commission for Environment and Development chaired by Ms. Gro Harlem Brundtland, until today, sustainable development became one of the key elements in the formulation and implementation of development policies in the world.

Operationalisation of the concept and its practical implementation are the result of theoretical as well as political endeavours aiming to ensure long term development of the human society and environmental protection. In this process, key events and the driving force were the World Summits in Rio and Johannesburg, as well as the adoption of the UN Millennium Declaration in September 2000. From the UN level (and the level of the UN Commission for Sustainable Development) and numerous multilateral and international institutions and organisations, through the governments of individual countries and the European Union, all the way to the civil sector and local governments, the implementation of the concept of sustainable development represents an issue that millions of people around the world are working on.



LIST OF ABBREVIATIONS

BAT – Best Available Technology
BATNEEC – Best Available Technology not Entailing Excessive Costs
GDP – Gross Domestic Product
BSAP – Biodiversity Strategy and Action Plan
CBD (UN CBD) – UN Convention on Biodiversity
CCD (UN CCD) – UN Convention on Combating Desertification
CDM – Clean Development Mechanism of the Kyoto Protocol
CETI – Centre for Eco-Toxicological Research
CFC – Chlorofluorocarbon
CHP – Combined Heat and Power
DUP – Detailed Urban Plan
DWT – Dead-weight ton
EEA – European Environment Agency
EIA – Environmental impact assessment
EMAS – Eco-management and Audit Scheme
EPCG – Electricity Production and Supply System of Montenegro
EU – European Union
EU WFD – EU Water Framework Directive
GEF – Global Environment Fund
GIS – Geographic Information System
GUP – General Urban Plan
ICT – Information and Communication Technologies
ICZM – Integrated Coastal Zone Management
IEA - International Energy Agency
IPPC –Integrated Pollution Prevention and Control
ISSP – Institute for Strategic Studies and Prognoses
IUCN – International Union for the Conservation of Nature
KAP – Aluminium Factory in Podgorica
Kgoe – Kilogram of oil equivalent
MAB – UNESCO program Man and Biosphere
MCSD – Mediterranean Commission for Sustainable Development
Monstat – Statistics Agency of Montenegro
MOP – Material family benefit
MPA – Marine Protected Areas
MAFWM – Ministry of Agriculture, Forestry and Water Management
MDG – Millennium Development Goals
MSSD – Mediterranean Strategy for Sustainable Development
SME – Small and Medium Size Enterprises
NAP – National Action Plan for Children and Youth
NP – National Park
NSSD – National Sustainable Development Strategy
NGO – Non-governmental organisation/s
OECD – Organisation for Economic Co-operation and Development
ODA – Official Development Assistance
PE – Public enterprise
PPP – Purchasing Power Parity
RAE – Roma, Ashkelia and Egyptians



RoM – Republic of Montenegro
RIPN – Republican Institute for the Protection of Nature
SAP BIO – Strategic Action Plan for the protection of sea and coastal biodiversity in the Mediterranean
SEA – Strategic Environmental Assessment
SP – Spatial Plan
SPSPAMD – Spatial plan of the special purpose area *Morsko dobro* (public maritime domain)
DPRS – Development and Poverty Reduction Strategy of Montenegro
WTO – World Trade Organisation
WHO – World Health Organisation
TPP – Thermal Power Plant
UNCSD – UN Commission for Sustainable Development
UN/DESA/DSD – UN Department for Economic and Social Affairs/ Department for Sustainable Development
UNDP – United Nations Development Program
UNEP/MAP – UN Environment Program/ Mediterranean Action Plan
UNESCO – UN Education Science and Culture Organisation
UNFCCC – UN Framework Convention on Climate Change
UNICEF – United Nations Children’s Fund
UNWTO – World Tourism Organisation



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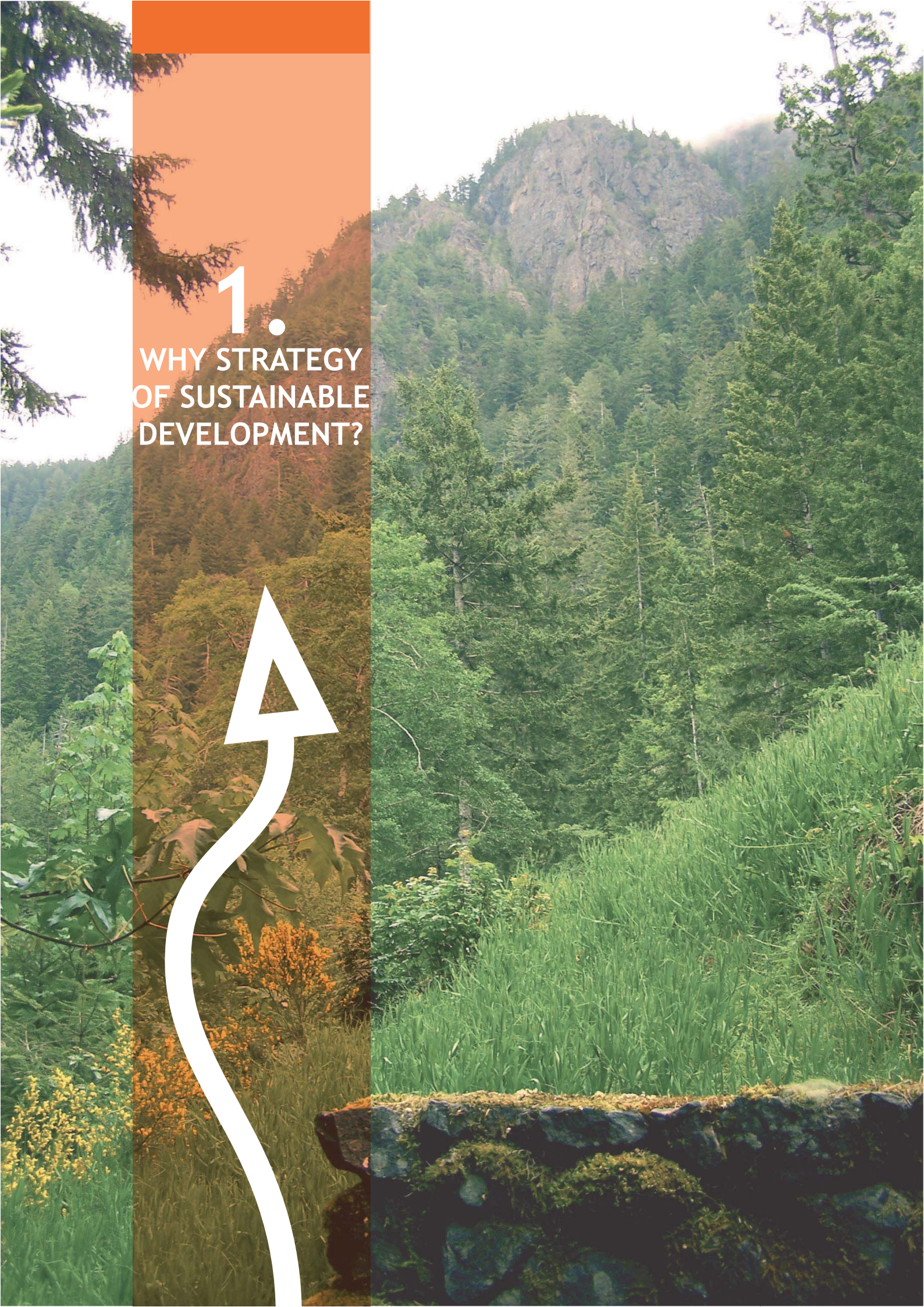
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The background of the slide is a photograph of a lush green landscape. In the foreground, there is a low stone wall covered in moss. Behind it, a field of tall green grass and some yellow wildflowers is visible. The middle ground is filled with a dense forest of green trees. In the background, a large, rocky mountain peak rises above the forest, partially shrouded in mist. A large, white, stylized arrow points upwards from the bottom left towards the text.

1. WHY STRATEGY OF SUSTAINABLE DEVELOPMENT?



1.1 Potential for sustainable development in Montenegro

Geographic position, climate and its spatial characteristics, as well as natural resources and their distribution, make Montenegro an exceptional European country in many ways. In somewhat less than 14.000 square kilometres of its territory, there are exceptional natural values, such as the Boka Kotorska Bay and sandy beaches of the southern part of the Adriatic coast, the biggest lake in the Balkans – the Skadar Lake, the Tara Canyon and mountains of the northern region, with often pristine nature, numerous glacier lakes and peaks with altitude of around 2.500 meters above the sea level. The nature of Montenegro, including rich biodiversity and specific landscape and cultural values, represents one of its greatest treasures. According to the number of different species per unit of surface area, Montenegro is one of the top countries in Europe, and at the same time, it is a home of numerous endemic species¹. National legislation currently protects 7.7% of the territory (4 national parks and areas with a lower level of protection).

The importance and exceptional characteristics of some natural values and cultural and historic monuments in Montenegro have been recognised by the international organisations dealing with the conservation of natural and cultural heritage. UNESCO protected areas include Tara River basin (MAB – *Man and Biosphere* program - since 1977), Kotor and Risan Bay and National park *Durmitor* (the program of *World Natural and Cultural Heritage*, since 1979 and 1980 respectively). Since 1995, Skadar Lake is on the list of internationally significant wetland areas as water birds habitat, in accordance with the Wetlands Convention (the Ramsar Convention).

Forest and water resources represent one of the most significant natural resources that Montenegro has and they are very important from the aspect of sustainable development. Forests cover approximately 45% of the overall territory. Despite the fact that the hydrological conditions vary significantly – from the areas without water, with no springs or surface water flows, to the areas where there is plenty of water, Montenegro as a whole belongs to the group of countries that have rich water resources. A special natural resource is approximately 300 km long coastline, narrow coastal zone and sea aquatorium along the coast, which comprise a specific ecosystem and a significant development potential. Although Montenegro does not have significant soil resources (due to specific natural conditions), there is a substantial unutilised potential for the development of agriculture.

In economic and social sphere, Montenegro is characterised by a relatively high level of development, inherited from the period before the crisis of the 90's of the previous century. Especially important are the achievements in the field of human development (that is, high level of development of the education and health care systems), which have contributed to the fact that Montenegro has significant potentials in the field of human resources and a good basis for economic recovery. Economic reforms are underway, while European integration process that the country is committed to represent an additional incentive and potential for faster and sustainable development of the economy and the society. A very important value is the cultural diversity, which can also give a significant contribution to sustainable development.

1) For example, there are 392 Balkan (regional) endemic plant species in Montenegro.



1.2 Connection between NSSD and the national, regional and global processes and documents

Significant natural potentials and recognition of the duty to preserve them have been a source and a driving force for the adoption of the *Declaration on Montenegro as an Ecological State*. In this 1991 Declaration, the Parliament of the Republic of Montenegro defined strategic commitment that future development of Montenegro would be in accordance with the principles and requirements of sustainability. Such a commitment was confirmed further in the 1992 Constitution, which says that Montenegro is a “democratic, social and ecological state”, and which established the right to healthy environment and the duty to protect and improve it as constitutional principles. The need to develop these principles at the operational level has led to preparation of the framework strategic document *Directions for the Development of Montenegro as an Ecological State* in 2000.

On the national level, NSSD represents a further step in the effort to implement the guidelines defined in the *Declaration on Ecological State* and the 1992 Constitution. It strongly relies/ is derived from the *Directions for the Development as an Ecological State*, while trying to incorporate elements of modern strategic planning and to establish a stronger connection with the international processes. At the same time, NSSD Montenegro is relying strongly on the *Development and Poverty Reduction Strategy*, and a whole set of sectoral strategic documents that were adopted in Montenegro recently.

At the same time, NSSD Montenegro represents one of the elements of implementation of the *Mediterranean Strategy of Sustainable Development* (MSSD) at the national level. NSSD also represents a step towards joining the family of countries that have developed their national strategies of sustainable development and/or strategies of environmental management, in accordance with UNCSO recommendations, which are thus trying to contribute to maintaining the global equilibrium and to global development.

1.3 Principles of sustainable development

NSSD Montenegro is based on the globally accepted principles of sustainable development, defined through the *Rio Declaration and Agenda 21*, *Johannesburg Declaration and Implementation Plan*, as well as on the principles of the *UN Millennium Declaration* (from which the Millennium Development Goals – MDGs – were derived). In the document *Visions of Sustainable Development of Montenegro*, these principles are summarised as follows:

- Integration of environmental concerns into development policies;
- Internalisation of environmental costs (i.e. conversion of external costs of environmental degradation into internal costs of polluters/users) through the implementation of polluter/user pays principles;
- Participation of all the stakeholders in the decision making, consultations, dialogue and partnerships;
- Access to information and justice;
- Equity among generations and equity within the same generation (including

- gender equality);
- The precautionary principle i.e. requirement to safeguard natural equilibrium in the absence of certainty;
- The principle of subsidiarity and interdependency between local and global levels; and
- Access to services and financial resources necessary to meet the basic needs.

These principles represent a prism through which the existing problems and challenges for sustainable development of Montenegro have been analysed, and a framework in which the goals, objectives and measures necessary for the implementation of sustainable development policies have been defined. They also represent guidelines that will direct the overall process of NSSD implementation.

Having in mind the above-mentioned, it can be said that sustainable development (in Montenegro, as well as globally) includes the following²:

- Balanced and equitable economic development that can be sustained over the time;
- Poverty reduction, through empowerment and ensuring better access of the poor to necessary services and resources;
- Participation of all the stakeholders in decision-making (central and local governments, NGOs, private/business sector, professional organisations, unions) while building dialogue and trust, and developing social capital;
- Careful management and preservation (to the greatest possible extent) of non-renewable resources;
- Rational/sustainable use of energy and natural resources (water, land, forests, etc);
- Minimisation of wastes, effective pollution prevention and control and minimisation of environmental risks;
- Enhancing education and health systems, and improving gender balance;
- Safeguarding cultural identities.

1.1 Challenges and development dilemmas

Republic of Montenegro is committed to the protection of environment and sustainable use of natural resources, faster and more balanced economic and social development, and the process of European integration, which all define the directions and goals of its development. At the same time, in the first years of the 21st century, Montenegro is facing numerous, complex challenges and problems that need to be overcome in order to ensure these goals are achieved.

One of the key challenges is implementation and acceleration of economic reforms and ensuring a balanced economic development; closely related are challenges of improving the living standard and reducing poverty. Integration of the sustainability requirements into development policies will represent a special challenge, given the poor experiences so far. In some cases, this challenge will be more pronounced due to the uncertainty and lack of information necessary for the decision making process.

2) As defined in the document *Framework Orientations for Sustainable Development Strategy of Montenegro*



Raising the awareness and capacity building for the implementation of the concept of sustainable development are, for these reasons, of the utmost importance. Changes in the governance system (improved co-operation, co-ordination and consultations between various sectors – within the government, as well as between the government and the private and civil sectors), represent another important challenge (at the same time, this is a prerequisite for sustainable development of the society). Besides these, significant challenges are also related to the processes of European integration and globalisation, and there is a need to improve regional co-operation so that it contributes to the achievement of the sustainable development goals.

Montenegro has been facing a choice of the development model or road to be taken in order to overcome the existing problems and challenges most rapidly. A significant part of the public discusses shortcomings and risks associated with the applied development model. At the same time, there is a growing societal consensus that the future development of Montenegro should be based on the principles of sustainability. Development dilemmas, however, are far from being resolved, and concrete development modalities and application of the principles of sustainability will be the subject of societal efforts for a longer period of time.

In order to secure sustainable development of a society, it is necessary to take a comprehensive approach in managing complex social processes, and to provide for a careful balancing of economic, social and goals related to the protection of the environment and natural resources. Sustainable development also requires engagement of all the stakeholders and permanent dialogue in order to overcome/ avoid the patterns of unsustainable growth and development while securing final results that will be of the highest benefits to the society as a whole, taking into account the future and the next generations. The process of NSSD preparation represents a step in that direction – in the direction of sustainability, dialogue and prosperity.



2.

MEDITERRANEAN STRATEGY AS A FRAMEWORK





2.1 Process and commitments

Mediterranean Action Plan (MAP, within UNEP) and the Mediterranean Commission for Sustainable Development (MCSD) have been designated at the Johannesburg summit as the most relevant programme and institutional framework for the implementation of sustainable development in the Mediterranean region. In an attempt to enable implementation of sustainability principles in the Mediterranean region and to overcome the problems national systems are facing with integration of the environment and development issues, MCSD has worked intensively on the preparation of the *Mediterranean Strategy of Sustainable Development* (MSSD) in the period after 1995 and especially after the Johannesburg summit.

The Convention on the protection of the sea and coastal zone of the Mediterranean – Barcelona Convention - and supporting protocols from 1995, which came out after the changes and amendments of the 1976 Convention, represent the legal framework for the activities of MAP and MCSD (with headquarters in Athens). MAP member states are 21 countries of the Mediterranean and the European Union; Montenegro renewed its membership in the MAP institutions in September 2003.

A necessity to adopt national strategies, which would be inline with the principles laid down by the UN Commission for Sustainable Development (UN CSD) and could be implemented within the regional processes, was stressed at the 9th MCSD meeting in Genoa (June 2004). Montenegro, as a new MAP member state and one of the smallest countries in the Mediterranean was selected to participate in the initial phase of preparation of the strategies within the process of MSSD implementation, together with seven other countries.

The final MSSD proposal was approved at the 10th MCSD meeting in June 2005 in Athens, and the Strategy was adopted at the 14th regular meeting of the contracting parties of the Barcelona Convention, held on November 8-11, 2005 in Portoroz, Slovenia.

2.2 Challenges, goals and priority areas of MSSD

MSSD recognises sustainable development as a necessity in overcoming the following development challenges in the Mediterranean:

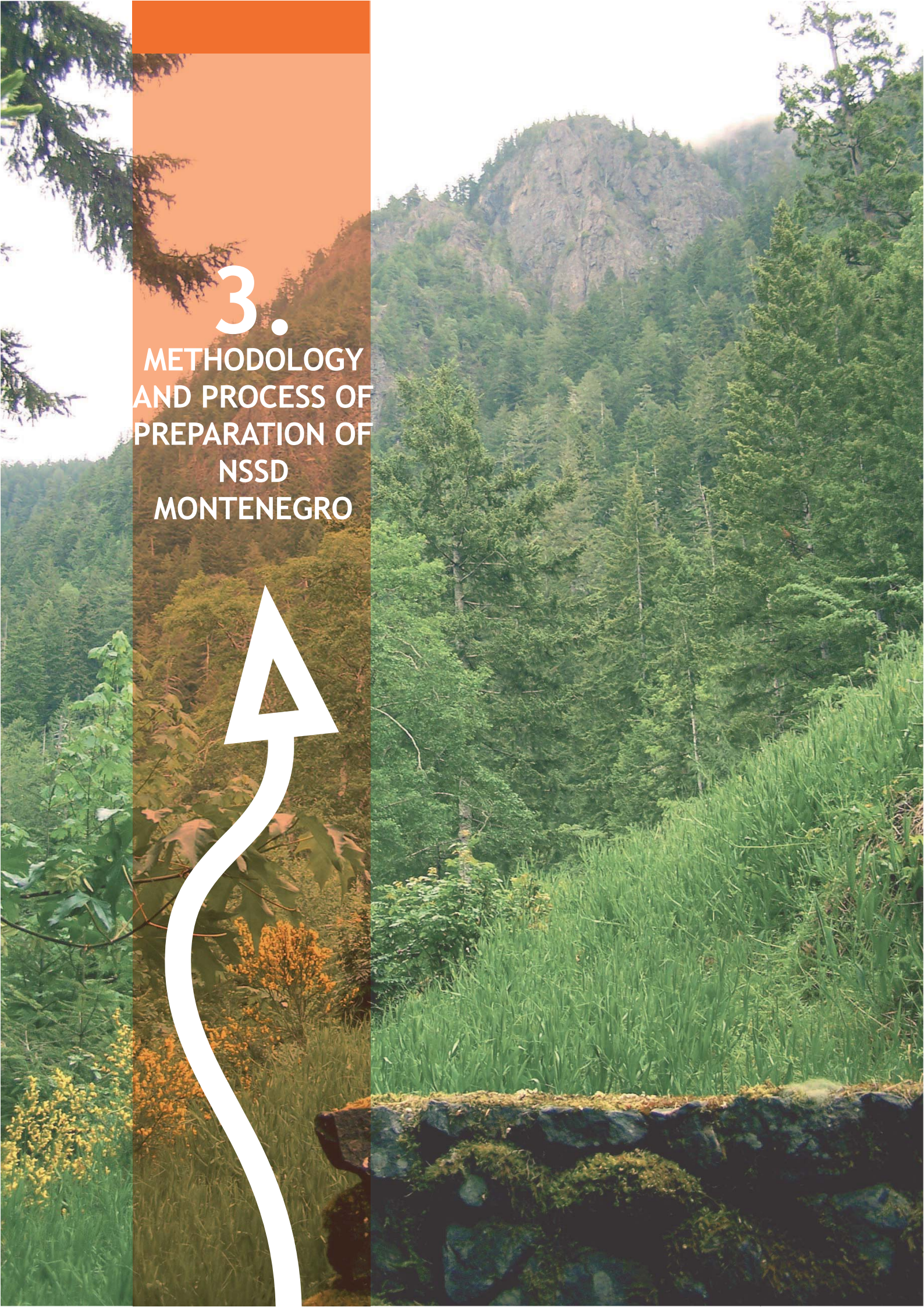
- The challenge of environmental protection;
- Demographic, economic, social and cultural challenges;
- The challenge of globalisation, regional co-operation and management.

Starting from these challenges, MSSD defined the long-term vision of the Mediterranean as a politically stable, prosperous and peaceful region. This vision is based on the selection of “win-win” scenarios that promote co-development of the Mediterranean South and North and use the synergy of efficient environmental, developmental and economic management.

Four main MSSD goals are as follows:

- 
1. Contribute to economic development by enhancing Mediterranean assets;
 2. Reduce social disparities by implementing Millennium Development Goals and strengthen cultural identities;
 3. Change unsustainable production and consumption patterns and ensure sustainable management of natural resources;
 4. Improve governance at the local, national and regional level.

Finally, seven priority areas of MSSD actions are: 1) better management of water resources and demand; 2) improved rational use of energy, increased use of energy from renewable sources and mitigation of and adaptation to climate change; 3) sustainable mobility through appropriate management in transport; 4) sustainable tourism as a leading sector of the economy; 5) sustainable agriculture and rural development; 6) sustainable urban development; and 7) sustainable management of the sea, coastal zone and marine resources.



3.

METHODOLOGY
AND PROCESS OF
PREPARATION OF
NSSD
MONTENEGRO



The process of drafting NSSD Montenegro used positive experiences from the global, European and the processes in the Mediterranean region. It was based on the principles and recommendations stated in the *Rio Declaration* and *Agenda 21*, as well as in the *Declaration and Implementation Plan from Johannesburg*. NSSD Montenegro is also harmonised with the *Mediterranean and EU Strategy of Sustainable Development*, and with the Lisbon process. Another global process that NSSD leans on is the process based on the *United Nations Millennium Declaration* and the Millennium Development Goals.

The methodology of drafting Montenegrin NSSD is in accordance with the recommendations that define the strategy of sustainable development as a *co-ordinated, participatory and interactive process of deliberation and action so that the economic, social and environmental goals are achieved in a balanced and integrated manner at all relevant levels* (UN/DESA/DSD). *The process involves the analysis of the current situation, formulation of policies and action plans, implementation, monitoring and regular reviews. This is a cyclical and interactive process of planning, participation and action, in which the emphasis is given to progress management towards the achievement of the sustainability goals, rather than the process of preparation of a "plan" as a final product.*

At the national level, NSSD is based on the existing strategic documents and available information. NSSD makes an attempt to consider recognised problems in a comprehensive way and to add new quality to the process of resolving them, while respecting the sustainability requirements. NSSD is also aiming to recognise those strategic documents, policies and measures that do not meet these requirements. For some sectors and topics that were analysed in the process of NSSD drafting, lack of information and strategic documents represented a difficulty. However, NSSD Montenegro should be understood as a periodic and repetitive process in which the information received from the monitoring and evaluation system will be used for further improvement and periodical adjustment of the defined goals and measures. NSSD Montenegro should also be seen as a framework strategy that the existing and future strategic documents and plans need to be harmonised with as soon as possible.

NSSD defines visions and sets long-term guidelines of sustainable development of Montenegro, while the time horizon of the NSSD Action Plan is 2007-2012. Drafting of NSSD MN represents the first step in the long-term process that involves continuous monitoring and periodical reviews of the document (of the identified problems, defined goals and objectives, and proposed measures). The basic cycle for the monitoring of implementation is one-year period, while detailed assessment of the Strategy implementation is planned every 5 years. A detailed report on the progress of implementation and the changes and amendments of the Action Plan for the remaining two years of the first implementation period will be prepared in 2010. These activities will contribute to the preparations for the Third World Summit on Sustainable Development. Detailed evaluation and review of the document is planned at the end of the first implementation period, i.e. at the end of 2012.

Ministry of Environmental Protection and Physical Planning (MEPPP)³ was the co-ordinator of the NSSD drafting process. The process was supported by UNEP/MAP,

3) Since the end of 2006 it is the Ministry of Tourism and Environmental Protection



UNDP and the Ministry of Environment, Land and Sea of the Republic of Italy. It lasted one year and was set up in such a way as to enable interaction and exchange of information between different components and stakeholders in the process. In the beginning of the process, the basic documents were prepared – *Visions and Framework Orientations for Sustainable Development of Montenegro* - with the aim to set the grounds for the Strategy preparation at both the conceptual and practical levels.

Public participation and consultations with stakeholders were mainly exercised through the three national workshops (June and December 2005; June 2006) and two rounds of wide participatory meetings at the local/regional level. Participatory meetings were co-ordinated by the non-governmental sector. Representation of the stakeholders was also ensured at the round tables held in January 2006, when NSSD priority goals were determined for various areas. Prioritisation methodology was designed in a way to enable various participants in the process to give their views about the priority goals on the basis of two sets of criteria – importance and feasibility. On the basis of the individual assessments, the group rankings were derived and the results were later used by the expert working groups for preparation of the action plan.

Expert working groups (for economic development, environment and social development) held 4 rounds of meetings in the period September 2005 - March 2006. These meetings were used to agree on the work methodology and to define the results and outputs. The working team (consisting of the representatives of public administration, expert institutions, University, NGOs and consultants) was in charge of preparing the draft Strategy and other relevant working materials, for the incorporation of the recommendations from the participatory process, for the evaluation of consistency of NSSD goals (among various sectors, as well as in relation to other documents) and similar. The Steering Committee⁴ and the National Council for Sustainable Development, as the bodies with wide stakeholder representation, have also provided expert and political support to the process.

4) Steering Committee was established in July 2005 for the needs of drafting of NSSD MN; it consisted of representatives of a range of stakeholders, including relevant Ministries and Government institutions, University and expert institutions, business associations, the Trade Union and NGO sector.



4.

VISIONS AND GENERAL GOALS OF NSSD





Sustainable development vision for Montenegro has been defined in the NSSD basic document of the same name, which was presented at the first national workshop (June 2005 in Cetinje), and which was developed further through the consultations with the main stakeholders of the process and the Steering Committee through August 2005. According to that document, the vision of sustainable development of Montenegro includes:

- Economic development vision, which recognises the need to accelerate economic growth and complete transition to market economy (stimulating innovation and productivity, enhancing entrepreneurship, reducing brain drain) while ensuring sustainability requirements are met through integration of environmental and economic policies and mitigation of the effects of growth on the environment ;
- Social vision, which encompasses poverty reduction and protection of the worst off population groups, as well as ensuring a more equitable share of benefits from economic development across all segments of society;
- Environmental vision i.e. the need to protect the environment and manage natural resources in a sustainable way, promoting at the same time synergy between development and environment and taking into account the right of future generations to quality of life;
- Ethical vision, which includes governance improvements through building capacity of all the actors (central government, local authorities, private sector and civil society) in a move from centralised decision-making process to negotiation, co-operation, concerted action and decentralisation, and implementing principles of sharing and solidarity, respecting human rights through reaffirming the right to development in a healthy and equitable environment;
- Cultural vision i.e. necessity to maintain cultural diversity and identity while enhancing the cohesion of the whole society.

Based on the visions of sustainable development of Montenegro and identification of problems and challenges in the field of environmental protection and management of natural resources, economic and social development, the following general goals of NSSD Montenegro have been defined⁵:

1. Accelerate economic growth and development, and reduce regional development disparities;
2. Reduce poverty; ensure equitable access to services and resources;
3. Ensure efficient pollution control and reduction, and sustainable management of natural resources;
4. Improve governance system and public participation; mobilise all stakeholders, and build capacities at all levels;
5. Preserve cultural diversity and identities.

5) Promotion of the sustainable development concept and of the values this concept encompasses is a precondition for the achievement of these goals.



Specific NSSD objectives for concrete sectors and themes covered by the Strategy are presented in the following chapters (5.1 to 5.3) and in the National Action Plan (Appendix 1). The link between general goals and sectoral/thematic objectives is indicated in the Action Plan.



5.

THREE PILLARS
OF SUSTAINABLE
DEVELOPMENT:
ECONOMIC
DEVELOPMENT,
ENVIRONMENT AND
NATURAL RESOURCES,
SOCIAL DEVELOPMENT

5.1 Economic development: identification of problems and challenges, priority objectives and measures

5.1.1 Macro-economic developments

Economic recession of the 90's together with the inefficiencies and structural inadequacies inherited from the period of centrally planned economy have contributed to the current dissatisfactory condition of the Montenegrin economy. In 2004, GDP per capita was 2.473 EUR (current prices) i.e. 6.641 USD in purchasing power parity (PPP USD). The projected GDP level for 2005 is 1.580 million EUR, that is 1,759 million EUR for 2006, which, together with the retail price increase of 3%, secures real growth of 6%. During the last few years, the real GDP growth rate ranged from 1.7 to 3.7% annually. According to the data from the Employment Agency, the unemployment was significantly reduced in the years 2000 and onwards – from over 30% in 2000 to less than 19% in 2005⁶, while in September 2006 the unemployment rate was less than 24.9% as compared to the same month of the previous year. The unemployment rate varies significantly between regions and according to gender (it is substantially higher in the northern part of the Republic and for female population). The average net salary in 2005 was 213 EUR, while the poverty rate in 2003 was 12.2%, that is, 10.9% in 2004. With the rate of 1.8% in 2005, that is, 1.7% in the first ten months of 2006, the inflation remained at a low level in the last few years. The share of foreign debt in GDP in 2003 and 2004 was at the level of 30-33% (in absolute terms, foreign debt was 438 and 502 million EUR in these two years respectively); foreign debt in the end of 2005 was 513,4 million EUR, which is 31.3% of GDP in 2005, and in September 2006 it fell to 478,6 million EUR, which is 27.22% of the projected GDP for 2006. Other indicators of macro-economic trends show high share of public expenditures in GDP, high trade deficit (in the period January-May 2006 there has been an increase in exports, thus, the trade deficit was 275,6 million EUR) and still low, although growing, level of foreign direct investments (approximately 50 million EUR in 2004, 382 million EUR in 2005, 317 million EUR in the period January-September 2006). Planned budgetary deficit for 2006 is only 30.7 million EUR (reduced by the amount for the repayment of frozen foreign currency savings) or 1.7% of the projected GDP, which is lower, both in absolute and in relative terms, than in 2005; in the period January-September 2006 there has been a budgetary surplus of 21.583 million EUR achieved. Positive trends have also been recorded in the banking sector.⁷

Besides the unfavourable economic conditions, the inherited structure of the economy is quite unadjusted to the requirements of sustainable development. Significant and gradual changes are therefore necessary in this area including a shift from an economy based on polluting industries and unsustainable exploitation of resources. A special problem is linked to the fact that over a longer period of time, development decisions were not made based on the methods that take into consideration social and environmental effects besides the economic ones. Lack of such experiences and capacities, especially in the process of transition to a market economy, and with a view to the necessity to accelerate new development cycle, represent a serious risk to sustainable development.

6) Data from the Labor Force Survey (carried out by Monstat) indicate somewhat higher unemployment rate.

7) Data sources are *Economic Reforms Agenda 2002 – 2007*, *Report on Human Development in Montenegro* (UNDP/ISSP 2005) and *Monet* (ISSP). Source of data for 2005 and 2006 is the Secretariat for Development.



The key challenges are as follows: maintaining macro-economic stability, accelerating economic growth, completing privatisation process, increasing efficiency and strengthening competitiveness of the economy, securing equitable and balanced development on the regional level as well as among the representatives of various social groups, and ensuring a higher level of integration of environmental requirements into all segments of economic policy.

Macro-economic policy in the upcoming period should be focused on overcoming these challenges, that is on maintaining the achieved macro-economic stability and creation of favourable environment for a faster and more balanced economic growth and development. Recognition of comparative advantages of Montenegro and development of a distinctive and quality product, as well as protection of specific values from which such advantages ensue, should represent the basis for the creation of economic policies. Strengthening the competitiveness of the local economy (including restructuring and privatisation), stimulating entrepreneurship and attracting foreign direct investments remain the dominant economic issues.

Besides, it is necessary to include the requirements linked to the sustainable development principles into the process of economic policy making and implementation. These primarily refer to equitable distribution of benefits from economic development, more significant public participation in making the development decisions, strengthening of social and environmental responsibilities of economic entities, and promotion and creation of a “knowledge based economy”.

Integration of these requirements involves a more significant state intervention in regulating economic developments in the areas where ‘failures’ of the market as the basic regulator have been recognised in the developed market economies (such areas are, for example, environmental protection, regional development, social policy). In this process, Montenegro should use the experiences and models that were tested in the developed European economies, and in this way, achieve two-fold benefits – in the implementation of the sustainable development concept on one hand, and in the process of EU integration on the other.

Priority NSSD task is to stimulate the development of service economy, tourism, maritime transport, etc, as the strategic development sectors. A number of measures for the implementation of this objective are discussed in the tourism section of the Strategy. Besides these, priority measures also include further development and implementation of incentives and attraction of foreign direct investments into service sectors, as well as the plan for revitalisation of maritime transport.

5.1.2 Regional development and employment

Montenegro is characterised by significant **regional differences**⁸ in the level of development, which are primarily manifested through the underdeveloped northern region and more developed central and southern regions. In addition to economic hardship, the underdevelopment of the northern region also brings limitations in respect to social development (through limited access to institutions and services) and more pronounced risks of unsustainable use of natural resources (primarily forests).

8) Data sources are Monstat, Employment Agency and ISSP



The northern region comprises just over one half of Montenegrin territory and has the following characteristics:

- The region contributes to national GDP with only 18% (in the beginning of 1990 this was 25.5%); municipalities in which 2002 GDP per capita was close to or below the level of 500 EUR (e.g. Andrijevisa, Rožaje) are part of the region;
- The unemployment rate is close to 30%⁹ (according to the same source, the unemployment rate in the southern region was slightly lower than 21%);
- De-population – the number of inhabitants in the period between the 1991 and 2003 censuses dropped by 9 index points; close to one third of the total population lives in the northern region;
- With 19.3%, poverty rate is significantly higher than the average in the Republic;
- Transportation (and other) infrastructure, especially in rural areas, is underdeveloped.

On the other hand, the region has substantial resources, especially when it comes to agriculture (67% of cultivable land and 70% of the cattle) and forestry (71% of wood mass). The northern region also has significant potential for the development of various types of tourism, especially those that could complement the tourist offer (currently the tourist offer is predominantly linked to the southern region) and contribute to the overall sustainability of the tourism sector. The southern region is at the same time the part of Montenegro with the highest population density; and is still an area to which significant numbers of inhabitants are moving to (the same applies to central region).

Although a significant decrease in the unemployment rate has been recorded since the year 2000, with the rate of a slightly below 19% in 2005, the unemployment¹⁰ is still one of the key economic problems. Besides the economic, the unemployment also causes significant social problems such as social exclusion, the feeling of being deprived of one's rights and the sense of uselessness, and similar.

The main characteristics of unemployment in Montenegro are:

- Unfavourable relationship between the number of employed and unemployed persons;
- Durability; in 2004, almost 65% of the unemployed were waiting for employment for more than one year, while the average time of waiting for employment was 3.7 years;
- Gender inequality; the unemployment rate among men was around 15%, and among women approximately 26% (in 2004);
- High share of unemployment of young people; almost one fourth of the unemployed are persons below 25 years of age, while the average age of the unemployed is 32;
- Regional differences;
- Increase in unemployment of the disabled persons.

Creation of new jobs and improving the unemployment characteristics (especially reducing gender inequalities, stimulating employment of youth and the disabled) are among the key sustainable development challenges. The other major challenges include fulfilment of labour rights (reduction in the frequency of unprotected work – illegal work and «grey economy» employment) and especially solving the problem

9) Data from the Monstat Labor Force Survey for 2004

10) Data sources include Employment Agency, Labor Force Survey and ISSP



of unemployment of the internally displaced persons, refugees and Roma. For these population categories, the unemployment rates are 10-20% higher than the average ones.

Striving to reduce regional development disparities and improve living conditions in the less developed areas should be the basis for policy making in the future period. These can be primarily achieved through more significant support to the development of the northern region and rural areas, while ensuring the optimal use of comparative advantages that these areas have (rural development is elaborated in more detail in the section 5.1.5 – Agriculture and rural development). The programs for stimulating employment and development of small and medium size enterprises should pay special attention to possibilities for creation of «green jobs», that is for creation of new jobs in environmentally friendly sectors.

Priority NSSD objectives are: a) SME development and increase of employment (priority is the northern region and development of mountain and eco-tourism, production of food, especially the healthy one, and sustainable forestry); and b) improving the infrastructure (transport, water supply and sewage, electricity supply) as a precondition for development.

Measures for the achievement of the first objective include programs for SME development and development of entrepreneurship (first of all in agriculture and tourism, and in the northern region), capacity building at the local level and strengthening of inter-municipal and regional co-operation. Measures for stimulating employment are primarily directed towards the population categories that have the unemployment rate above the average (youth, women, the disabled, Roma, etc) and towards solving the problems of redundancies (technological surplus workers). Measures for infrastructure improvements are discussed in more detail within respective sectors and topics (transport, energy, agriculture and rural development, water). From a regional perspective, road infrastructure, electricity supply and water supply (especially in the rural areas) are priorities in the north, while priority issues of the coastal region include water supply, electricity supply and sewage systems/ wastewater treatment.

5.1.1 Transport

Transport has a direct impact on human lives. On one hand, it influences individual mobility and accessibility of specific areas, and on the other, transport has an impact in regard to rational use of time and on quality of life in general. Transportation infrastructure and organisation of transport substantially contribute to mobilisation of the economic potential while transport sector has a significant share in a country's GDP. At the same time, transport is the source of significant pressures on the environment – pollution of air and other environmental media (through emissions from the process of combustion of fossil fuels and creation of waste), creation of noise, and pressures on biodiversity, land and coastal zone due to the construction of transportation infrastructure.

Numerous problems and limiting factors that Montenegrin transport sector is facing hinder more rapid and more efficient development of important economic sectors such



as tourism, agriculture and trade. These primarily include specific land configuration, accumulated problems in the organisation of participants in the transportation chain, financing and management, and insufficient use or bad conditions of transportation infrastructure. The set of new laws for road and railway transportation has been prepared, but there is still the need to modernise the legal framework in which the Montenegrin transportation system is operating and to make it more functional.

The level of motorization is approximately 170 cars per 1,000 persons, which is relatively high in comparison to countries with a similar level of GDP per capita, but far below the EU average. The vehicle fleet is quite old, especially when trucks and buses are considered (e.g. average age for busses is 18 years). The control of vehicle load in freight transport is inadequate, and excess loads significantly contribute to the damages of the road network.

Budgetary limitations experienced in the past 15 years have led to inadequate maintenance of road as well as railway infrastructure. Approximately 1,100 out of 1,847 km of state roads require urgent maintenance works. Inadequate maintenance has resulted in the reduction of average railroad travel speed (to the dissatisfactory 15-35 km/h) and has contributed to a low level of use of railway transport capacities. Insufficient maintenance also has security implications.

Total damage from transportation accidents is estimated at around 2% of GDP, which makes the issue of transportation security one of the priority issues in the sector. Besides infrastructure aspects and security of transportation means, another important issue is the dissatisfactory level of compliance with transport regulations.

There are 5 ship companies registered in Montenegro, which mainly perform the services of line maritime transportation in the Adriatic basin. The companies have 13 ships, with the capacity of somewhat over 40,000 DWT. In addition, there is a significant volume of maritime transportation in the Montenegrin territorial seas, and there are also a large number of yachts and smaller vessels during the tourist season. The system for controlling navigation security and safety in the territorial seas is not fully equipped in accordance with the international regulations (e.g. service for the protection of sea against pollution is still not operational, although it formally exists).

Aspiration to provide for good accessibility (which is a precondition for the development of priority economic sectors) with as low a disturbance in the space as possible, minimisation of negative impacts on the environment and improved safety represent the general frame for policy making and implementation in the transport sector in Montenegro. Priority NSSD objectives for transport are: a) improve transportation connections, especially for the northern region, through better maintenance of the existing and construction of new infrastructure; development of combined transport; and b) full integration of environmental requirements in the development of infrastructure projects and in the adoption of regulations in the field of transport; reduced pollution from transportation and increased transportation safety.

Measures for achieving the first objective are primarily directed towards the creation of financial preconditions for maintenance and construction of new road infrastructure, from public and other available resources. In addition, measures aiming to contribute



to the protection of road infrastructure from the damages caused by excess load of freight vehicles are also recommended here.

For the achievement of the second objective, a whole set of measures is recommended including: a) increase in transport security and safety through more efficient control and enforcement of regulations; b) provision of incentives for combined transport; c) training and gradual introduction of EU standards regarding environmental protection in transport; d) improved control of technical performances of the vehicles; e) implementation of standards and good international practice in designing transportation projects; and f) strengthening capacities for the protection of sea from pollution from ships and increasing the level of environmental protection in ports.

5.1.2 Tourism

Tourism development is one of the Montenegrin economic priorities. The choice to make tourism the driving force of the economy and of the new development cycle is rooted in the fact that Montenegro has the resources necessary for tourism development. At the same time, tourism generates the development of other complementary activities, such as transport, trade, banking, agriculture, construction etc. Such a development has a whole set of positive economic effects, including decrease of unemployment, increase of living standard and contribution to regional/ rural development (by keeping people in the villages and mitigating the problem of «ageing» of the villages through the development of agriculture and forms of tourism related to countryside and agriculture – agro-tourism, eco-tourism and countryside tourism).

However, there are numerous and considerable infrastructure problems that hinder tourism development, and they primarily include:

- Insufficient and poor quality transport infrastructure;
- Inadequate solutions or lack of them when it comes to wastewater treatment and solid waste treatment;
- Problems with water and electricity supply, especially during the high tourist season.

Regarding the development of sustainable tourism, the following problems and limiting factors should be also mentioned:

- Unbalanced distribution of accommodation facilities (96% of the accommodation facilities are located on the coast);
- Strong investment pressure directed towards the coast and the most attractive locations;
- Lack of well trained and skilled staff, especially when it comes to development of complementary forms of tourism;
- Unfavourable age and education structure in the rural areas (from the aspect of their abilities to perform tourist services);
- Short season;
- Major fluctuations in the number of people staying in the coastal region during the high and low season, which has a negative effect on the quality of life of the local population.

Several strategic documents have been prepared for the development of various forms of tourism in different geographic areas, but only some of them analyse in more detail



the effects and consequences of development of tourism facilities on the environment¹¹. For example, no strategic environmental assessments were conducted so far. This is understandable given the fact that the legal framework for SEA did not exist until recently, but also very unfavourable in respect to ensuring sustainable development of tourism. On the other hand, the Master Plan for tourism development, which is currently being reviewed, as the main strategic document, projects a significant increase in the tourism facilities (50,000 beds and 11.4 million overnight stays in 2010, and an even greater increase by the year 2020 – see Box 5.2-1). A higher level of integration of sustainability requirements at the level of tourism development plans, as well as at the level of individual projects, is necessary in the upcoming period.

In order to protect the cultural integrity, respect the basic environmental principles and protect the biological diversity on one hand, and to find the best balance between economic, social and environmental requirements in the course of preparation of planning documents on the other, the principles and guidelines for sustainable development of tourism have been adopted. They will make a framework that will be applied in the processes of the development and approval of strategic documents and plans. The principles and guidelines in question have been derived from the recommendations of the World Tourism Organisation, which is part of the UN family (UNWTO), and they include, among others, the assessment and management of carrying capacity of a given area, sustainability indicators, and similar.

The above-mentioned principles and guidelines will also be applied in revising the strategic document *Master Plan of the development of tourism*, which will plan and guide the overall development of tourism, with special emphasis on the northern part of the Republic, having in mind that this region has not been adequately and sufficiently valorised in the past as compared to the potential it has. Special attention will be given to the protection and use of areas that have special protection status (national parks).

Besides better use of and protection of the areas that are subject to special protection regime, it is also necessary to ensure the implementation of the sustainable development principles and to stop the trends that threaten to damage the unique values and characteristics of the coastal region. Adequate implementation of environmental impact assessment can play an important role at the level of individual projects, while in the wider context it is necessary to introduce fundamental changes in order to ensure integral planning and management of the coastal area (a more detailed elaboration is provided in chapter 5.2.8 – Sea and coastal zone).

Priority NSSD objectives are: a) diversification of tourist offer (development of village, agro-, eco-, mountain, cultural, sports and other forms of tourism, especially in the northern part of the Republic) in support to the extension of tourist season and attraction of guests with the higher purchasing power (the final aim being increase of direct and indirect revenues from tourism); and b) integration of sustainability criteria in sanctioning tourism development projects (i.e. for the adoption and assessment of plans), especially when it comes to coastal and winter mountain tourism.

The measures that are planned for the period of implementation of NSSD Action Plan (2007 – 2012) are the preparation of the pilot projects identified in the development

11) One example of such documents is *Nautical Tourism in Montenegro*



studies, activities related to promotion and creation of a more diverse tourist offer through joint activities of the Ministry of Tourism¹², tourist organisations, tourist companies and the civil sector, education of staff, and provision of funds for the implementation of development projects. Regarding the second objective, planned measures include application of principles and guidelines for sustainable development, revision of the *Master Plan for the development of tourism of Montenegro* and full application of environmental impact assessment in the implementation of big development projects.

5.1.1 Agriculture and rural development

Together with tourism and services, agriculture is one of the top priorities of economic development of Montenegro. The share of agriculture in the national GDP is around 15%, while the sector employs (full time) approximately 9% of the active labour force. Many households perform agricultural production on small-scale holdings (around 5 hectares on average), thus agriculture represents the basic or additional source of income for over 60,000 households. Total value of the fishery sector in Montenegro is 7.4 million EUR, which makes a share of 0.5% in the national GDP (share in the gross product of agriculture sector is 3.1%).

Despite the limited agricultural land of approximately 518.000 ha, Montenegrin agriculture is highly diverse. The second comparative advantage lies in the fact that, generally speaking, soil has not been overexploited yet, while the levels of use of mineral fertilisers and plant protection agents are still quite low (more than 10 times less fertilisers are used in Montenegro in comparison to EU average). Low level of use of mineral fertilisers and pesticides represents a good basis for the development of organic agriculture. However, negative trend of the loss of agricultural land (primarily due to its use for other purposes) is present. There are significant possibilities for the development of fishery, but it is necessary to create preconditions for that (to improve the legal framework and the system of resource monitoring and data collection, and to fulfil the required EU standards in managing the fisheries).

There are numerous limiting factors for the development of agriculture and they, among others, include: a) small-scale holdings and production in difficult natural conditions; b) agriculture is to a large extent just a second, additional occupation, which slows down modernisation and market orientation of the holdings; c) the producers have insufficient level of training and expertise for engaging in agriculture as a business; d) insufficiently developed infrastructure in the countryside; financial sector is not strong enough to provide loans for agriculture and banks are generally not prepared to approve loans to small-scale food producers; and e) underdeveloped market infrastructure and insufficient vertical integration of primary agriculture and processing industry. The scope of incentives is not satisfactory, having in mind that the total state support to the development of agriculture participates in GDP with approximately 0.65%.

As a result of these and other limiting factors, competitiveness of food producers is relatively low, and Montenegro highly depends on imports in the food sector. In 2004, food imports contributed to foreign trade deficit with close to 150 million EUR, while 28% of imports were covered with exports (still low a rate, although significantly higher than in the previous years).

12) Since the end of 2006 it is the Ministry of Tourism and Environmental Protection



EU (as well as WTO) integration processes pose numerous challenges for Montenegrin agriculture, since the experiences of other countries show this is the area with the highest level of requirements in the process of accession to the European Union. These requirements refer to food safety, joint organisation of the market for specific types of agricultural products and rural development – a component of agricultural policy that is paid ever-increasing attention in the EU.

When it comes to the model of the future development, Montenegro has chosen the **concept of development of sustainable agriculture**, which places agriculture in a much wider context compared to simply looking at its significance in terms of contribution to GDP. The rationale of the new development model is multiple role of agriculture, which has a function of sustainable rural development, environmental protection and a function in securing sustainable resource management in the long term, economic function, function of support to the development of tourism, social, food security and national-cultural function (through the protection of tradition and cultural heritage in the countryside).

Priority objectives for the development of agriculture and fishery are: a) providing for a stable and good-quality food offer through the increase in competitiveness of domestic producers and sustainable management of resources; and b) rural development and provision of adequate living standard for the rural population. The measures that need to be implemented in order to achieve these objectives first of all refer to the improvement of the legal framework (in accordance with the EU requirements), as well as to the provision of greater support to the development of agriculture and fishery from the budget, and from the private sector (accessibility of loans and similar). Furthermore, it is necessary to stimulate co-operation and associations between producers in primary production, to develop market infrastructure and create more favourable conditions to attract foreign investments into processing facilities and distribution of products. An especially important set of measures relates to the development of system for food safety control, development of organic agriculture, promotion of specific characteristics of local products and spreading the knowledge about good agricultural practices in order to protect the environment. The measures related to rural development primarily include provision of a more substantial support to the less favoured areas, improvements of rural infrastructure and enabling diversification of income sources.

5.1.2 Energy

The energy sector is of an essential importance for sustainable development of Montenegro, both from production and consumption aspects. This is due to the fact that provision of sufficient quantity of energy represents a precondition for economic development and satisfactory living standard on one hand, while the production and use of energy are related to significant negative environmental impacts on the other.

In the context of sustainable development of Montenegro, the following problems can be identified:

- Low level of energy efficiency (as a consequence of non-economic prices, obsolete and energy-inefficient technologies and equipment). The energy intensity ratio (use of energy per unit of gross domestic product) was 0.432 kgoe/EUR in Montenegro in 2003, while in the developed countries this indicator is on average 0.205 kgoe/EUR. According to the IEA (International



Energy Agency) calculations, this ratio was 0.13 kgoe/EUR for EU countries in 2001¹³. This means that approximately 2.1 times more energy is consumed per unit of domestic product in Montenegro than in the developed countries, or 3.3 times more than in the EU, which shows that there is a large room for improvements in energy efficiency.

- Very high electricity losses in the transmission and distribution systems contribute to low energy efficiency; these losses are caused mainly by the organisational weaknesses (so-called commercial losses) and obsolete and depreciated networks and equipment (technical losses).
- Unfavourable structure of energy consumption, with high participation of electricity and primary sources of energy (coal, oil, etc);
- Very unfavourable structure of consumers, where Aluminium Plant (KAP) and Steel Mill in Nikšić dominate (total consumption by the aluminium factory and the steel mill represents almost one half of the gross electricity consumption in Montenegro);
- Very high import dependence in meeting the energy needs; the entire consumption of oil and oil derivatives is covered from imports, as well as one third of electricity consumption;
- Inadequate degree of connection and integration with the energy production and supply systems in the region;
- Low level of use of own natural energy resources, especially of the available hydro potential.

Solving the problems in the energy sector is linked to significant challenges. Available hydro-potential is estimated at approximately 7,000 GWh with the natural water flow, while in the case of integral use of waters, this potential is estimated at approximately 11,000 GWh. Total electricity production in 2004 was on the other hand 3,185 GWh, while the consumption stood at 4,510 GWh. However, construction of new hydro power plants can have negative impacts on the environment (depending on the type of hydro power plant and size of accumulation), so the decisions on their construction need to be made on the basis of a detailed and comprehensive environmental impact assessment. In making such decisions, it is necessary to take fully into consideration all the economic, social and environmental benefits and costs of a given project.

Montenegro has relatively large possibilities for electricity generation in thermal power plants, since the exploitation reserves of coal in Pljevlja and Maočki basins are estimated at approximately 170 million tons. Limitations for electricity generation in thermal power plants come from the requirement for rational exploitation of non-renewable resources and especially from the fact that combustion of fossil fuels is connected with significant local and global environmental problems.

The existing unit of the Thermal Power Plant in Pljevlja is one of the biggest polluters in the Republic and from the aspect of EU regulations, this situation is not sustainable in the long run. During the future operation of the existing thermal power plant, as well as in the case of possible construction of a new unit, all the relevant EU Directives on environmental protection and operation of such plants will have to be respected. This will require significant but necessary investments into Pljevlja Power Plant. Reconstruction of the existing and construction of the new unit represent an integral

13) Data from the *Energy Efficiency Strategy*



part of the Plant's privatisation Tender. A construction of a district heating system is seen as a priority by the local community, which perceives it as justified from economic as well as from the perspective of protection of the environment and human health.

Montenegro has a significant potential for energy generation from small hydro power plants and alternative sources. In order to really utilise these potentials, it is necessary to create substantial institutional, administrative and financial preconditions. Activities aimed at creating necessary preconditions for the construction of small hydro power plants are currently being implemented, together with activities aiming to provide for a higher level of use of energy from other renewable sources (such as the energy of sun and wind). Greater use of renewable and alternative sources of energy represents an important element in the context of EU accession, but also in the context of fulfilling the obligations and benefiting from the relevant international agreements and protocols.

When constructing new energy facilities as well as in the phase of their operation, all the relevant national legislation and internationally accepted obligations regulating energy, environmental protection, competitiveness and other relevant areas will be respected. In addition, requirement that the development of new energy facilities must not disturb the integrity of protected areas, especially the ones that are under international protection regime, will be taken into account.

Another challenge for the energy sector is related to necessary introduction of market prices for electricity, which in the existing conditions raises social and economic issues. The tariff policy is very important in this respect, as an instrument that must ensure availability of electricity to all the population groups. On the other hand, setting of prices at the level of cost recovery is an imperative for market operation and for financial sustainability of EPCG.

Priority NSSD objectives for energy sector are: a) rational use of electricity with the increase of at least 10% in energy efficiency by 2010 in comparison to 2005; and b) reduction in energy import dependence through optimal use of available national resources and with priority to utilisation of renewable sources. Measures for the achievement of the first objective include: reduction of losses; implementation of the *Energy Efficiency Strategy* (through the annual action plans); establishment of the energy efficiency fund; promotion, implementation and provision of incentives for the projects that increase energy efficiency in all sectors; and strengthening the energy information database. In relation to the second objective, it is necessary to adopt the *Strategy of the Energy Sector Development*, to harmonise national regulations with the relevant EU regulations and to work on the creation of a more efficient framework (institutional, financial, regulatory) for sustainable development and involvement of the private sector. Further necessary measures are related to maintenance, revitalisation and modernisation of the existing and construction of new infrastructure for energy production and use, as well as for the creation of preconditions for the greater use of renewable energy sources and combined heat and power generation (CHP). Finally, it is necessary to create market conditions for operation through tariffs that reflect the real costs, while ensuring adequate protective mechanisms for the vulnerable population groups.



5.1.1 Industry

The existing structure of the industrial sector can be described as very unfavourable and inadequate for several reasons, and especially for the following ones:

- Technologies and equipment are obsolete /outdated, which is linked to low efficiency and negative environmental impacts;
- Structure of industrial capacities is unfavourable, since big economic entities dominate, while the participation of small and medium size enterprises is far below the world's average;
- Also unfavourable is structure of capital, where fixed assets are prevailing and there is a constant shortage of current assets;
- In respect to energy consumption, because energy intensive users dominate.

The level of competitiveness of the industrial sector is very low, while own funds for investments into modernisation and development projects are lacking. In such a situation, the challenges of privatisation, restructuring and modernisation of industrial facilities are great.

The main lines of action in the industrial sector in the upcoming period include continuation of the privatisation and restructuring processes, creation of legal preconditions for the liberalisation of the market for industrial products and development of small and medium size enterprises in industry, which should all lead to increased competitiveness. Special attention should be given to social and other programs for redundant workers (technological surpluses) in the privatisation process.

From the aspect of sustainable development, priority objective is to improve industry's environmental performance. The measures for the achievement of this objective include consistent implementation of the law on integrated pollution prevention and control and strengthening of the role of market based instruments (e.g. pollution charges). It is also necessary to implement incentives for investments into cleaner technologies, that is increase in energy efficiency among industrial consumers and to encourage rational use of waters in industry. Special attention should be given to strengthening of partnerships and to the instruments that are based on voluntary approaches (standards, EMAS, eco-labels on products, etc), having in mind that the developed countries' practice shows that enterprises with better environmental performance are also more efficient economically. Another set of important activities refers to the implementation of commitments made by the state for the clean up of past pollution (either through the privatisation process or for the companies that no longer exist), as well as to fulfilment of obligations accepted by the new owners of the privatised companies.

5.1.1 New technologies

High level of emissions into the environment and a high level of generated waste characterise technologies used in Montenegro. These technologies are found in the currently active industries and in the mining sector, but they were also present in the plants and mines that are no longer operational. Technologies with the most significant negative environmental impacts are used in metallurgic facilities (steel and other metals



alike), coal combustion plants (boiler rooms, thermal power plants), metal-processing industry and mining.

New or "clean" technologies, on the other hand, not only have better environmental performances but also result in economic benefits through the reduction in production cost and increase in production efficiency. New technologies support sustainable development by securing: a) efficient use of primary energy and raw materials; b) systematic recycling of products and waste as potential primary and energy raw materials; c) designing long term products; d) preferring renewable sources of energy; and e) economic growth without environmental pressure and creation of new jobs.

Montenegro does not have an adequate regulatory framework¹⁴ that defines technological standards and requires use of certain types of technologies (e.g. BAT, BATNEEC). At the same time, there is no systematic monitoring of emissions (linked to the issued permits), so that the challenges of harmonisation with European standards remain great (both in terms of developing institutional capacities and securing funds necessary to achieve certain standards). A special challenge is the creation of synergy between "clean" technologies and the creation of new jobs, which is a process that was clearly noted and emphasised in numerous EU political documents and action plans. At the same time, a significant challenge is the necessity to reform the technological education and the need to allocate more funds for research and development¹⁵, since progress in the use of new technologies and the development of the society in general cannot be achieved without research and development.

Priority NSSD objective in the field of new technologies is to stimulate research, development and innovations. Measures for the achievement of this objective include: preparation of the strategy for research and development; creation of economic instruments to stimulate research and provision of technical assistance in the initial phases of use of new technologies; increase in public and private expenditures in this field; and improvement in the technological education and more significant participation in the international projects.

5.2 Environment and natural resources: identification of problems and challenges, priority objectives and measures

5.2.1 Protection of biodiversity and conservation of natural values (especially in the protected areas)

Biodiversity and other natural and landscape values of Montenegro are mainly preserved, despite numerous pressures to which they are exposed. The most important pressures include (direct) use of natural resources, intensive and non-balanced development of certain sectors (tourism, urban development, etc.), conversion of natural habitats into semi-natural and artificial ones, pollution (wastewater, solid waste), etc. A special challenge are the pressures in the area of Skadar Lake and Durmitor mountain, which need to be adequately addressed through a more efficient protection of the appropriate zones and establishment of sustainable development at the level of local communities

14) With the adoption of IPPC Law, which will come into effect in 2008, the first step was made in the direction of establishment of the regulatory framework.

15) Recommendations of the EU Lisbon Strategy (2000) and Barcelona (2002) recommendations of the Council of Europe are that budgetary funds allocated for science and research should amount to 3% of GDP.



that gravitate towards national parks. Besides, significant challenges are related to the protection of biodiversity, nature and landscape of the sea and coastal zone; responses to these challenges should be sought through the protection of especially valuable habitats and through an integrated management of the whole area.

Share of the nationally protected areas in the whole territory is 7.72% and it mainly refers to the four national parks. This indicator is below the European average, while there were no new designations of protected areas recently. A significant part of the territory (17.2%) is internationally protected on the grounds of exceptional natural or cultural values, or as a wetland area of international importance (according to the criteria of the UNESCO programs *World Natural and Cultural Heritage* and *Man and Biosphere*, and the Ramsar Convention). Although the previous projections of protected areas covered almost all the key biodiversity areas (bio-centres and bio-corridors), techniques for the definition of those areas according to the EMERALD and Natura 2000 classifications of habitats have not been used in practice so far. Obligations that will ensue from the implementation of EMERALD and Natura 2000 classifications will improve the network of nature protected areas (in planning and in definition of protective measures), through the inclusion of all the representative habitats and ecosystems.

The existing legal and institutional framework does not provide for a satisfactory level of efficiency in implementing nature and biodiversity protection measures. Apart from the insufficient level of enforcement of national regulations, there are also numerous obligations from the international agreements (conventions and protocols) that await adequate solutions. National strategy for biodiversity protection, which is required under the Convention on Biodiversity (CBD) has still not been prepared (GEF project is approved, implementation is forthcoming).

Substantial management weaknesses and problems are obvious for the national parks as well as for other protected areas, whereas the managers are determined only for the category of National Parks (NP); in most of the other protected areas this is not the case. In appointing new managers of nature protected areas and in strengthening the capacities of the existing ones, it is necessary to follow the IUCN guidelines, including the transfer of responsibility to the local level.

As mentioned in the introductory part of this chapter, biodiversity and nature of the Montenegrin coast have long been exposed to significant pressures. As a result, impoverishment of the natural areas that give this region the Mediterranean character and critical vulnerability of certain components of biodiversity (disappearance of species) were recorded. The national report for SAP BIO was prepared in 2004 at the level of the preparatory strategy for the protection of biodiversity of the Mediterranean zone in Montenegro. It is thus necessary to undertake further steps towards the implementation of this document.

Another problem is the fact that international standards for the protection of global components of biodiversity are not sufficiently integrated into the traditional mechanisms for controlling the use of economically significant biological resources (hunting, fishing, old breeds in cattle raising and farming). Finally, information on biodiversity is not systematised and is scattered throughout the



expert and scientific literature; thus, there are insufficient (scientific) inventories of numerous taxonomic groups. Monitoring of the state of biodiversity is not sufficient and it does not provide necessary level of information.

A special challenge in the protection of biodiversity and natural values is finding a way to resolve conflicts between nature protection and development. In order to make the development decisions sustainable (from the long-term aspect), it is necessary to include mechanisms for the assessment of impacts on biodiversity in resolving these conflicts. In other words, it is necessary to ensure greater level of integration of knowledge about biodiversity and natural values into sectoral plans, programs and strategies, and in case of unreliable or insufficient information it is necessary to apply the *precautionary principle*. The general recommendation of NSSD Montenegro is that the spatial location of large development facilities and projects (e.g. big infrastructure – roads, water supply system, pipelines, railways, waste landfills, water accumulations and others) must not be in conflict with the need to preserve the integrity of nature protected areas, especially the ones that have international importance. The opposite was often the case in the past, both at the level of plans and at the level of concrete implemented projects.

Priority NSSD objectives are as follows: a) increase national nature protected areas to 10% of the territory and protect at least 10% of the coastal zone by 2009; in identifying protected areas, European classification of habitats significant for protection purposes (EMERALD, Natura 2000) should be used, making sure that all the representative ecosystems are included; b) establish an efficient system for managing nature protected areas (the system should be harmonised with the IUCN management categories and provide for participatory approach to management); and c) improve the legal framework for the protection of biodiversity; strengthen human resources and develop an effective system for biodiversity monitoring.

In order to achieve these goals, it is necessary to undertake a set of actions that include defining the network of protected areas and placing new ecosystems under protection regime (concrete locations are given in the action plan), establishing managers for all the nature protected areas, adoption of new management plans (in accordance with the IUCN recommendations) and consistent implementation of the existing documents (with capacity building of the relevant institutions), adoption and implementation of the national biodiversity strategy, change of the relevant regulations and harmonisation with EU legislation, implementation of priorities from SAP BIO report, and establishment of the adequate monitoring program.

5.2.2 Water

Due to rich rainfall and relatively well-preserved water resources, Montenegro has good quality and abundant underground and surface waters (unlike most of the Mediterranean region, where water shortages are present). Richness and quality of water resources represent one of the most important comparative advantages of Montenegro.

When it comes to the consumption of water from the public water supply systems, it should be mentioned that the average consumption in Montenegro is exceptionally high - almost twice as high as the consumption in Western Europe (where on average 150



litres are consumed per capita per day). Higher consumption of water in Montenegro can partly be attributed to climatic conditions, but is mainly due to wasteful use of water (especially in households, but also by other consumers), and much higher than necessary losses in the water supply systems.

Besides the superfluous consumption, which is partially caused by low water prices and low collection rates, other problems in the water supply system include water shortages, especially in the coastal region and during the summer season, and insufficient level of coverage of the rural areas with public water supply systems¹⁶ (with poor water quality control for the waters from the rural water supply systems and other sources). Quality of drinking water is regularly monitored for the public water supply systems in Montenegro, and the quality requirements are inline with WHO and EU standards. In the period 2000 – 2004 (the latter was the last year for which there were available data), the percentage of samples that did not comply with prescribed physical/chemical and micro-biological standards ranged from 9 to 15% of the total number of tested samples¹⁷.

The industry is mainly supplied with water from own sources, while total consumption in recent years amounted to 50 to 60 million m³. More than half of the water consumed by industry comes from underground sources. The biggest industrial consumers of water are the metallurgic facilities (aluminium factory, steel mill) and thermal power plant in Pljevlja. These consumers use around 43 million m³/year, while it is estimated that approximately 2/3 of this water gets re-circulated. Agriculture is not a significant consumer (using approximately 6 million m³ per year).

Discharge of communal and industrial wastewater into natural recipients is done with almost no treatment (the exception are some industrial plants and part of the communal wastewater in Podgorica). An additional problem is the lack of pre-treatment of industrial wastewater discharged into the public sewage systems, and a low level of residential connection to the sewerage.

Despite the existing pressures, surface waters are, generally speaking, of a good quality. Still, one should not neglect the fact that for some water bodies, deviations from the legally prescribed quality categories are recorded (examples include rivers Vežišnica and Čehotina, rivers Ibar, Lim and Morača downstream from the settlements/ cities, Skadar and Plav lakes (microbiological variation), and some parts of the coastal sea). These are mainly due to higher than prescribed concentrations of polluting substances from the wastewater. It is necessary to point out that the so far surveys of water quality have not indicated presence of pesticides and other persistent carcinogenic, mutagenous and teratogenous substances in fresh and salty waters.

Preservation of quality and integrity of water resources is a significant challenge, especially having in mind the fact that water pollution and inadequate water abstraction

16) Over 3/4 of households (and a bit less population) in Montenegro use water from the public water supply system. Situation in the urban communities is much more favourable, as more than 95% of urban population is supplied with water from public water supply systems. Urban water supply systems cover, apart from 40 towns, another 174 suburban and rural communities – a total of 214 communities.

17) Exceptionally, the percentage of samples that did not meet micro-biological standards in 2004 was 22%. Source: Institute for Public Health



in karst regions such as Montenegro can cause permanent and serious consequences. A special challenge is harmonisation with the requirements of the EU Water Framework Directive (WFD) and creation of preconditions for its implementation in Montenegro. The basic goal of WFD is to establish adequate framework that would provide for protection, improvement and prevention of further deterioration of all water resources. Such a framework is integrated river basin management, which involves, among other things, establishment of efficient mechanisms to resolve potentially conflicting forms of water uses and to balance interests of all the stakeholders in the river basin. Introduction of this new concept in managing water resources in Montenegro is very important for sustainable development, having in mind the fact that, for example, the use of watercourses for electricity generation (especially through big accumulations) has significant impacts on hydrology and other characteristics of the river basin and can be in collision with the other potential uses of water resources. Another significant challenge is adequate implementation of the strategic and environmental impact assessments (SEA and EIA) in cases when large interventions are planned (which can, especially in the transition period, be motivated by an attempt to create quick profits on the expense of natural resources), especially for the cross-border watercourses.

From the aspect of sustainable development it is very important that the existing water pollution (due to the low level of communal and industrial wastewater treatment and inadequate waste disposal) is efficiently controlled and reduced, and that significant improvements are made in relation to the existing (and potential) non-sustainable patterns in the use of water and watercourse resources. The priority NSSD objectives have thus been defined as: a) ensuring sufficient quantity of good quality drinking water; and b) introducing integrated river basin management, with necessary legal and institutional changes and improvements in the quality control and monitoring of waters.

In order to achieve these objectives it is necessary to implement a set of short-term and mid-term measures. For the first objective, these measures include: more comprehensive protection and adequate control of the existing and potential water springs; improvements in water supply in rural areas (including the preparation of plans and creation of preconditions for better management of village water supply systems); better management of water supply systems, reduction of losses and prevention of the use of drinking water for other purposes; introduction of the system of water charges on the basis of cost recovery; construction of the water supply system for the Coastal Region; and use of potentials for water bottling. In relation to the second objective, the measures are as follows: a) adoption of the new Water Law and harmonisation of regulations with the EU Directives; b) signing and ratification of international conventions (Helsinki, Stockholm, Protocol on Water and Health, etc); c) capacity building for the implementation of integrated river basin management; d) preparation and implementation of GEF projects for Tara and Lim rivers and for Skadar Lake; e) implementation of priority projects defined in the wastewater Master Plans; f) consistent implementation of IPPC law; and g) consistent monitoring of water quality.

5.2.3 Air

The air pollution levels are measured in 16 towns in Montenegro at 36 measurement sites. All stations for air quality monitoring are located in the towns, unlike many other



European countries, where 20% to 70% of the stations are located outside the towns. Main factors contributing to the deterioration of air quality are anthropogenic: transport, industry, power generation and communal activities. The main air polluters in Montenegro operate without any or with very outdated equipment for filtering gases emitted into atmosphere, while records of total emissions are not kept. Among the natural factors, the phenomenon of thermal inversions in karst valleys (Cetinjsko and Nikšićko polje) and in mountain valleys (Pljevaljska, Beranska and Bjelopoljska kotlina) prevents ventilation and elimination of pollutants.

Mean annual concentrations of pollutants in the majority of urban settlements in Montenegro are far below the maximum allowable pollution limits. The exceptions are the fluoride levels in Podgorica, Nikšić and Pljevlja, which significantly exceed the allowable limits throughout the year for 3 to 6 times. Other parameters that sometimes exceed the allowable concentrations are SO₂ and as a result of vehicle exhaust gases, maximum concentrations of nitrogen monoxide, nitrogen dioxide and total nitrogen oxides, which exceed short-term allowable pollution limits for up to 5 times. Maximum daily concentrations of the ground-level ozone also exceed the allowable limits in several towns – Berane, Budva, Herceg Novi, Kotor, Pljevlja, Podgorica, Tivat and Žabljak.

The air protection policy in Montenegro is based on the Law on Protecting Air from Pollution from 1980 and subsequent bylaws. These regulations are outdated and need to be harmonised with relevant EU legislation. Moreover, there are numerous international agreements where Montenegro has to make a significant step forward, including the Convention on Long-range Transboundary Air Pollution, UN Framework Convention on Climate Change and Vienna Convention on the Protection of the Ozone Layer. Regarding the eight protocols to the Convention on Long-range Transboundary Air Pollution, Montenegro is a party only to one (EMEP), while it is very important to ratify the three most recent Convention protocols: Protocol to Abate Acidification, Eutrophication and Ground-level Ozone, (Gothenburg, Sweden); Protocol on Persistent Organic Pollutants; and Protocol on Heavy Metals (Aarhus, Denmark).

In addition, there are two significant UNECE Conventions addressing transboundary issues relating to air pollution: Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, Finland, 1991), and the Convention on the Transboundary Effects of Industrial Accidents, (Helsinki, 1992) that are to be ratified by Montenegro.

Apart from the ratification and compliance with international agreements, significant challenges relating to preservation of air quality in Montenegro in the coming period refer to the enforcement of IPPC legislation and improved control and reduction of pollution from mobile sources (transport).

The priority NSSD objective is to preserve, and if possible to improve air quality, especially in urban areas, while the measures that need to be undertaken to achieve this include: a) harmonisation of national legislation with EU air quality directives; b) ratification of relevant protocols to the Convention on Long-range Transboundary Air Pollution; c) development of a long-term strategy and an action plan for air quality management; d) phasing out the use of leaded petrol and reduction of sulphur levels



in diesel fuels and oil; e) introduction of integrated permits in line with the IPPC legislation; and f) establishment of the national network for monitoring air quality in line with EU standards.

5.2.4 Soil

Soil is one of the most significant natural resources. The process of its formation is extremely slow and practically immeasurable in comparison to a human life span, while the process of degradation and destruction of the soil may take place in a relatively brief period of time.

Although it has an area of 0.84 ha per capita, Montenegro has a small surface of agricultural land - around 517,000 ha only. The structure of agricultural land is also unfavourable, since the share of arable flat lands is small. Despite the limited availability of this resource, a trend of its constant further decrease is recorded (especially when it comes to the best quality and the most productive agricultural land). Permanent conversion of agriculture land is done by the construction of urban and rural settlements, transportation routes, airports and hydropower plants.

On the other hand, destruction of a good quality surface layer of the soil is taking place through a number of human activities that include: a) sand and gravel extraction at several locations from river beds and karst fields; b) exploitation of minerals – bauxite, coal, stone, zinc and lead; c) processing of minerals and other raw materials in industrial plants; d) production of brick and roof tiles from the raw materials from surface excavations in Tivatsko field, Berane, Kolašin, Pljevlja; and e) tailings disposal. The exploitation of mineral deposits and other raw materials in Montenegro amounts to some 18,000 tons a year. With an addition of approximately the same volume of tailings, some 25,000 cubic meters of soil is being devastated annually.

Other significant factors of soil degradation include erosion (water, wind) and *in-situ* damages of soil (physical, chemical and biological).

The decrease in soil fertility, land degradation and inappropriate use of soil that leads to ecosystem degradation and poses a threat to biodiversity, are all seen as forms of unstable and unsustainable development. Therefore, there is a real need for optimal soil management to provide for its proper protection, rational use and enhancement.

The priority NSSD objective is the improvement of soil management and prevention of the causes of land degradation and damages. The measures and activities that need to be undertaken in order to achieve this objective are the following: a) improved monitoring and mapping of hazardous and harmful substances in soil; b) prevention, i.e. reduction to a lowest possible level of the conversion of agriculture land and its use for other purpose; c) ratification of the UN Convention to Combat Desertification (UN CCD) and implementation of measures envisaged by the Convention; d) introduction of the system of soil fertility control and the rational use of fertilisers at arable areas of as many households as possible; e) gradual re-cultivation of degraded soils (priority should be given to Pljevlja area); and f) mapping of erosion by types and degrees, and development of measures for protection and regulation of eroded areas.



5.2.5 Forests

Out of the total area of the Republic of Montenegro (1,381,000 ha), 743,609 ha or 54% are forests and woodlands, whereas forests cover 620,872 ha or 45% of the total territory. Forests are extremely important for the preservation of natural balance, biodiversity and quality of the environment, as well as for the economic development, especially in the northern, underdeveloped region. At the same time, forest ecosystems are exposed to multiple pressures threatening to lead to unsustainable use, primarily through uncontrolled, unplanned activities and excessive exploitation of natural resources.

Other problems having negative impacts on the state of forests in Montenegro are: a) forest ecosystems are not managed integrally (hunting, fishing, tourism; non timber forest products – medicinal and aromatic plants, etc.; development of agro-forestry); b) wood cutting equipment is old and unsuitable to the conditions and needs, while most work is conducted by persons without the necessary qualifications (this problem was exacerbated with the change from state controlled felling system to concessions); c) weak or inadequate accessibility of forests; d) lack of use of biomass; e) the fast-growing and high quality species are not used for reforestation; f) inadequate management of protection zones; and g) inadequate system for protection against forest fires. The lack of reliable and updated data on forest resources and the fact that the national forest inventory does not exist represent a special problem from management perspective. There is also no system for monitoring the health status of forests.

The move from the current to sustainable utilisation of forests and woodlands is the right way to resolve the conflicts between the requirements to protect forests on one hand, and the need for their exploitation on the other. Inline with the goals of sustainable stewardship, forests will be maintained and, if need be, increased because of economic benefits (benefit function) and the significance they have for the environment (protection and recreation functions, fulfilled particularly through their contribution to permanent preservation of natural equilibrium, their positive impact on the climate, air purification, preservation of water regime, soil fertility and plant and wildlife, preservation of landscapes, contribution to agriculture and preservation of the infrastructure, and through possibilities they offer for leisure and recreation).

At the same time, sustainable forest stewardship ensures the greatest possible benefit from forests to present-day society and to future generations, since it is based on the principles of sustainability and economy and the concept of ecological forestry (ensuring permanent execution of forest functions having in mind the long time needed for their growth). Sustainable use of forests and all forest resources is not possible without the rational use of land and water resources or without fair distribution of benefits achieved through the use of these resources.

In order to resolve the current issues and overcome the challenges, it is necessary to work on the improvement of regulations, the planning system, management tools and monitoring and control system, as well as on promotion of multiple functions of forests and fair distribution of benefits generated by forest ecosystems.

The priority NSSD objectives in the field of forest ecosystems management are: a) to obtain sustainable forestry certificate (in accordance with Forest Stewardship Council – FSC methodology), and b) renewal and restoration of degraded forests.



In order to improve management and obtain the sustainable forestry certificate, the priority measures are to adopt the National Forestry Policy for Montenegro and relevant legislation, preparation of national forest inventory, introduction of geographic information system (GIS), improvement of planning, establishment of reliable monitoring and control system for the implementation of plans and management practices in forestry and hunting, enhancement of seed and seedling production from autochthonous genetic resources, revitalisation of nurseries for the production of fast-growing species, monitoring the health of forests, etc. Also important are the measures for establishing fire protection systems (video surveillance), enhancement of technologies for exploitation of commercial forests, reconstruction and construction of forest roads, and improved management of protection areas. The renewal and restoration of forests will prevent land degradation processes and have the positive impact on water resources and landscapes/ambient values.

5.2.6 Environmental management system

Environmental management system has many weaknesses, some of the more pronounced ones being: a) incomplete and inadequate legal framework and poor enforcement of the existing regulations; b) lack of capacities of relevant institutions for effective environmental and natural resource management, with inadequate level of co-ordination, both horizontal and vertical; c) underdeveloped information and monitoring systems, which are not in accordance with international practices; d) insufficient funding for environmental protection, both from public and private sources; and e) insufficient (although expanding) mechanisms for public participation in decision-making. Besides these, additional problem is low level of integration of environmental concerns into other sector policies, where sectoral planning and low level of co-ordination still prevails.

The challenges that need to be overcome in order to address current problems and limitations refer primarily to the improvement and better application of existing and the introduction of new mechanisms and tools for the implementation of environmental policy. These are first of all regulatory instruments (regulations and standards) and management tools such as the environmental impact assessment and strategic environmental assessment (EIA, SEA), but also market-based tools (such as eco-taxes and charges, deposit-refund systems for packaging and certain other products, tradable permits, etc.) and voluntary approaches (such as ISO 14000 and 14001, EMAS plan, eco-labelling etc.). The practice in the EU member states shows that environmental policy goals can be attained more rapidly through an adequate combination of different types of instruments, and that market based instruments are particularly efficient when it comes to attainment of goals at the lowest costs.

Furthermore, challenges are present in regard to the implementation of the Aarhus Convention provisions, in particular regarding the need to strengthen public participation in decision-making and improve access to environmental information. Finally, the key challenge are EU integrations, since the experience of the new member states shows that the environment is one of the most complex and most demanding chapters of the Stabilisation and Association Agreement. The stabilisation and association process will require much more funds (from all the sources) to be invested in the environmental protection than was the case so far.



Besides the obligations stemming directly from EU integrations, special attention needs to be paid to integration of sustainability requirements into sectoral policies and to improved inter-sectoral co-operation in the process of environmental protection policy making and implementation in the future. This is a precondition for an effective management system and for achievement of sustainable development goals.

The priority NSSD objective in this field is the establishment of efficient legislative and institutional framework for environmental protection (particularly in respect to free access to information, implementation of EIA, SEA and IPPC legislation and strengthening of other regulatory and market instruments for environmental management). The measures to achieve this objective include: further harmonisation with EU legislation; building administration capacities at all levels, particularly in respect to efficient application of the new legislation; establishment of the Environmental Protection Agency and the Eco-fund; alignment of monitoring programmes and reporting systems with EEA standards; activities to enable free access to information and more significant public participation in decision-making, etc. Certain measures relevant for the achievement of this objective are also given within action plans for other sectors and topics – industry, new technologies, water, air, waste, governance and participation, and others.

5.2.7 Spatial planning

Spatial planning system in Montenegro is based on the hierarchy of plans, starting with the national spatial plan as the plan of highest importance, through spatial plans for special purpose areas (such as national parks and the coastal zone) and municipal spatial plans, down to general and detailed urban plans.

Despite its long-standing and significant tradition of spatial planning, the system of planning, adopting and implementing plans has shown numerous shortcomings. As a result, pronounced negative trends in the management of space have been manifested, primarily through the changes of planned land uses, unplanned and illegal construction and uncontrolled urbanisation.

Such phenomena threaten and devastate some of the most valuable natural resources in Montenegro (e.g. agricultural land, special purpose areas or their immediate surroundings). In addition, natural values and landscapes that constitute Montenegrin heritage and its unique characteristics as an ecological state and tourism destination are also threatened or irrevocably degraded. On the other hand, the quality of life decreases (particularly in urban areas) due to overcrowded neighbourhoods and inaccessibility of infrastructure and amenities, while the risks associated with natural disasters (earthquakes and floods in particular) increase.

Extensive illegal construction in the previous period resulted in a number of illegal buildings throughout Montenegro (particularly in larger urban centres and on the sites attractive for tourism development and recreation), and the process of rehabilitating the existing situation is extremely complex and poses a great challenge for the spatial planning system. Among other things, social implications as well as equity and human rights issues need to be taken into account in the process of legalisation of buildings and/or neighbourhoods constructed outside the planning system (this problem and the measures to address it are covered in more detail in the Chapter 5.3.6 – Urban development).



The problems particularly pronounced in the planning system (which contribute to the development of negative trends) are the following: outdated planning documents for some areas, insufficient coverage of urban plans (and lack of capacities at the local level for the development of the required planning documents) and deficiencies in the enforcement system (non-compliance with plans).

The problems evidenced in the spatial planning were the reason to initiate the planning system reform, within which the new Law on Planning and Spatial Development was adopted (in May 2005). The basic presumption of the reform that is supposed to provide for better functioning of the system is efficient enforcement of plans with participatory process of their drafting, adoption and implementation. The new Law also envisages mandatory environmental impact and strategic environmental assessments (EIA and SEA) of the plans, which is of particular importance in the light of endeavours for integration of sustainability and environmental requirements in the planning documents.

To that effect, special importance is attached to the development of the new Spatial Plan of the Republic as an integral document for spatial development that has a power of a law. The Spatial Plan is currently being developed, and its adoption is expected in 2007. Notwithstanding the facts that an effort has been invested to develop this plan through the use of modern methodologies and that international recommendations on sustainable spatial planning are taken into account, one of the major challenges in drafting and implementation process for NSSD Montenegro is to ensure that the Spatial Plan provisions are compatible with and complementary to sustainability requirements.

Since the general aim of spatial planning is to ensure long term development, through *inter alia* protection of agricultural land and woodlands, protection of watercourses and water springs, and protection of special natural, cultural and landscape values, particular attention in the spatial planning reform needs to be given to promotion of modern trends in planning and introduction of modern concepts such as landscape protection, assessment of susceptibility (vulnerability or renewability) of space and similar. It is also necessary to develop an up-to-date land use policy as a basis for spatial planning.

The priority NSSD objectives in spatial planning are: a) adoption of new and updating of the existing spatial plans at all levels (from the national spatial plan to municipal ones), and integration of sustainability requirements into spatial plans and documents; and b) protection of natural and cultural landscapes.

Measures that need to be undertaken in order to attain these objectives include the adoption of the Spatial Plan of the Republic, together with the preparation of strategic environmental assessment for it, and adoption of the Spatial Plan of the Special Purpose Area for *Morsko dobro* as well as the adoption of new spatial, general and detailed urban plans at the local level (especially in coastal municipalities and the municipalities having national parks within their territory). While updating current and adopting the new planning documents, it is necessary to build capacities (especially at the local level and in the municipalities of the northern region), establish institutions that may contribute to capacity building, and ensure adequate public participation. Finally, a number of activities need to be undertaken to ensure better enforcement



of plans and the establishment of integral information system (land register, spatial planning, urban planning, infrastructure).

When it comes to landscape protection, the appropriate policy needs to be made, and landscape assessment and evaluation conducted, as envisaged under the Landscape Convention of the Council of Europe.

5.2.8 The sea and the coastal zone

The sea of Montenegro includes the interior waters and the territorial sea up to 12 nautical miles off the shore, while the coastal zone covers some 300 km of the coast and the towns and settlements within six Montenegrin municipalities (coastal region). The law from 1992 defined *morsko dobro* (public maritime domain) as a special purpose area covering the narrow coastal belt along the whole coast (the land area of some 60 km²) and the area of the territorial sea of some 2,500 km².

Tourism, maritime activities and to a smaller extent agriculture and fishery, as well as extraction of mineral raw materials (sand and stone; research of oil and natural gas reserves) comprise the main economic activities in the coastal region. In the past, these activities led to a more or less unsustainable exploitation of non-renewable natural resources of the coastal region (primarily of the space and landscape values). Today we may say that to a large extent, the space on the coast as a unique and specific value of Montenegro, has already been “used up” for diverse economic and other human activities, since it has undergone a significant change of natural and landscape values.

An important source of pressures on resources and quality of marine and coastal environment are unresolved issues of waste disposal and wastewater treatment, while other sources of pressures also include ports and other maritime infrastructure, and to a lesser extent, fishery, mariculture, agriculture and industry.

Box 5.2-1: Tourism and urbanisation in the coastal zone

Tourism development in the coastal region calls for significant changes in the space, thus creating ever higher pressures on the coastline. The development of new tourism facilities creates the need for the construction and remodelling of the coast in order to create more beach space. Together with **urbanisation**, which apart from inevitable planned expansion of towns also involves a great deal of unplanned (illegal) construction, the uncontrolled development of tourism and increase of beach areas are the key causes of coast devastation, disturbance of landscapes and the change of natural characteristics which all threaten habitats, biodiversity and natural balance in general.

On the other hand, the natural coast is the most attractive environment for tourists. Preservation of its features and appearance is therefore a precondition not only for the preservation of natural balance but also for the long-term tourism development. The *Tourism Master Plan*¹ for the coastal region envisages 100,000 hotel beds and a total number of more than 200,000 beds in all the types of tourist facilities by the year 2020. The spatial planning documents also envisage a significant increase of tourist capacities, the increase of beach space and the development of nautical tourism facilities in the area of *morsko dobro*.



The adequate control of pressures from tourism development and urbanisation is one of the main challenges in the process of implementing these plans.

Although the SPSPAMD will mitigate pressures from unplanned development in the area of *morsko dobro*, provide for quality development of tourism and nautical facilities and to a large extent provide for the protection of natural landscape and ecologically valuable areas, it is necessary to emphasise that tourism development plans and spatial plans regulating the use of space and development orientation of the coastal region have not yet been subjected to “sustainability tests”, neither through the carrying capacity assessments (i.e. the assessment of the capacity of an area to receive a certain number of visitors) nor through strategic environmental assessment (SEA). The application of these and similar mechanisms (including a good quality environmental impact assessment at the project level) is a key priority in further development and implementation of planning documents and in development decision making in the coastal region.

On the other hand, current coastal zone management system is characterised by sectoral competencies (which frequently overlap), lack of co-ordination, poor enforcement of legislation and lack of capacities of the relevant institutions. Therefore, there are no efficient responses to the pressures that have grown in particular over the past decade, nor to the ones that are longer-lasting or are becoming even more pronounced (particularly those related to tourism development). In order to overcome identified problems and to ensure sustainable management of the sea and the coastal zone, it is first of all necessary to work on overcoming significant institutional, human resources and financial limitations, and to provide for radical changes of the current state of affairs. A particular challenge is resolution of conflicts that emerge from aspirations to implement projects which bring about short-term profit as opposed to the long-term valorisation through protection and preservation of the natural environment.

The priority NSSD objectives are: a) introduction of integral coastal zone management; and b) reduction of pollution of the sea and coastal zone. In order to make progress towards the attainment of these objectives, it is necessary to define the borders of the coastal zone (and to recognise the coastal zone in the Spatial Plan of the Republic) and set a line beyond which construction is not allowed. Furthermore, it is necessary to work on the implementation of the Barcelona Convention, MARPOL and other relevant conventions and their protocols, and develop and implement a number of strategic documents and action plans (including the National Strategy for Coastal Zone Management, CAMP Montenegro, National Plan for Emergency Response in Case of Accidental Pollution from Ships, National Action Plan for Reducing Land Based Pollution etc.). In parallel, it is necessary to introduce a number of regulatory and institutional changes, ensure clear division of competencies and better vertical and horizontal co-ordination among the relevant institutions with the aim of ensuring efficient control and enforcement of regulations. In order to monitor the state of the sea and the coastal zone, it is necessary to provide for comprehensive, continuous and integral monitoring of oceanographic, physical, chemical, biological and other parameters and to keep an integral database of the sea and the coastal zone.

A large number of measures relevant for the attainment of these objectives are also presented in relation to other priority objectives of NSSD, including the sectors and topics like tourism, transport, water management, protection of biodiversity, spatial



planning, environment management system and industry. In order to protect natural values and autochthonous landscape of the coastal zone, it is first of all necessary to assess the sustainability of each future investment and development project through the use of instruments such as environmental impact assessment and assessment of the area's carrying capacity, particularly when it comes to the development of new tourism and nautical tourism facilities. At the same time, it is essential to put a stop to further degradation of the space in the coastal zone by the application of adequate spatial planning documents, ensure the protection of coastal wetlands (Ulcinj, Buljarica, and Tivat's Solila) and other particularly valuable coastal ecosystems, and establish Marine Protected Areas (MPA) to protect marine ecosystems and biodiversity. Moreover, it is necessary to implement specific projects for reduction of land based pollution (e.g. waste disposal and wastewater treatment, introduction of standards and environmental management in industries) and enforce international and national legislation in maritime transport.

5.2.9 Climate change and protection of the ozone layer

Due to the small scale of its economy and a significant share of hydropower in the total domestic power generation, Montenegro does not emit significant quantities of greenhouse gasses that contribute to climate change. Nevertheless, as an energy-intensive economy (and thus as an emissions intensive economy), Montenegro has an obligation and a possibility to give its contribution to efforts for mitigating this major global environmental problem. On the other hand, Montenegro may suffer significant consequences from climate change in the long run. Possible areas of influence relate to rising of the sea level, increased temperatures and changes in agriculture and hydrological regime, negative impacts to mountain regions, etc. Besides climate change, another global problem – ozone layer depletion – is an area where certain activities need to be undertaken in order to contribute to the overall endeavours aimed at putting this problem under control.

The main source of emissions of carbon dioxide as the most significant gas that contributes to climate change is combustion of fossil fuels (for power generation, industry and transport). Carbon-dioxide emissions from transport are continuously growing globally as well as in Montenegro. Other significant greenhouse gasses are methane and nitrogen oxides, with sources such as waste disposal and agriculture. As for the substances that deplete the ozone layer, the main sources of CFCs, halons and other substances are the refrigeration and cooling devices industry, aerosols, foams and solvents.

As mentioned earlier, ratification of international conventions on air quality, climate change and ozone layer i.e. compliance with the obligations stemming from them, are important objectives for the coming period (this particularly holds true for compliance with the UN Framework Convention on Climate Change and the Vienna Convention on the Protection of the Ozone Layer). In accordance with that, the priority NSSD objective for this field is the fulfilment of obligations under the international agreements on climate change and reduction in the use of ozone depleting substances.

The measures that need to be implemented in order to attain this objective include drafting the National Communication on Climate Change (containing the inventory



of greenhouse gasses, a plan to reduce emissions and a programme for mitigating the consequences), ratification of Kyoto Protocol and implementation of the programme for phasing out the ozone depleting substances.

5.2.10 Waste

Montenegro is facing considerable problems with managing all the types of waste. Current system of waste collection and disposal is such that it does not provide for waste separation and separate treatment of different types of waste, while in principle the disposal of non-hazardous industrial, municipal and hazardous wastes alike does not meet the minimum environmental standards. As for municipal waste, the percentage of population covered by the organised system of waste collection is rather low and unsatisfactory.

The database on different sources, quantities and sites where waste is disposed of (be it registered landfills or a large number of smaller and illegal dumps) is poor. Provisionally estimated quantities of waste generated in Montenegro each year are: solid communal waste – around 185,500 t (19,000 t of it being hazardous waste); industrial waste – 175,000 t; red mud (KAP) – 370,000 t; sludge – 1,650 t; energy sector waste – 350,000 t; medicinal waste – 550 t; there are no data for construction and animal waste¹⁸. Re-use and recycling are found on a very small scale, while energy recovery programmes and recovery of raw materials from waste are almost non-existent.

Besides major systemic issues in waste management and negative environmental impacts related therewith (soil, groundwater and surface waters pollution, public health hazards), another important issue relates to low awareness of the need to reduce waste generation and provide for its appropriate treatment/disposal. The results of such a state of affairs are highly visible both in urban areas and in natural environments throughout Montenegro, where scattered waste represents a frequent “supplement” to the landscape. The *Solid Waste Management Master Plan*, *National Waste Management Policy* and the Law on Waste Management all aim at addressing these issues.

Main challenges in waste management are successful implementation of the Law on Waste Management (adopted by the Parliament of Montenegro in December 2005, entering into force as of November 2008), the provision of funds for the implementation of projects and programmes envisaged by the *Master Plan for Solid Waste Management* and building capacities of public utility companies as the main providers of municipal waste collection and disposal services. In addition, there are also significant challenges relating to the selection of sites for future regional landfills that are acceptable for the local population, from the point of view of environmental protection and which incur the lowest costs. Another important challenge is the development of the programme for recycling of all the waste categories, since recycling was so far done on a very small scale. With industrial and hazardous waste in particular, main challenges relate to the implementation of new regulations and necessary improvements in managing these categories of waste.

The main tasks set by the new legislative and strategic framework for waste

18) Sectoral study (SS-AE) 5.0: Waste Management - Structure and Quantities of Waste in Montenegro; *Master Plan for Solid Waste Management*



management in Montenegro include waste reduction, waste separation, adequate disposal and recycling in order to reduce pollution from waste and to preserve the resource base. In that context, the priority NSSD objective is further harmonisation with the EU legislation, together with strengthening capacities for proper waste handling and enhancing the waste database. The measures that need to be implemented in order to make progress in achieving this objective include: a) enactment of relevant by-laws; b) drafting national and local waste management plans; c) construction of sanitary landfills for municipal waste and construction of hazardous waste landfill; d) establishment of proper waste database; and e) activities on awareness raising regarding proper waste disposal and on stimulating recycling. Apart from these measures, it is important to point out that the *Master Plan* also envisages rehabilitation projects for current dumping sites and construction of recycling centres, but these activities have been envisaged for implementation after the year 2010.

5.3 Social development: identification of problems and challenges, priority objectives and measures

5.3.1 Governance and public participation in decision-making

The implementation of the sustainable development concept requires a radical reform of the governance system at all levels. This implies new organisation of the society, state administration and local governments in the formal and institutional, but also in the substance and structural senses, particularly regarding the process of formulating, adopting and executing political decisions. Apart from the constitutional and legal reform at all levels, it is necessary to build capacities of state and other public institutions, develop human resources and build their professional capacities on qualitatively new grounds, introduce new decision-making methods to provide for the actual and equal participation of as many citizens as possible in the process, especially when their lives may be directly affected by such decisions.

The concept of sustainable development requires a more precise definition and considerably larger and wider competencies of the state and its institutions in the economic, social and environmental arena. Imperfections of the market and the need for state intervention in the allocation of resources to maximise the benefits to all the members of a society are recognised in developed market economies. Having in mind, on the other hand, a high risk of unsustainable development faced by the transition economies, Montenegro needs to pay much more attention to the issues of regulation and intervention than was the case so far. The understanding and exercise of private property and individual interests as absolute rights may jeopardise the prospects of Montenegro to develop in a sustainable way. Sustainable development first of all means finding a balance between societal (including future generations) and individual interests in all the areas of social interactions, in order to strengthen political, social and cultural cohesion of the society and to provide for all the dimensions of human rights to all the members of society.

It is also necessary to create regulatory and *de facto* prerequisites for real decentralisation of power in Montenegro. In the decision-making process, attention needs to be paid to development and promotion of methods such as reaching agreements, negotiating, harmonisation of conflicting interests, co-operation and co-ordinated action of central



and local authorities with the involvement of other stakeholders – the civil sector, professional associations and trade unions, research institutions, and business sector.

The implementation of sustainable development concept is unimaginable without the real and more active participation of the civil sector and non-governmental organisations that must become equal partners to state institutions; it also presumes a much higher capacity and competencies of the civil sector.

Finally, the sustainable development concept requires a wide range of educational and awareness raising activities at all levels – from primary school to political decision-makers – in order to create a new and qualitatively different system of thinking, acting, working habits, responsibility and in particular a different value system. Other prerequisites of sustainable development and requirements for a higher degree of regulation and intervention¹⁹ in the economic, social and environmental arenas have been discussed within other sectors and topics.

The priority NSSD objectives are: a) improve enforcement of laws and implementation of strategic documents, plans and programmes; ensure adequate public participation in the process of their preparation; b) prevention of corruption; and c) decentralisation.

The progress in the attainment of these objectives will to a large extent depend on the political will for consistent and non-discriminatory application of laws, policies and plans (with strict application of the principle of top-down responsibility in case of non-compliance with adopted standards), as well as on further development of political culture in which public interest has a priority over individual and group interests. Increased transparency in the decision-making and policy implementation processes, reduction and additional control (particularly judicial) over discretionary powers of executive government bodies and non-discriminatory responsibility of all in the cases of corruption and abuse of power are also the preconditions for successful attainment of these objectives.

The measures for attainment of the first objective include: a) consistent application of sanctions in cases of non-compliance; b) improving enforcement of legislation and implementation of strategic documents, primarily through capacity building; c) continuation of public administration reform focusing primarily on the needs stemming from EU integrations; and d) enhanced transparency and public participation in decision-making. To attain the second objective, it is necessary to adopt the anti-corruption policy, apply consistently the Law on Free Access to Information, conduct anti-corruption campaigns, improve legislation in the field of anti-corruption, strengthen the institutions for the implementation of anti-corruption policy and increase the efficiency of the judiciary (changes and amendments of the Criminal Code, especially in the field of capacity building in the Prosecutor's Office and introduction of secret surveillance measures). Finally, regarding the decentralisation it is necessary to: apply consistently the Law on Local Self-government; build institutional and financial capacities of local authorities and build capacities at the local level; and strengthen inter-municipal co-operation.

19) Such as: provision of mechanisms for equitable distribution of benefits from economic development; ensuring the right to development and access to basic services and assets; and ensuring integration of sustainability requirements into development policies.



5.3.2 Education

The development of market economy and entrepreneurship, the need for the development and application of new technologies, and ever more present globalisation and European integration processes are increasingly shaping economic and social developments in Montenegro, and have set new goals and posed new challenges for the education system. A more rapid economic development and escape from poverty may not be achieved without proper education and good governance. Educational reform, efforts to establish the “learning society” (life-long learning) and to achieve quality education responsive to individual needs, are concrete responses to the challenges of our time. Education is the foundation and the vital factor for both the economic development, and social, environmental, cultural and ethical visions of sustainable development of Montenegro. Any economic growth in the future must be based on knowledge and be in harmony with “sustainable development” of the society. The importance of education in the implementation of the sustainable development concept was recognised globally and thus the UN designated the period 2005 – 2014 as the decade of *Education for Sustainable Development*.

Total budgetary spending on education in the past, although very high in relative terms²⁰ and above the OECD average, have not been adequate to cover the needs and ensure the development of modern education system. At the same time, the expenditures for research and development were very low. This gave rise to a number of problems identified in the past, which were and still are the subject of the ongoing comprehensive education sector reform. Particularly pronounced were the following problems:

- School infrastructure, in a considerable number of schools, does not meet the needs of modern teaching (in certain regions there is a lack of school infrastructure and lack of teaching aids, while the school network does not keep pace with the demographic changes);
- Outdated curricula, inadequate inclusion of ICT in the education system, as well as insufficient attention paid to civic education, human rights, democracy, peace and tolerance topics;
- Inadequate integration of Roma and marginalised groups in education system;
- Lack of attention and insufficient inclusion of children with special needs in regular educational institutions;
- Lack of skills-based knowledge, lack of curricula to prepare the young people for market economy and entrepreneurship,
- Inadequate funds for scientific research and development.

From the point of view of sustainable development, a special problem is the fact that environment and sustainable development were not properly and sufficiently included in the old curricula.

The education system reform in Montenegro is addressing the identified problems in a systematic and comprehensive manner. The new legislation has been adopted, and curricula modernised and developed in accordance with up-to-date European educational curricula through the inclusion of ICT, provision of the possibility to have

20) Expressed as a percentage share of budgetary expenditure for education in GDP.



optional subjects, introduction of topics relating to civic education, human rights, democracy, peace and tolerance, market economy and entrepreneurship. At the same time, steps have been taken towards introduction of skills-based knowledge. The reform has also contributed to the integration of Roma and marginalised groups in the education system, inclusion of children with special needs in regular school system, improvement of the school infrastructure (reconstruction of existing and construction of new school buildings) and to an increase in the number of children included in pre-school education.

Despite numerous limitations, the education reform is conducted according to the plan and a number of short-term, medium-term and long-term reform goals is to be attained in the coming period inline with the *Strategic Plan for Education Reform for the Period 2006 – 2010*. With the implementation of this document numerous goals and objectives that are the subject of international conventions and declarations in the field of education will be achieved. The education reform increases the education level of the population, guides its sustainable development and contributes to EU integration.

The Ministry of Education and Science will define more closely the objectives, the activities and the indicators related to sustainable development through the development of a special *Strategy of Education for Sustainable Development 2005 - 2014*. Besides the regular education system, considerable attention will be given to the development of the system of informal education to enable life-long learning and recognition of newly acquired knowledge in the system of national vocational qualifications. Enhancement of formal and informal education (in respect to both quality and coverage), full affirmation and better valuing of knowledge as well as ensuring more significant support to research and development are some of the challenges Montenegrin society is facing when it comes to education. Overcoming these challenges is a prerequisite for faster EU integration (“knowledge based society” is one of the basic concepts of the EU), and for creation of a system of values suitable for sustainable development.

The priority NSSD objectives have been identified from a wider set of educational reform goals and they include: a) quality education for all children; attainment of Millennium Development Goals and the *National Action Plan for Children* goals; and b) increase of sustainable development topics and contents in the educational curricula from pre-school to university levels.

The measures for the implementation of the first objective include: a) provision of all-inclusive elementary school education (particularly regarding Roma children); b) provision of assistance to poor children through provision of free of charge textbooks; c) implementation of inclusive education; and d) conducting teaching in accordance with the new curricula. For the implementation of the second objective, i.e. for the increase of sustainable development topics and contents in the curricula, it is necessary to: develop curricula for optional subjects for primary schools and general secondary schools, include sustainable development topics within free parts of syllabi from pre-school to university levels, ensure proper implementation of curricula and strengthening co-operation with the NGO sector through the implementation of joint projects relating to environment and sustainable development.

Measures linked to support for research and development are presented under the priority objective for new technologies.



5.3.1 Health care system

Health care policy and strategy for the development of health care system in Montenegro – *Health for All in the 21st Century* – are in line with the Millennium Development Goals and are aiming to enhance and preserve public health, while making the adjustments and improvements in the health care system operation in accordance with available financial means.

The organisation and financing of the health care system are based on the dominant role of the public sector. In the conditions of a low GDP and considerable pressures on public spending, this fact poses significant challenges. The ongoing reform of the health protection system will enable integration of private and public sectors, and will help with overcoming the problems of the health care system inherited from the past.

Demographic and geographic factors affect the organisation of a health care system and its costs, and there is a number of exacerbating conditions linked to these factors in Montenegro. Due to the increase of life expectancy and the reduced birth rates, the share of older population increases. According to the last census, the share of people over 65 years of age in general population is 12.8%, and the older people have 3.5 to 4.5 higher health care needs than the population under 65. Furthermore, in order to comply with the principle of accessibility of health care services, certain health care facilities need to be developed for around 38% of the population (according to 2003 census data) living in rural areas. Meeting the health care needs of rural population significantly increases the costs. Finally, there is the issue of some 30,000 refugees and displaced persons who are also entitled to health protection.

Risky behaviours and the presence of risk factors in the living and working environments considerably affect the state of public health. One of the significant problems in Montenegro are preventable deaths (i.e. deaths caused by certain life styles - smoking, malnutrition, lack of physical activity, alcoholism, drugs abuse). According to the data of the Public Health Institute, 10.5 years of life were lost due to early deaths in 2002 (mainly due to cardio-vascular diseases and cancers). Despite the well evidenced relation between behaviour patterns and health, the health care system is to a great extent geared towards the provision of curative services, while the activities to promote health are mainly not funded through the system (although these constitute more accessible, more efficient and cheaper form of health protection).

The analysis of health data shows an improvement in public health. One of the most sensitive indicators of health conditions and development of health care services, as well as the overall social, economic, educational and cultural development of a society is the infant mortality rate. The value of this indicator for 2004, the last year for which there is available data, shows a significant decrease in infant mortality. The recommendation of the WHO for the countries similar to ours is that this rate should be less than 10 (10 stillborn on 1,000 infants), while our Health Care Policy has set the goal of decreasing the infant mortality rate to below 8. In 2004, the infant mortality rate was 7.8, meaning that for this year, the set goal was achieved. Together with the infant mortality rate, mortality rate for children under 5 years of age has also decreased. This too is a very sensitive indicator according to which UNICEF ranks the countries. In addition, maternal mortality rate has been zero for several years already,



which means that there were no deaths in Montenegro caused by pregnancy, delivery and post-delivery period. Leading causes of deaths in Montenegro are the same as in the developed European countries – cardio-vascular diseases and cancers.

Public health statistics is not well-developed. This applies both to monitoring the relations between environment and health, and to entire health protection statistics. In order to provide for adequate monitoring in the system of protecting and improving human health and of the quality of health care services, it is necessary to work on the development of professional standards, development of information system, drafting of regulations on data collection, maintenance and retrieval, adequate evaluation of health programmes and more realistic reporting.

Prevention and reduction of risk of spreading contagious diseases (like HIV/AIDS, SARS, and avian influenza) poses a special challenge for the health care system.

The priority NSSD objectives are: a) improve the health-related quality of life (while promoting healthy life styles); and b) preservation and improvement of public health with particular emphasis on vulnerable groups. The measures that need to be undertaken in order to attain the first objective include the promotion of healthy lifestyles in order to alter risky behaviours, improvement in the control of health safety of food, drinking water and consumer goods, and research into the impacts of external (environmental) factors on health alongside with preparation of the national action plan for health and environment. As for the second objective, a number of actions aimed at prevention, timely detection, treatment and suppression of diseases need to be undertaken. Moreover, actions geared towards the provision of adequate health protection for vulnerable groups, upgrading the level of mental health and provision of adequate care for different types of traumas (especially the ones caused in car accidents) need to be undertaken. The measures and actions envisaged for the attainment of the second objective have mostly been defined in the legislation dealing with public health protection, but due to their extreme importance for general development, they need to be highlighted and their implementation needs to be monitored through the health protection system.

5.3.2 Equality and social protection

Changes brought about by transition led to the negative trends regarding **exercise of equal rights** (including the right to employment, right to development and other fundamental human rights), to social stratification and the emergence of the category of “losers of transition”. Some of the problems of social inequality, however, have deeper and systemic roots.

Such are, for instance, the problems related to gender inequality and social exclusion of Roma (although the extent of the latter has increased recently with the influx of refugees and displaced persons). From the equity standpoint, refugees and displaced persons represent a particularly vulnerable category, whose difficult economic situation is frequently related to the issues of social marginalisation.

One of standard inequality indicators – Gini coefficient – was 0.29 in 2002, which is similar to other countries in the region. However, decile ratio i.e. ratio of the average



consumption of 10% of the richest and 10% of the poorest in Montenegro was rather high (7) - much higher than in other countries in the region. Poverty rate was 12.2%, while one third of the population was assessed to be economically disadvantaged²¹.

The key problems in **social and child protection** (regarding its role in mitigating poverty-related problems and consequences) are manifested primarily through the inability of the current system to cover all the most vulnerable segments of population. The main form of social (financial) assistance is family allowance (MOP or material family benefit), currently used by some 35,000 persons (around 11,500 families). To that, additional 4,500 persons receive allowances on the grounds of inability to take care of themselves. Monthly allowances received on these two grounds are very low and range from 50 to 95 euros (depending on the number of family members). Other forms of social assistance include childcare, one-off financial assistance and the services of centres for social work. The right to unemployment assistance is exercised through institutions which are outside the social protection system, but is highly restrictive and the allowances are very low.

A serious impediment for a more efficient poverty reduction through the social protection system is also an underdeveloped system for monitoring the social protection needs and activities (except for those that refer to the exercise of rights regulated under social welfare system). Another limiting factor is the fact that all social protection services lack staff for carrying out the complex and responsible roles on user protection.

Majority of programmes and services in the field of social and child protection are exercised through the institutional system. Development, creative and alternative programmes and projects in social and child protection are sporadic and most often supported by the international institutions or organisations. Although the law allows it, the inclusion of other stakeholders (such as the private and the civil sector) in the provision of services is inadequate since there are no standards to enable quality assurance of such services.

Municipalities regulate and provide some of the extended social protection rights like provision of assistance in the household for elderly and ill, assistance with housing issues for the needy people and other forms of additional protection. These segments of social protection are rather undeveloped and cover a small number of users, the situation caused by the lack of funds in municipalities.

In order to contribute to fulfilment of the one of fundamental principles of sustainable development – equal exercise of rights to development and access to basic services and funds – the priority NSSD objectives have been defined as: a) enhancing the quality of social protection services and economic empowerment of needy persons; and b) strengthening gender equality.

Measures that need to be undertaken to attain the first objective include the adoption of the Strategy for the Development of Social and Child Protection, as well as the adoption of the Strategy for Integration of Disabled Persons. In addition, a number of measures need to be implemented in order to improve the status of displaced persons and their local integration, which include the establishment of appropriate centre within

21) Source: DPRS



the Commissariat for Displaced Persons, employment programmes, provision of basic housing and access to the social protection system. Special attention needs to be paid to improved employment of RAE population.

When it comes to gender equality, the measures that need to be undertaken in the coming period include the enactment of the Gender Equality Law and drafting and implementation of the National Plan of Action for Gender Equality. Moreover, mechanisms for equal influence of women and men in decision-making on the economic development and distribution of economic benefits need to be developed.

5.3.3 Culture and media

Historically, the cultural space of Montenegro has been developed under the influence of the Mediterranean, Central European, East European and Oriental civilisations and cultures. Multiculturalism is, thus, an intrinsic feature of the cultural heritage and the life style, which, together with the rich natural heritage, makes one of the most significant comparative advantages. The system of protecting the cultural heritage and developing the art at the national level involves a number of institutions established and funded by the state. The aim of each of these institutions is to take care of the diverse forms of cultural heritage in their own domain and to take part in the development and advancement of culture and artistic creation.

At the same time, cultural heritage management and preservation of cultural identity constitute significant challenges in the transition period. Some of the main problems faced in this area are as follows:

- Lack of awareness of the value of cultural diversity;
- Disappearance of traditional values, customs and events;
- Lack of knowledge about the minority communities culture, and inadequate availability of the minority communities culture to the wider public;
- Low level of cultural monuments protection that has led to damages and degradation of a significant number of monuments;
- Non-existence of adequate database on all the segments of cultural heritage;
- Lack of archaeological map and database on archaeological sites; no proper records on submarine archaeological sites;
- Inadequate presentation of cultural heritage and artistic creation.

As for the media, one important challenge is linked to the contribution the media may give in the fulfilment of the free access to information and promotion of the concept of sustainable development. A considerable challenge is also the development of professional journalism. Within the current initiatives to increase professionalism of the media, special attention needs to be given to training of journalists regarding sustainable development issues.

Having in mind the given problems and challenges, the priority NSSD objectives in the field of culture and media are: a) preservation of cultural heritage and cultural diversity; and b) increasing professionalism of the media and providing for a more substantial contribution to raising public awareness on sustainable development and to free access to information. The measures needed for the implementation of the first objective include the development of the National Strategy on cultural policy



and drafting a set of laws on cultural heritage. In addition, the database of cultural heritage and archaeological map of Montenegro need to be developed, campaign aimed at promotion and preservation of cultural diversity launched, and the Management Plan for the World Heritage Site (Kotor) completed. In the field of media, the Law on Illicit Media Concentration needs to be adopted, the training programmes for journalists developed (especially on "research journalism", contribution to free access to information and sustainable development issues) and more media attention needs to be dedicated to sustainable development.

5.3.1 Urban development

According to the data from the last census, 62% of the total population in Montenegro live in urban areas. The quality of life of this segment of population is adversely affected by numerous problems of urban development. On the other hand, uncontrolled and unplanned expansion of urban settlements and non-compliance with sustainable construction standards has a negative impact on the space and environmental quality in general. All these issues share the same root: planners and governing bodies have not managed to control and channel the process of excessive and rapid urbanisation, which has led to unsustainable use of space on one hand and decrease of the level of urbanism and quality of life on the other.

In order to put a stop to negative trends, it is necessary to address numerous weaknesses and problems in several interconnected areas: a) spatial planning, enforcement and illegal construction, and the subsequent urbanisation pressures on the space (particularly where it is very limited and valuable – coast, protected areas and their surroundings) and on the agricultural land; b) rapid growth of urban population and the beginning of emergence of settlements for marginalised groups; c) lack of proper infrastructure in (parts of) urban areas; d) housing issues, particularly for the poor and the young; e) insufficient quality of the urban structures, incomplete and unbalanced spatial distribution of different facilities and functions; f) inadequate and energy inefficient construction; g) insufficient safety in urban areas; h) insufficient care for fulfilling the needs of the population groups with special needs; i) neglected public areas etc. Finally, there is the lack of citizens awareness on belonging to a certain urban environment – the feeling needed to develop care, but also the responsibility for protection and enhancement of space.

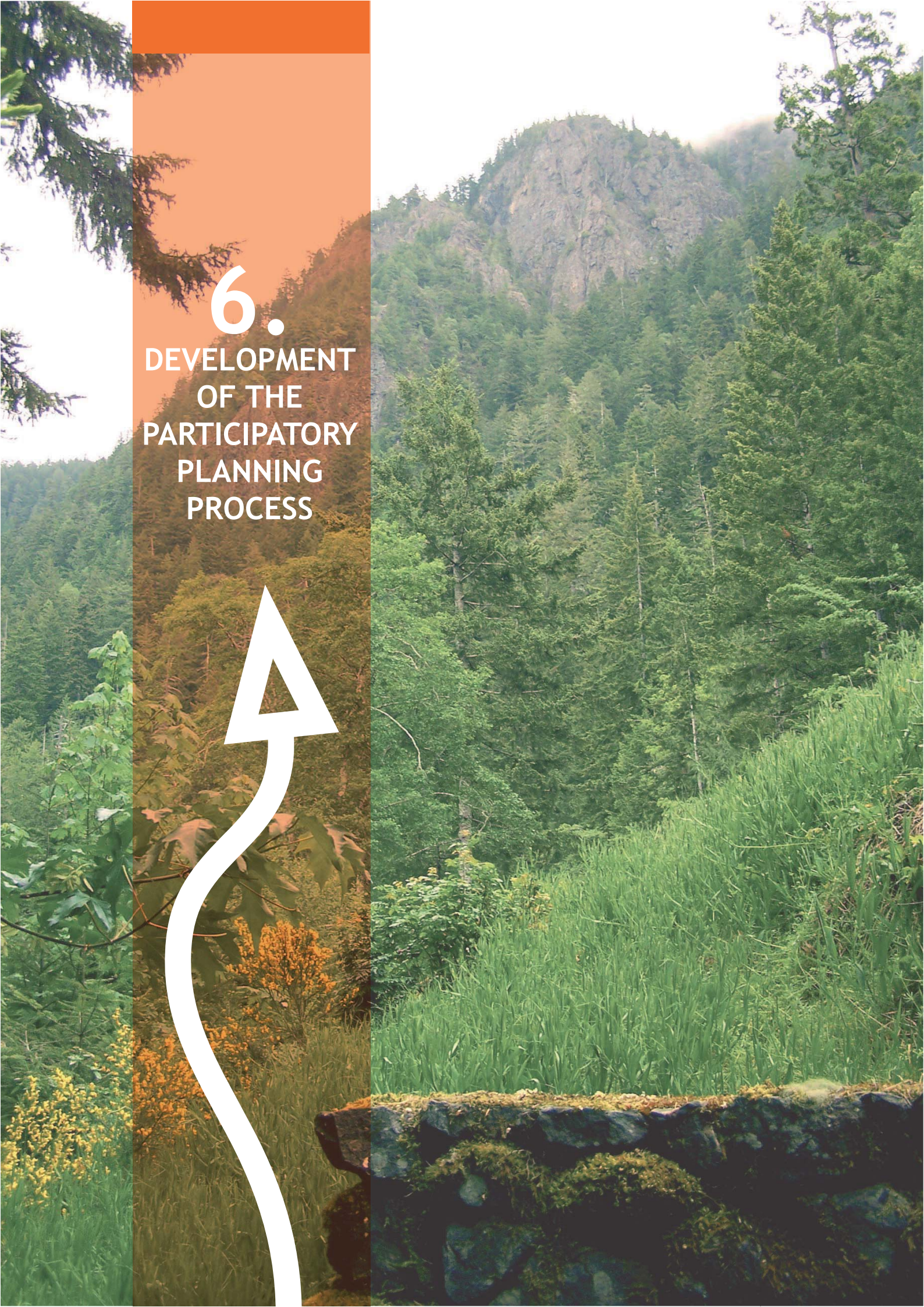
The challenges that need to be overcome to address these issues properly primarily refer to the need to overcome a narrow perspective on spatial planning, sustainable and urban development that political structures often have, and failing to recognise the necessity of addressing spatial issues in a highly professional manner. Another challenge is the lack of capacities of local authorities, as well as inadequate capacities of professional circles (lack of experts and lack of knowledge related to sustainable space development and global trends in urbanisation). No lesser challenge is the need to develop a clear monitoring system in urban areas to observe positive and negative trends and formulate proper responses.

Starting from these problems and challenges, the following priority NSSD objectives have been defined: a) halting illegal construction and legalisation of buildings by observing the principles and goals of the Vienna Declaration and by using positive experiences of other countries in combating illegal construction; and b) improving the



quality of life and safety in urban areas, focusing on the living conditions of specific (marginalised) target groups; establishing a responsible attitude of the citizens towards the urban environment²². Measures that need to be undertaken in order to implement the first objective are the development of the national strategy for addressing the issue of illegal construction, development of a database on illegal buildings, and legalisation (by setting adequate criteria and observing them and by respecting the human rights). As for the second objective, the measures refer to removal of architectural barriers (curbstones) to facilitate the movements of disabled people, improvement of the basic infrastructure, particularly in the settlements/neighbourhoods where refugees, displaced persons, and Roma live, improvement of safety and activation of public spaces (i.e. provision of quality amenities in urban areas).

22) Adoption, updating and consistent application of urban plans and other spatial planning documents, also recognised as one of the key areas of action to overcome the problems of urban development, is included and discussed as a priority objective in the section on spatial planning (Chapter 5.2.7).



6.

DEVELOPMENT
OF THE
PARTICIPATORY
PLANNING
PROCESS



6.1 Mobilisation of stakeholders

In the process of drafting the NSSD Montenegro, efforts were made to mobilise as wide a number of stakeholders as possible to contribute to formulation of the Strategy and the Action Plan through diverse forms of consultations and public participation. . To that effect, the first and the second project workshops were held, as well as two meetings of the project Steering Committee. The basic documents, the first and the final draft of the Strategy were discussed by the National Council for Sustainable Development.

In the period between August and November 2005, a total of 7 participatory meetings were held covering all the municipalities in Montenegro. Participants included representatives of local authorities, NGOs and other organisations at the level of the local community, professional associations, businesses, the media and other stakeholders. The participatory process was organised and led by the NGO Most and a large number of issues related to sustainable development of Montenegro were discussed. The second round of participation, again organised by the NGO Most, was held in February and March 2006 through three regional conferences. The civil sector, as well as the representatives of local governments, showed great interest and motivation to contribute to the NSSD process.

In the NSSD drafting process, significant involvement of different stakeholders was achieved through the composition of the expert team and the advisory forums. Wide stakeholders involvement first of all referred to various segments of public administration, but also to academics and experts from specialised institutions. The participation of the business community and/or private sector in the so far process was not at the satisfactory level and was mainly limited to the participation of a few business associations in the Steering Committee work and in the process of setting priorities. Few businesses also took part in the participatory process at the local/regional level and at the national workshops. Establishment of on-going dialogue and partnership between the public and the private sector regarding the attainment of NSSD goals is on the other hand essential for successful implementation of the Strategy.

With this in mind, in the coming period it is necessary to maintain the interest and the active role of already involved stakeholders, as well as to ensure the inclusion of even larger number of stakeholders at all levels. The Office for Sustainable Development and the National Council for Sustainable Development have the competencies and the structures needed to contribute to this.

6.2 Participatory planning process

The discussion during the first round of the participatory process was organised in such a way to cover different topics in the field of economic and social development and environmental protection/natural resources management, inline with local and regional interests and priorities. The problems present in the considered sectors/topic were examined, as well as the challenges for overcoming them, and the objectives and measures to be undertaken for the attainment of objectives were defined (identifying the responsible agencies and timeframe for their implementation). As a result, many detailed and interesting views and proposals were collected and were eventually



submitted to the expert team in the form of individual and one summary report (prepared on the basis of all the participatory meetings held in the first round). The expert team endeavoured to integrate the main messages from the participatory process in the First Draft of the Strategy.

As was already mentioned in the Chapter 3 - Methodology and Process of Preparation, representation of different stakeholders in the planning process was also ensured with the organisation of round tables in January 2006, where priorities were determined from the set of goals and objectives encompassed in the first draft of the Strategy. Besides the members of the expert team, the members of the Steering Committee and the representatives of the participatory process organised at the local level have also had the possibility to give their contribution in setting priorities.

The second round of the participatory process - the three regional conferences - focused on commenting the first NSSD draft and recommending measures for the achievement of priority goals/objectives. The views of participants to the regional conferences were also submitted to the expert team through the participatory process co-ordinator - NGO Most. The expert team considered these comments and recommendations in drafting the Action Plan and revising the first draft.

The expert team made an attempt to integrate as much as possible the recommendations and comments received from different sources (national workshops, individual members of the expert team, round table discussions held in January, participatory process and the sessions of the Steering Committee and the National Council for Sustainable Development and others) when developing the second, final NSSD draft and the Action Plan (which comprises an integral part of the Strategy).

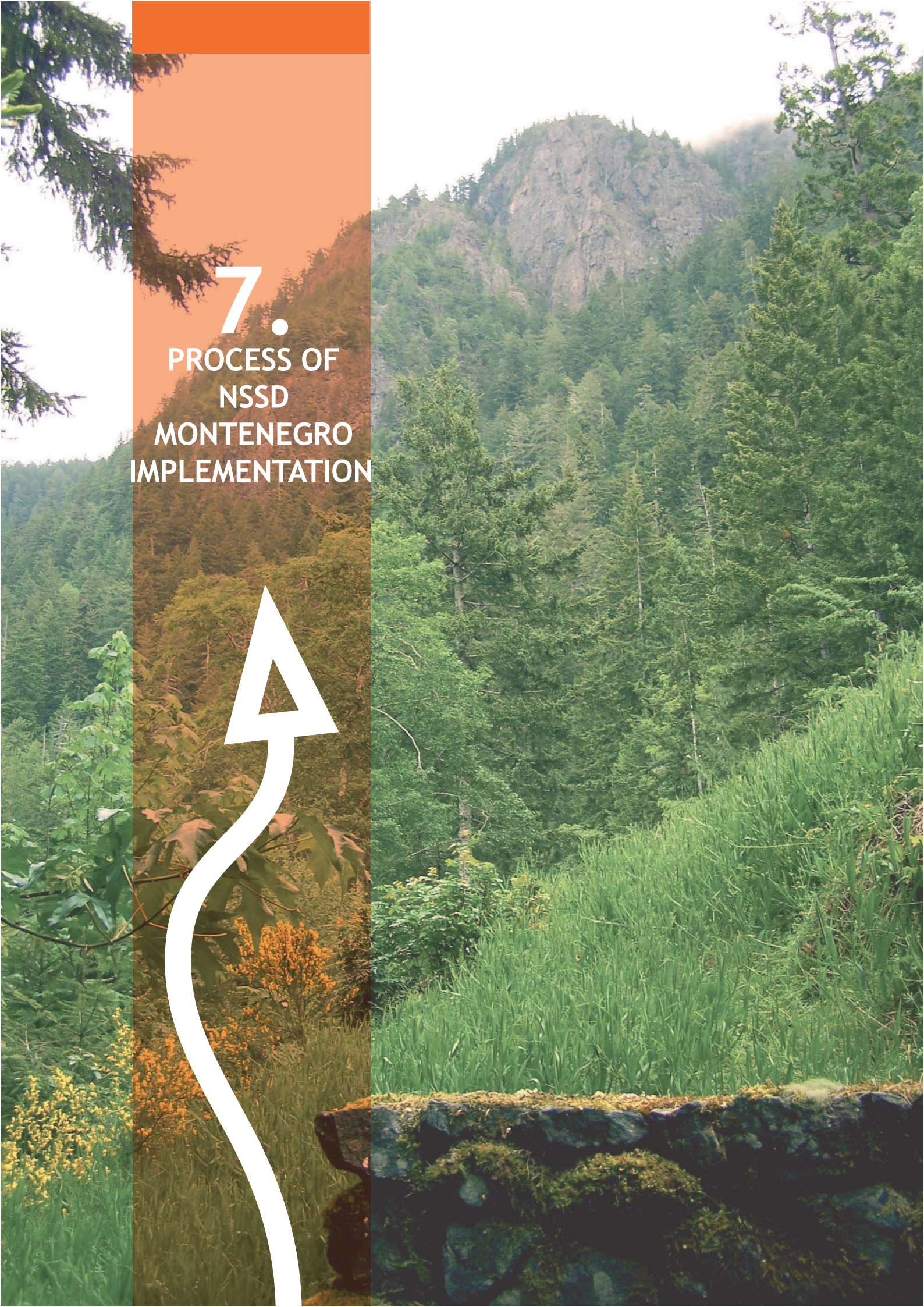
6.3 Access to information and communication policy

The information on NSSD Montenegro has been communicated to the participants in the process through several channels. Promotional materials with key messages of the process were prepared in August 2005 and were disseminated to the participants and other interested parties. NGO Most set up a web site (www.nsor.info) where diverse information on the process was available. Several press conferences were also held, and the participants were also informed on the progress through regular monthly reports. In addition, all the other available information relevant for the process was exchanged among the participants as needed. At the meetings of the MCSD held during the NSSD drafting process and at the XIV regular session of the signatory parties to the Barcelona Convention, MEPPP informed, through formal and informal contacts, the MAP member states on the progress made in drafting the Montenegrin Strategy. MEPPP regularly exchanged information on the drafting process with the international partners who supported the process (this, among others, includes the Stocktaking Report that the MEPPP submitted to UNEP/MAP in October 2005)

In the implementation phase, it is important to ensure further exchange of information among all the interested parties and to further enhance of the communication policy. The most significant forum for the exchange of information among the actors is the National Council for Sustainable Development, particularly when it comes to harmonisation of sectoral policies, plans and strategies with NSSD. The annual



progress reports on Strategy implementation, which will be prepared by the Office for Sustainable Development (in co-operation with MEPPP and other relevant ministries and institutions), will be a basic tool for information exchange. The Office for Sustainable Development also needs to focus on the communication with the international partners and ensure a co-ordinated approach of all the segments of administration in the presentation of NSSD in the international contacts. The media can and should give a more significant contribution than was the case in the drafting stage of the document.



7.

PROCESS OF
NSSD
MONTENEGRO
IMPLEMENTATION



Having in mind the so far experiences with dissatisfactory level of implementation of strategic documents, a large number of participants in the NSSD drafting process highlighted the importance of consistent implementation and argued in favour of mechanisms which would ensure that this document becomes a binding one. While the factors needed to improve enforcement of laws and policies in general are discussed in Chapter 5.3.1 (Governance and public participation in decision making), during the drafting process it was concluded that the manner in which the NSSD will be adopted might significantly influence its implementation. It has been pointed out that it is highly important to secure engagement and coordinated action of all the social actors, primarily those with the executive and legislative powers. Such an approach would enable the achievement of the objectives of sustainable development and full societal recognition of sustainable development.

7.1 NSSD Action Plan and co-ordination of implementation

The Action Plan for the NSSD implementation (Appendix 1) gives an overview of priority objectives and measures for their implementation by sector/topic, as well as the link between particular objectives and general NSSD goals. The Action Plan also envisages the timeframes and agencies responsible for implementing the given measures, and indicators to monitor the level of implementation. The basic cycle of implementation monitoring is a one-year period, and every five years it is planned to undertake a detailed assessment of the implementation. The first NSSD Action Plan was prepared for the period 2007-2012. The progress achieved in the NSSD implementation will be the subject of annual reports to be made by the Office for Sustainable Development (with support from MEPPP and in co-operation with other relevant ministries and governmental agencies and institutions). At the end of the three years to which the Action Plan refers (i.e. in late 2010) a detailed progress report will be made and the changes and amendments to the Action plan for the remaining two years of the first implementation period will be drafted. A thorough review of the document is envisaged for late 2012. The NSSD implementation reports will be discussed at the sessions of the National Council for Sustainable Development and submitted to the Government of the Republic of Montenegro.

Overall co-ordination of implementation efforts will be the task of the Office for Sustainable Development (in co-operation with MEPPP and other relevant ministries and institutions), which is well positioned to carry out this task given its place in the organisational structure of the Government and the role it plays in the work of the National Council. It is recommended that the key ministries, other governmental agencies and institutions, and public institutions being assigned responsibility for implementation of a large number of NSSD activities, should appoint the contact person to communicate with the Office for Sustainable Development and monitor progress in implementation. The Office for Sustainable Development may give a considerable contribution to improving the inter-sectoral co-ordination, which is one of the preconditions for integration of sustainability requirements into sectoral policies, the efficient NSSD implementation and the necessary harmonisation of various strategic documents. The National Council for Sustainable Development will play an important role in supervising the NSSD implementation and in providing the political support to the process.



As was already mentioned, other factors that will contribute to successful implementation are the appropriate adoption of the document, inclusion of a wide range of stakeholders and development of partnerships and co-operation. Changes in the governance approaches and the political will are absolutely critical, since they are a precondition for an effective and co-ordinated collective action necessary for overcoming the existing development imbalances and for guiding the economy and society towards the sustainability.

7.2 Consistency evaluation of NSSD goals and objectives

During the Strategy drafting process, consistency evaluation of priority objectives set for different areas was done, as well as evaluation of consistency between the NSSD goals and objectives and other strategic documents. The analysis showed that NSSD tasks mainly supported and reinforced each other. However, some existing and/or potential conflicts were identified between development tasks of certain economic sectors and their planned activities (first of all for energy, transport and tourism) and tasks in the areas of nature and biodiversity protection, protection of waters, preservation of space and landscape values, the sea and the coastal zone (which are the components of natural and manmade environment that represent some of the most significant comparative advantages of Montenegro).

One of major challenges in the implementation of NSSD Montenegro will be to manage these conflicts in such a manner that their resolution will guarantee the best outcome in the long-term. The general NSSD recommendation is to apply the sustainability principles (such as preservation of the resources base, equity, transparency, public participation, co-operation and agreement, precaution in case of lack of information), up-to-date mechanisms and international knowledge and skills in managing these conflicts. Specific recommendations and manners of their resolution, as well as the steps that need to be undertaken to that effect within certain sectors, are given within respective sectoral discussions.

The consistency analysis also revealed synergies between NSSD goals and objectives and other strategic documents. It is particularly important to highlight the existing synergy of the NSSD goals with the *Action Plan for EU Accession, Development and Poverty Reduction Strategy*²³ and *Development Directions of Montenegro as an Ecological State*.

The compatibility and synergy have also been identified for the relation of NSSD goals and the *Economic Reforms Agenda*. Nevertheless, it has been established that there is a certain difference in the general approach these two documents take, i.e. in the way they treat several issues. Although the *Economic Reforms Agenda 2002-2007* pays considerable attention to the balanced development (including the social and environment-related development factors), the document is primarily focused on the reforms related to the establishment of the market economy²⁴. The NSSD, on the

23) The DPRS set a number of important development and poverty reduction goals for Montenegro and linked them to Millennium Development Goals.

24) Biannual review of the *Agenda* revealed that the progress of reforms in the environment sector until the beginning of 2005 was one of the slowest. During the past two years, this area was given due attention, already yielding some positive results. Particular attention paid to environment sector reforms is still necessary, especially in the context of EU integrations and in the light of the fact that the



other hand, puts much more emphasis on the environmental issues, issues related to governance and participation, as well as on the issues of promoting knowledge, research and development (which are essential for economic and any other development). Harmonisation of these differences and strategic documents in general is an important task for the coming period that apart from the technical aspects also implies the political choices of development orientations i.e. of the dominant development model. The development of several significant sectoral strategies and the Spatial Plan of the Republic is under way. In some of these processes it is evident that efforts are made to integrate the sustainability requirements, and it is crucial to ensure the same approach be taken with the other documents as well.

desire for fast economic recovery may in the long run lead to unsustainable trends.



8.

MONITORING
AND EVALUATION
OF THE
IMPLEMENTATION





8.1 Measuring and assessing the effectiveness of policies and measures

Measuring and assessing effectiveness of actions undertaken within the framework of any policy or strategic document is necessary for successful implementation, for two reasons: 1) to enable the assessment of progress in the attainment of set goals (thus providing information for the review of initial goals and measures), and 2) to ensure comparability of the national state of the affairs and trends with other countries.

When it comes to the assessment of effectiveness of NSSD policies and measures, a particular problem in this respect will be the weaknesses of the data collection and processing system in Montenegro in almost all the sectors relevant for NSSD. Further reform of the statistics system and harmonisation with EU standards in all the fields is thus essential. Another issue is to harmonise the environment monitoring system with the EEA system.

The selection of indicators is vital for successful assessment of effectiveness of measures and policies. When determining the NSSD indicators, several aspects were taken into account. Firstly, efforts were made to introduce different kinds of indicators such as process, impact and outcome indicators. Secondly, it was taken into account whether proposed indicators were already compiled/monitored in Montenegro, or whether they could be introduced with relatively small efforts and in a short period of time. The indicators that require long-term changes in the national monitoring and statistical systems were mainly not considered. During the NSSD Montenegro implementation process, the possibilities for obtaining technical assistance to identify and monitor such sustainability indicators, i.e. those that are currently not monitored and which are not easy to derive should be investigated. In order to provide for comparability, MSSD indicators, EU sustainability indicators and MDG indicators (those not covered by the MSSD and which proved relevant for the set goals) were taken as a starting point.

8.2 Definition and implementation of the monitoring process and identification of responsible actors

The NSSD monitoring process will be implemented in the same way as the overall implementation co-ordination, that is through co-operation of relevant ministries and other government agencies and expert institutions (key agencies responsible for implementation of NSSD activities) with the Office for Sustainable Development. The basis for monitoring will be the set of indicators given through the Action Plan, i.e. the set of key indicators derived from this wider set (the key indicators are presented in the Chapter 8.3).

The NSSD Action Plan includes certain measures relating to the improvement of the monitoring system (especially regarding the environmental management, energy, biodiversity, waters, air, spatial planning, the sea and the coastal zone) and defines the agencies responsible for the implementation of these activities. Nevertheless, monitoring and evaluation of the NSSD Action Plan 2007 – 2012 will predominantly rely on the existing data sources.

Besides the data of the official statistical institutions and Government agencies, the NSSD monitoring process will also make use of the data of independent research



institutions, the private sector, the NGOs and international organisations which monitor and gather certain data either for the needs of specific projects or systematically. These data can serve as a significant supplement to the official statistics. In the coming three years, new research and data collection activities (apart from the regular monitoring and operation of statistical institutions and other sources of information) are not envisaged for the NSSD monitoring needs.

8.3 Indicators for monitoring the NSSD implementation

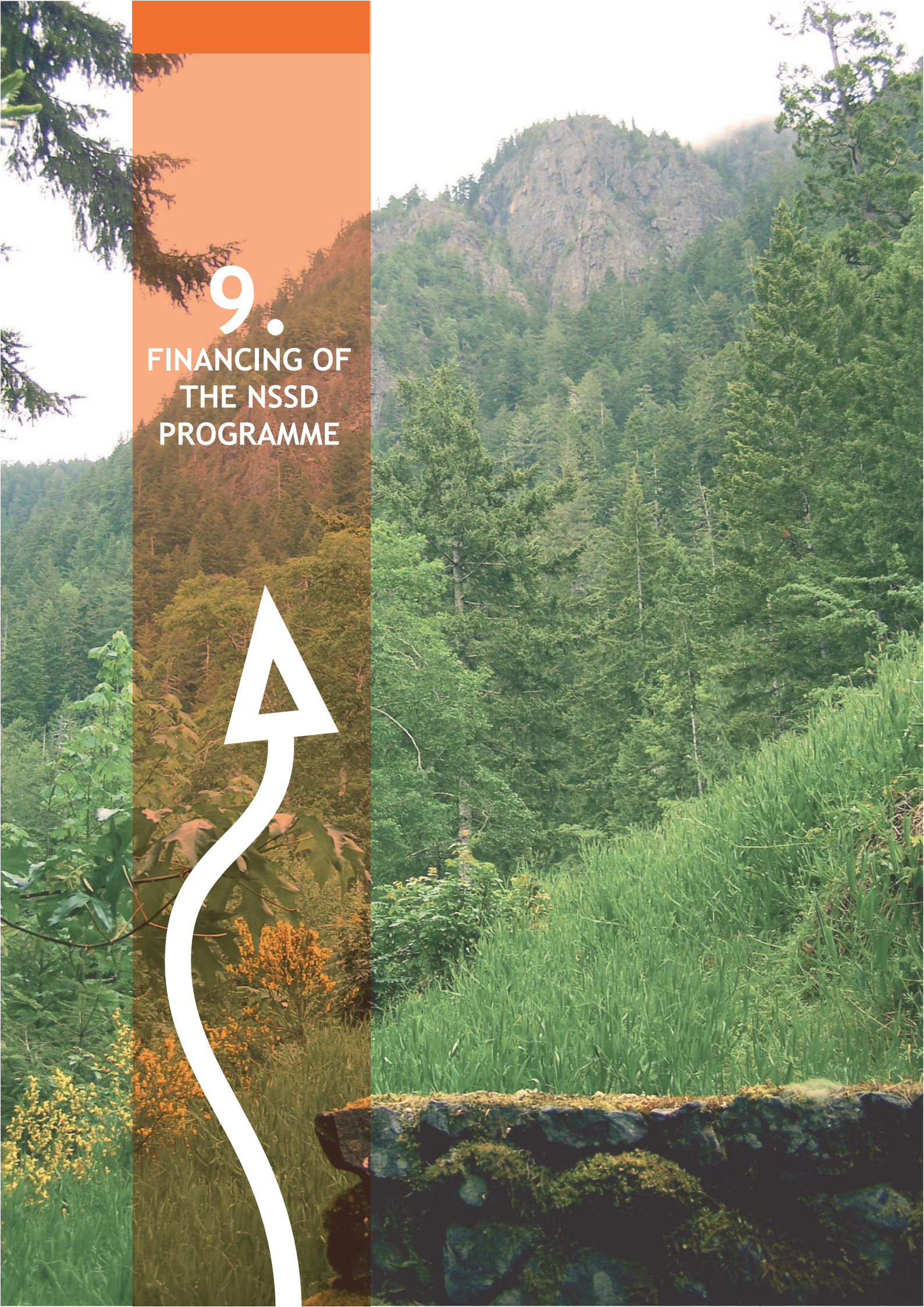
The NSSD Action Plan contains a large number of process indicators attached to certain NSSD measures and/or objectives. In some sectors, the goals and measures have not been defined as quantitative and measurable(which is understandable given the fact that they relate to certain social processes), therefore some of the indicators are more qualitative than quantitative by their nature. It is also important to mention that some of the indicators involved (especially those to monitor the outcomes of long-term actions) are of a stable nature and that changes in these indicators may not be expected in the short-term.

As the time passes, it will be necessary to work on the standardisation of methodologies (since it is possible now to have different data from different sources) and to increase the list of sustainability indicators including those currently unavailable. As was already mentioned, the reform of the statistics system and the EU accession process will have a great impact on both of these factors – the methodology and the types of indicators relevant for NSSD. The key indicators for monitoring and evaluation of the implementation of NSSD general goals are show in Table 8.3-1.

Table 8.3-1Key NSSD indicators and the link with general goals

NSSD goal	Indicator
Accelerate economic growth and development, and reduce regional development disparities	GDP per capita
	GDP by regions
	Unemployment rate
	Contribution of SME to GDP
	Trade deficit
	Foreign Direct Investments and ODA
	Annual investments in infrastructure
	International revenues from tourism
	Share of beds not located in the coastal region in the total number of tourist beds
	Public and private expenditures for research and development
	Energy consumption per capita
	Energy consumption per GDP unit (total and by sector)
	Share of energy generation from renewable sources in the total energy generation

Reduce poverty; ensure equitable access to services and resources	Poverty rate and inequality indicators (Gini coefficient, decile ratio), total and by regions and vulnerable groups
	Enrolment rate in primary school
	Literacy for 15 – 24 age group
	Infant mortality rate
	Children under 5 mortality rate
	Women unemployment rate
Ensure efficient pollution control and reduction, and sustainable management of natural resources	Percentage of the territory protected to preserve biodiversity
	Area of marine protected areas and coastal zone
	Water consumption per capita
	Share of wastewater being treated
	Territory under forests
	Tourism density at the coast
	CO ₂ emissions per capita
Improve governance system and public participation; mobilise all stakeholders, and build capacities at all levels	Consumption of substances damaging for the ozone layer
	Share of tax revenues of local governments expressed as the share of total tax revenues



9.

FINANCING OF THE NSSD PROGRAMME

9.1 Financing sources and cost estimate for NSSD implementation

Low GDP, substantial pressures on public spending, low financial resources available to local governments, etc. are but a few of the factors limiting the possibility for more significant financial support to NSSD implementation from the public sector. Financial strengthening of local governments is an important task in the coming period, since the fulfilment of a large number of sustainable development objectives is linked to that level.

The redistribution of economic benefits and state intervention in order to ensure the protection of disadvantaged categories of the population and equal access to services (as well as their quality) such as education, health care and social protection is also necessary. At the same time, an attempt should be made to rationalise relatively high expenditures these sectors currently have.

The implementation of the ‘polluter pays’ principle as the fundamental principle of sustainable development and environmental policy through better application of economic instruments and earmarking of generated revenues is one of the possible ways to ensure the increase of funding for the environmental protection. In the past, the share of environmental expenditures in GDP was very low and their significant increase is particularly necessary in the context of the Stabilisation and Association process.

Funding of environmental protection projects and programmes by the industry and the private sector is very low due to the lack of economic incentives, poor enforcement of legislation and difficult financial situation. The promotion of sustainable development as a factor contributing to economic efficiency is thus very important, as well as stimulating social and economic responsibilities of the private sector and the application of the ‘polluter pays’ principle.

Efficient enforcement of regulations and application of market mechanisms may stimulate the change of behaviours, that is to bring about the establishment of public-private partnerships and investments into protection measures, cleaner production and new technologies, which is particularly important with large industrial plants that are recognised as the main polluters. These facilities are either privatised or are expected to be privatised soon (KAP, Steel Works Nikšić, Thermal Power Plant Pljevlja). Realistic energy and water prices may also play a significant role for the rational use not only in the business sector, but also in households.

Official Development Assistance ODA (net amount) dropped from 5% of GDP in 2000 to below 1% in 2003, i.e. from 83 to 23 USD per capita²⁵. In order to attain sustainable development goals in Montenegro it is necessary to continue with the implementation of activities that will create the conditions for further ODA growth. At the same time, it is necessary to provide for better co-ordination of international development aid and to use it in the most effective and sustainable way. Of particular importance is to gain access to the EU funds in the framework of the Stabilisation and Association Process. Foreign Direct Investments have a positive trend, although their level is still considerably below the level needed for accelerated economic recovery.

25) Primary source: UNDP/ISSP – *Human Development Report*; secondary source: Ministry of Finance



The measures contained in the NSSD Action plan can be classified into five main categories, according to the sources of finance: measures whose implementation can be financed from the existing budget, measures that can be implemented through better coordination of activities in the public administration, measures that can be offered to donors for financing, measures that can be implemented through the partnerships between the public and the private sector, and measures that represent an additional cost of Strategy implementation. Having in mind that the state budget will not be able to finance the overall NSSD implementation, apart from the donor assistance, borrowing might represent an additional source of finance, respecting the adequate criteria on the management of the existing and taking new loans.

In order to implement the Sustainable Development Strategy, it is necessary to provide the funds that will ensure implementation of measures projected in the Action plan, that is, the state budget should be structured in such a way that it supports NSSD implementation. In this way, a framework will be created that will give clear guidelines to the donors and the private sector, whose participation is very important in NSSD implementation.

Starting from the analysis²⁶ of the budget structure²⁷, the NSSD Action plan was analyzed in order to estimate the funds necessary for its implementation. However, such an assessment could not be accepted as sufficiently reliable and as a credible analysis that gives guidelines for the planning of the amount and structure of the budget that would support efficient implementation of the NSSD Action plan in the upcoming five-year period²⁸, but it gave important recommendations for the implementation of measures from the NSSD Action plan.

The Analysis consisted of the assessment of the expenditure side of the budget²⁹ that enables identification of expenditures (investments and programs) that contribute to sustainability³⁰, definition of its structure and assessment of sustainability of the

26) The state budget for 2004 and 2005 has been analyzed. The 2006 budget could not be analyzed, as the report on its execution will be prepared only in early 2007., and the 2007 budget could not be analyzed because it was in the preparatory phase when the Analysis was made. The Analysis of use of funds was done at the level of the economic classification of expenditures. The share of participation of individual budgetary users in the budget was analyzed; an assessment was made only about the budgetary expenditures, without taking into consideration the consumption from other sources (local budgets, donations).

27) Due to the lack of data on GDP and its distribution, as well as the changes in some other macroeconomic indicators, the state budget was used as a basis for the analysis.

28) There are numerous factors that caused unreliability of the prepared analysis: budget planning is not program planning; the Action plan has been prepared at the level of measures that need to be elaborated to the level of projects and activities in individual sector strategies, which have either not been prepared or they do not contain financial estimates; lack of statistical data, etc.

29) From that aspect, the Ministry of Finance uses most of the budgetary funds, having in mind that this ministry has executed 29% or almost 160 million EUR of the total budgetary expenditures for 2005. Such a large financial outflow has been caused by the amount of interests that the ministry pays on the existing debt (interest represented over 80% of the expenditures of the ministry for 2004). A significant share of the budgetary expenditures – 15.22% went to the Ministry of education and science. The Ministry of labor and social welfare and the Ministry of Interior have executed 9% and 8% of the total budget respectively. The Pension fund - 8.44 %, and the Ministry of Defense 7.4 %. Other ministries and agencies have executed around or below 4% of the budgetary expenditures, whereas the share of expenditures in the field of environment in the overall budgetary expenditures represented 0.18%.

30) A number of budgetary activities are already supporting the sustainable development of the country. These are, primarily, the activities to improve the knowledge and research activities, activities that support art and culture, primary, secondary and university education, as well as adult education, activities to protect and improve the environment, activities to increase the living standard of the individual social groups, social activities and activities aimed at providing equal opportunities, individual activities related to sustainable transport, forestry and health, as well as the activities to fight corruption.



current budgetary expenditures. The following recommendations have been derived from the analysis:

- The Government should secure program planning of the budget that will support strategic priorities;
- The Government should ensure increase in budgetary expenditures that support sustainable development³¹ and increase of the currently low level of investment into environmental protection, because there is a significant share of expenditures in the budget that do not contribute to sustainable development;
- Government ministries should improve coordination in the implementation of various sector strategies and implementation of measures defined in NSSD;
- It is necessary to undertake continuous monitoring and evaluation, with continuous improvement of the Action plan measures.

Introduction of the program planning of the budget would have positive effect on the efficiency in the use of funds, as well as on the implementation of continuous monitoring and evaluation. Having in mind that the concept of sustainable development enables unification of economic, social and environmental aspects of development, special care should be given to the increase in efficiency of the administration through coordinated action of the various ministries in the implementation of sector plans and projects, which will require planning in the state budget of the integral programs for several sectors/ several budget users. It is also necessary to evaluate and adjust the existing and new sector strategies with NSSD.

Having in mind all the mentioned sources and recommendations for financing of NSSD implementation, it will be necessary to secure the following:

- Permanent NSSD financial monitoring³² in order to secure maximum rationality of expenditures, i.e. to achieve, with minimum investments, the expected benefits in accordance with the objectives of the Strategy;
- The Government should allocate resources (financial resources and people) for the development of projects for donors, connecting this process with the highest level of state administration. The body that would be responsible for project development should define transparent procedures for identification of projects and their proposal (they should be open to ministries, agencies, NGO's and other stakeholders) and assess their quality. These procedures must also be established in order to create the conditions for the implementation of projects of the highest importance at the national level, which, at the same time, secure the integration of the social and economic development and environmental protection;
- The Government should intensify the efforts to prepare and monitor the projects that can be implemented in the form of public-private partnership. It is also necessary to secure adequate mechanisms for the prioritization and coordination of implementation of these projects.

31) Share of expenditures in the budget with a potentially positive influence on the achievement of the sustainable development objectives was 43.82% in 2005. In 2005, as compared to 2004, the share of expenditures with a potentially positive influence fell by almost 6%, while the expenditures that have no clear influence have increased by approx. 1%. Having all this in mind, the future budgetary structure should be changed in order to ensure NSSD implementation.

32) Result indicators should be monitored at the level of each individual ministry, and the remaining indicators at the level of the Office for sustainable development, that is, the Government of the Republic of Montenegro.

The image is a vertical banner. The background is a photograph of a mountain landscape. The left side shows a steep, rocky mountain slope covered in dense green forest. The right side shows a more gradual slope with tall green grass and a stone wall in the foreground. A large, white, stylized arrow points upwards from the bottom left towards the top right. The text 'APPENDIX 1 - ACTION PLAN' is written in white, bold, sans-serif capital letters on the left side of the banner, overlaid on the orange-tinted portion of the image.

APPENDIX 1 - ACTION PLAN

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
Stimulate the development of service economy (tourism, maritime transport, etc) (general goal 1)	Further development and implementation of instruments of credit and fiscal policy in order to develop the service sectors	2007 – 2012	Government of the Republic of Montenegro; Ministries of Finance, Tourism, Maritime and Transportation; Central Bank and commercial banks	Share of tourism in GDP Size of naval fleet
	Attraction of foreign direct investments	2007 – 2012	Ministry of Foreign Economic Relations and European Integration; Agency for the Promotion of Foreign Investments	GDP per capita Trade deficit (in absolute terms and as % of GDP)
	Long term plan for revitalisation and incentives for naval industry and its phased implementation	2007 – 2012	Ministry of Maritime and Transportation	
	Stimulating entrepreneurship, SME development (especially in tourism and agriculture), self-employment and employment; priority should be given to the northern region (programmes: <i>Programme for continuous stimulation of employment and entrepreneurship, Banking sector support, Incentives for dynamic entrepreneurship, Fund for Diaspora, Increase in competitive capacities of local producers, Incentives for the successful ones, etc.</i>)	2007 – 2012	Local self-governments, especially from the northern region; Directorate for SME Development; Development Fund; Fund for the Development of Northern Region (FORS Montenegro); Employment Agency; Ministry of Tourism and Environmental Protection; MAFWM	SME participation in tourism and agriculture, by regions Number of employees in SMEs (in agriculture and tourism, and by regions) SMEs contribution to GDP GDP by regions
SME development and increase of employment; priority is the northern region, i.e. the development	Development of human resources	2007 – 2012	Local self-governments; Employment Agency; Ministry of Health, Labour and Social Welfare	Number of highly educated persons by regions

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
Improvement of transportation connections, especially in the northern region, through better maintenance of the existing and construction of new infrastructure; development of combined transport	Quality execution of the programme budget of the Ministry of Transport, Maritime and Telecommunications, based on short term and long term plans of the individual sectors (with the aim to better maintain the existing and invest into new infrastructure)	2007 – 2012	Ministry of Transport, Maritime and Telecommunications Ministry of Finance Transport Directorate	Percentage of the budget allocated for construction of transport infrastructure; Kilometres of asphalt layer and m ² of covered road holes; Number of hours of interruptions on state roads due to infrastructure problems
	Co-operation with international financial institutions and provision of support for the construction of highways (priority: highway/ parts of the highway Podgorica – border with Serbia) and reconstruction of regional and main roads	2007 – 2012	Ministry of Transport, Maritime and Telecommunications Transport Directorate	Constructed km of roads Constructed km of highways and regional roads
	Provision of financial and economic relieves for combined transport, mainly through the support to railway and maritime transport	2007 -2009	Ministry of Transport, Maritime and Telecommunications Railway of Montenegro Port of Bar	Goods transported by railway Reloaded goods in the port of Bar
	Protection of road infrastructure from further degradation caused by overweight freight vehicles	2007 -2008	Ministry of Transport, Maritime and Telecommunications Transport Directorate Crnogoraput	
(general goal 1)				
Full integration of	Strengthening the process of implementation of the legal framework in the field of safety and security of transport and increase in efficiency of control in accordance with the legal regulations and international standards for all types of transport	2007-2012	Ministry of Transport, Maritime and Telecommunications Ministry of Interior and Public Administration Transport Directorate Department for Maritime Safety	Number of traffic accidents

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
	Familiarisation of all the participants in transport sector with the EU norms related to environmental protection; preparation of the plan for phased introduction of the EU standards related to motor vehicles	2007 -2008	Ministry of Transport, Maritime and Telecommunications Ministry of Tourism and Environmental Protection Transport Directorate Department for Maritime Safety	Training programmes for all the participants in transport EU standards for motor vehicles are applied
	Increase the efficiency of technical control of vehicles	2007 -2008	Ministry of Transport, Maritime and Telecommunications Ministry of Interior and Public Administration	
	Adopt the best international standards that define the guidelines for feasibility studies in the transport sector with the aim of protecting the environment	2007-2008	Ministry of Transport, Maritime and Telecommunications Ministry of Tourism and Environmental Protection Transport Directorate Department for Maritime Safety	
	Strengthen the organisational and physical capacities for the protection of sea from pollution from ships in accordance with international agreements (MARPOL Convention and other relevant agreements)	2007-2008	Ministry of Transport, Maritime and Telecommunications Ministry of Tourism and Environmental Protection Department for Maritime Safety PE <i>Morsko dobro</i> (coastal zone management)	Number of environmental accidents on the sea – operational pollution from ships

(general goal 3)

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
	Increasing the level of environmental protection in ports	2007-2008	Ministry of Transport, Maritime and Telecommunications Ministry of Tourism and Environmental Protection Department for Maritime Safety PE <i>Morsko dobro</i> (coastal zone management) Ports, shipyards, marinas	Number of environmental accidents in ports
Diversification of tourist offer (development of village, agro-, eco-, mountain, cultural, sports and other forms of tourism, especially in the northern part of the Republic) in support of the extension of tourist season and attraction of guests with the higher purchasing power (the final aim being increase of direct	Preparation of pilot projects for locations identified in development studies; priority to be given to projects that create a tourist product based on sustainable use of natural resources, i.e. on minimising negative effects on environment	2007 - 2010	Directorate for the Development of SMEs Ministry of Tourism and Environmental Protection Private sector International organisations NGOs	Share of number of beds that are not located in the coastal zone in the total number of tourist beds
	Establishment of tourist organisations in municipalities that still don't have them; establishment of regional tourist organisations	2007 - 2010	Local self-governments Tourist Organisation of Montenegro	Tourism density along the coast (expressed, for example, as a ratio between the surface of coastal area and number of daily tourists)
	Establishment of associations of tourism companies in order to plan joint appearances in the tourism fairs and organise other forms of informative and promotional activities in order to attract tourists of higher purchasing power (especially foreign ones) Provision of funds and credit lines for implementation of projects	2007 - 2010	Tourism companies Ministry of Tourism and Environmental Protection National and local tourist organisations	International revenues from tourism Total investments in
		2007 - 2010	Ministry of Tourism and Environmental Protection Commercial banks Foreign investors	

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
and indirect revenues from tourism) (general goal 1)	Implementation of media campaign on possibilities and importance of development of tourism in rural areas according to the principles of sustainable development – diversification of the tourist offer and development of other complementary forms of tourism Education of staff	2007 – 2012 (continuously)	Tourist organisations N Os	tourism
		2007 – 2012 (continuously)	Ministry of Education and Science Ministry of Tourism and Environmental Protection Tourist industry Centre for vocational Training, scientific-educational institutions, international partners	
Integration of sustainability criteria in sanctioning tourism development projects (i.e. for the adoption and assessment of plans), especially when it comes to coastal and winter mountain tourism (general goal 3)	Adoption and implementation of the principles and guidelines that define sustainable development of tourism, in accordance with good international practice and standards (starting point are UN WTO principles of sustainable tourism)	2007 – 2012 (continuously)	Ministry of Tourism and Environmental Protection National Council for Sustainable Development	
	Review of the Master plan for tourism development in Montenegro and its harmonization with the principles of sustainable development	2007	Ministry of Tourism and Environmental Protection Local and international experts N Os	Revised document adopted
	Consistent implementation of impact assessment in the implementation of big development projects (especially in order to protect biodiversity and sensitive eco-systems, accessibility of space on the coast and protection of the authentic appearance of the coast and the coastal region)	2007 – 2012 (continuously)	Ministry of Tourism and Environmental Protection Local self-governments Private sector investors PE Morsko dobro (coastal zone management), expert institutions	quality of impact assessment studies

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
and indirect revenues from tourism) (general goal 1)	Implementation of media campaign on possibilities and importance of development of tourism in rural areas according to the principles of sustainable development – diversification of the tourist offer and development of other complementary forms of tourism	2007 – 2012 (continuously)	Tourist organisations N Os	tourism
	Education of staff	2007 – 2012 (continuously)	Ministry of Education and Science Ministry of Tourism and Environmental Protection Tourist industry Centre for vocational Training, scientific-educational institutions, international partners	
Integration of sustainability criteria in sanctioning tourism development projects (i.e. for the adoption and assessment of plans), especially when it comes to coastal and winter mountain tourism (general goal 3)	Adoption and implementation of the principles and guidelines that define sustainable development of tourism, in accordance with good international practice and standards (starting point are UN TO principles of sustainable tourism)	2007 – 2012 (continuously)	Ministry of Tourism and Environmental Protection National Council for Sustainable Development	
	Review of the Master plan for tourism development in Montenegro and its harmonization with the principles of sustainable development	2007	Ministry of Tourism and Environmental Protection Local and international experts N Os	Revised document adopted
	Consistent implementation of impact assessment in the implementation of big development projects (especially in order to protect biodiversity and sensitive eco-systems, accessibility of space on the coast and protection of the authentic appearance of the coast and the coastal region)	2007 – 2012 (continuously)	Ministry of Tourism and Environmental Protection Local self-governments Private sector investors PE <i>Morsko dobro</i> (coastal zone management), expert institutions	quality of impact assessment studies

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
Provision of a stable and good-quality food offer through the increase in competitiveness of local producers and sustainable management of resources (general goals 1 and 3)	Harmonisation of policy and regulations in the field of fishery with the EU Common Fishery Policy; strengthening of capacities for development of fishery	2007 - 2010	MAFWM EC programmes	New regulations adopted
	Increased budgetary support (in relation to the scope, as well as in relation to effectiveness) to the development of agriculture and fishery, especially for young producers	2007 – 2012 (continuously)	Government of RoM	Share of total state support to the development of agriculture in GDP(increased) Share of the agricultural budget in the total budget (increased)
	Providing for a better access to credit funds for producers in primary agriculture and fishery	2007 – 2012 (continuously)	MAFWM Directorate for SME Development Commercial banks	Number/scope of modernised food production facilities
	Establishment of business connections among farmers (co-operatives and other forms) in order to eliminate shortcomings of the small scale production (economy of scale)	2007 – 2010 (and onwards)	MAFWM Association of agricultural producers Co-operatives Expert services	Presence of agricultural products from individual holdings on the market
	Development of agricultural market infrastructure and strengthening of the vertical integration of primary agriculture and processing industry	2007 – 2012 (continuously)	MAFWM Associations of food processors International organisations	Agricultural stock exchange established Licensing of buyers
	Attraction of foreign capital to the sector of food production and support to investments into processing facilities and distribution channels	2007 – 2012 (continuously)	Agency for the Attraction of Foreign Investments Directorate for SME Development	Level of foreign investments into agriculture

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
	Construction and continuous improvement of the food safety control system	2007 – 2010 (and onwards)	MAF M - Responsible inspections - Laboratories (veterinary, phyto-sanitary, milk laboratory) Ministry of health, Labor and Social welfare EC programmes (TAIE and twinning)	quality standards introduced System for products traceability introduced Administration trained
	Development of organic agriculture (improved legal and institutional framework, vocational training, incentives)	2007 – 2010 (and onwards)	MAF M Certification Agency (Monteorganica) International organisations Expert services	Organic production certified Presence of organic products in the market (especially in the tourist offer)
	Promotion of specificity of Montenegrin food production (high value and specific products, products with protected geographic origin, products of organic agriculture, etc.)	2007 – 2010 (and onwards)	MAF M Directorate for SME Development Associations of producers and processing companies Tourist organisations	Presence on international and national fairs and exhibitions
	Preparation of guidelines manuals for integration of environmental protection (protection of waters, agricultural land, fish, biodiversity, and genetic resources) into the technological development of agriculture and processing industry, and promotion of good practice of the EU countries	2008 – 200	MAF M Expert institutions (bio-technical institute) International organisations EC programmes NO sector	documents prepared
	Provision of special support to the areas where working and production conditions are aggravated	2008 – 2010 (and onwards)	MAF M Secretariat for Development International organisations EC programmes	Strategy for rural development prepared, and less favoured areas identified

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
Rural development and provision of adequate living standard for the rural population (general goals 1 and 2)	Improvement of living conditions in rural areas through improvement of village infrastructure	2007 – 2010 (and onwards)	MAFWM Secretariat for Development International organisations EC programmes Local communities	Investments into village roads and water supply systems Accessibility of schools
	Promotion of traditional and sustainable production technologies, as well as maintenance of aesthetic and tourism development functions of landscapes in agricultural areas	2007 – 2012 (continuously)	MAFWM Associations of producers International organisations Local communities	
	Diversification of economic activities and sources of revenues in rural areas, with special emphasis on various forms of tourism	2007 – 2012	MAFWM Ministry of Tourism Secretariat for Development Directorate for SME Development Local communities	Number of programs for development of agro-tourism
Rational use of electricity with the increase of at least 10% in energy efficiency by 2010 in comparison to 2005 (general goals 1 and 3)	Preparation of the annual Action Plan for the implementation of the Energy Efficiency Strategy	annually	Ministry of Economic Development Office for Energy Efficiency	Losses (%) in the transmission and distribution networks
	Reduction of technical and commercial losses in all the segments of electrical power sector	2007 - 2010	Ministry of Economic Development EPCG AD Nikšić	
	Promotion and implementation of projects for increase in energy efficiency in the public sector (e.g. public lighting system, schools, hospitals, administration) and in households	2007 – 2010 (and onwards)	Ministry of Economic Development – Office for Energy Efficiency	Final energy consumption per capita
	Establishment of energy related data base, which would be consistent with EUROSTAT system of presentation of national energy data	2007	Ministry of Economic Development – Office for Energy Efficiency	Final energy and electricity consumption per GDP unit (total and by sectors)
	Provision of incentives (institutional and financial) for implementation of programs of energy efficiency	2007 – 2010 (and onwards)	Ministry of Economic Development	

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
Reduction in energy import dependence through optimal use of available national resources and with priority to utilisation of renewable sources (general goal)	Adoption of the Energy Sector Development Strategy of the Republic of Montenegro until 2025 and preparation of the Action Plan for its implementation	2007	Ministry of Economic Development	
	Creation of legislative, institutional, financial and regulatory framework for greater participation of the private sector and larger investments in sustainable development of the energy sector, with simplification of the procedures for the issuance of adequate permits	2007 – 2010 (and onwards)	overnment of RoM Ministry of Economic Development Regulatory Energy Agency	Data on production, imports and energy consumption from the Energy balance Sheets of RoM
	Maintenance, revitalisation and modernisation of the existing and construction of new infrastructure for the needs of production and use of energy	2007 – 2012 (and onwards)	overnment of RoM EPCG AD Nikšić	Share of energy produced from renewable sources in the total energy production
	Providing for the operation of the electrical power system according to market principles with the introduction of tariffs that would reflect real costs	2007 – 2010 (and onwards)	Ministry of Economic Development Regulatory Energy Agency EPCG AD Nikšić	
	harmonisation of national legislation in energy sector with the EU legislation	2007 – 2010 (and onwards)	Ministry of Economic Development	Price of electricity by different sectors
	Creation of preconditions for greater use of renewable energy sources, combined production of electricity and heat (CHP) and use of fossil fuels with clean technologies; analysis of possibilities for the implementation of projects within the Clean Development Mechanism (CDM) of the Kyoto Protocol	2007 – 2012 (and onwards)	Ministry of Economic Development	Subsidies for socially vulnerable population groups defined
	Ensuring energy availability to all the population groups (determining the energy pricing and tariff policies and preparation of programmes for subsidising socially most vulnerable population groups)	2007	overnment of RoM Ministry of Economic Development	

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
Improvement of industry's environmental performance (General goal 3)	E change of information and dialogue between the public sector and industry about the obligations specified in the newly adopted and planned laws on environment in the context of EU integration (especially the IPPC law); preparation of plans for gradual implementation of EU standards	2007 - 200	Ministry of Economic Development Ministry of Tourism and Environmental Protection Industrial companies and business associations International organisations	
	Implementation of obligations from the IPPC law (obtaining integrated permit, monitoring and harmonisation of emissions with the standards)	2008 - 200	Industrial companies Ministry of Tourism and Environmental Protection	Number of applications number of integrated permits issued
	Implementation of the polluter pays principle in industry	2007 – 2009	Ministry of Tourism and Environmental Protection MAF Eco-fund Water Administration	Collected financial resources
	Encourage and stimulate business sector (especially industrial companies) to introduce voluntary mechanisms for improvement of environmental performance (EMAS, ISO standards, environmental label)	2007 – 2009	Ministry of Economic Development Ministry of Tourism and Environmental Protection business associations	Number of companies that implement one of these instruments
	Analysis of possibilities for the development of incentives for introduction of cleaner and more energy-efficient technologies and implementation of feasible solutions (possible forms of incentives subsidies, soft loans, tax relieves)	2007 - 2010	Ministry of Economic Development Ministry of Tourism and Environmental Protection Ministry of Finance	
	Further development and implementation of the system of water recycling in industrial plants	2007 - 2008	Industrial companies (big water consumers) MAF Ministry of Tourism and Environmental Protection University	
	Clean-up of the past pollution by the state (obligations accepted for the aluminium plant – AP, and for the mining tailings in Mojovaca and Pljevlja)	2007 - 2010	Government of RoM	

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
Stimulating research, development and innovations (General goals 1 and 3)	Preparation of the strategy for development, innovations and technology	2007 - 2008	Ministry of Education and Science Ministry of Economic Development Secretariat for Development	Strategy adopted
	Creation of economic instruments (compensations and subsidies for new projects, improvement of technologies, patents) which would stimulate research and development	2007 - 2009	Ministry of Tourism and Environmental Protection Ministry of Economic Development University	Number of patented research results
	Investing in reform of technological education to develop human resources for introduction and implementation of new technologies	2007 – 2012 (continuously)	University Ministry of Education and Science	Public and private expenditures for research and development
	State support in the initial phases of transition to «clean technologies» through: - Technical assistance, demonstration projects and training; and - Establishment of the Centre for Cleaner Technologies	2007 - 2010	Ministry of Economic Development Ministry of Tourism and Environmental Protection Ministry of Education and Science University International organisations Business sector	Participation of SMEs and private sector in financing the research Participation in international research funds and projects
	Increased financing of research and innovations by SMEs and by the industrial sector	2007-2012		
	Increase in budgetary funds for scientific and research work and development	2007 – 2009	Government of RoM University	
	Mobilisation of international resources through securing part of the funds for participation in international projects	2007 – 2012 (continuously)	Ministry of Education and Science University	

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
Increase national nature protected areas to 0 of the territory and protect at least 0 of the coastal zone by 200 ; in identifying protected areas, European classification of habitats significant for protection purposes (EMERALD, Natura 2000) should be used, making sure that all the representative ecosystems are included (general goal 3)	Definition of the network of nature protected areas – projections	2007 - 200	Ministry of Tourism and Environmental Protection RIPN Faculty of Biology Natural Museum; Institute for Marine Biology; Institute of Technical Sciences; Municipal secretariats departments for environmental protection N Os	Projection integrated in the SP
	Designation of new protected areas to achieve 0 of the territory of the Republic (priorities NP Prokletije; regional parks Komovi and Bić, Maglić and Volujak)	2008 - 200	Ministry of Tourism and Environmental Protection RIPN Municipal secretariats departments for environmental protection Faculty of Biology; Institute for Marine Biology; N Os	Percentage of protected territory
	Designation of 0 of the coastal zone territory as protected area (priorities: Tivat's Solila; areas in the municipality of Ulcinj - Solana, Šasko Lake, Kneževica and Ada Bojana; Buljarica); designation of protected areas in the sea (zones by Platamuni, Old Ulcinj and Katići islands)	2008 - 200	Ministry of Tourism and Environmental Protection PE for coastal zone management (<i>Morsko dobro</i>) RIPN Municipal secretariats departments for environmental protection Institute for Marine Biology; N Os	Percentage of protected territory in the coastal zone

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
Establish an efficient system for managing nature protected areas (the system should be harmonised with the IUCN management categories and provide for participatory approach to management) (general goal 3)	Establishment of managers for all the nature protected areas and development of adequate human resources	2007 – 2009	Municipal secretariats/ environmental protection Ministry of Tourism and Environmental Protection PE for coastal zone management (Morsko dobro) RIPN	Managers for protected areas established
	Adoption of management plans for all the nature protected areas through the participatory process and in accordance with the IUCN guidelines	2007 – 2009	Managers of nature protected areas PE National Parks RIPN Ministry of Tourism and Environmental Protection PE for coastal zone management (Morsko dobro) Municipal secretariats/ departments for environmental protection	Management plans adopted
	Consistent implementation of the existing management plans (development and protection programmes) and prevention of events that can harm the integrity of the nature protected areas (such as unplanned construction, uncontrolled use of biodiversity and uncontrolled forest cutting in the protective and border zones), especially in the NPs Durmitor and Skadar Lake; capacity building in the PE National Parks and in other parts of the administration tasked with the protection of nature and biodiversity	2007 – 2010	PE National Parks Municipal secretariats/ departments for environmental protection Ministry of Tourism and Environmental Protection MAFWM N Os International organisations	

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
Improve the legal framework for the protection of biodiversity; strengthen human resources and develop an effective system for biodiversity monitoring (general goal 3)	Adoption and implementation of the National Biodiversity Strategy and Action Plan	2007 – 2009	Ministry of Tourism and Environmental Protection (in co-operation with UNDP) RIPN PE National Parks PE for coastal zone management (<i>Morsko dobro</i>) Municipal secretariats/ departments for environmental protection Faculty of Biology; Natural Museum; Institute for Marine Biology; Bio-technical Institute; NGOs	BSAP adopted and action plans implemented
	Review (harmonisation with the EU legislation) and implementation of regulations on biodiversity protection, nature protected areas and protection of nature in general	2007 – 2010	Ministry of Tourism and Environmental Protection RIPN PE National Parks Municipal secretariats/ departments for environmental protection NGOs	New regulations adopted

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
	Implementation of priority actions and national action plans from the SAP IO report	2007 - 2012	Ministry of Tourism and Environmental Protection RIPN PE National Parks PE for coastal zone management (Morsko dobro) Municipal secretariats departments for environmental protection Faculty of Biology Institute for Marine Biology; NGOs	Action plans implemented
	Training and employment of new staff for the areas of specialisation in the field of biodiversity protection and protected areas management where competent staff is currently lacking	2007 (and onwards)	Ministry of Tourism and Environmental Protection RIPN PE National Parks PE for coastal zone management (Morsko dobro) Municipal secretariats departments for environmental protection Faculty of Biology Institute for Marine Biology; io-technical Institute; NGOs	Number of newly hired specialists for nature protection

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
Ensure sufficient quantity of good quality drinking water (general goals 3 and 2)	Review of the programme for biodiversity monitoring and provision of necessary financial resources for its implementation	2007	Ministry of Tourism and Environmental Protection RIPN PE National Parks PE for coastal zone management (<i>Morsko dobro</i>) Municipal secretariats/departments for environmental protection	New (revised) biodiversity monitoring programme adopted
	Protect and adequately control springs/sources for water supply for the cities; prevent devastation of forests in the zones of springs used for water supply	2006 – 2012	MAFWM Local self-governments	Consumption of water per capita
	Identify new springs/sources of drinking water and protect them adequately	2007 - 2012	MAFWM Local self-governments	Losses in water supply systems
	Preparation of plans for provision of drinking water to rural areas	2007 – 2010	MAFWM Water Administration Public Companies for Water Supply and Sewerage	Price of water / wastewater collection Managers for rural water supply systems identified
	Reduction of losses in water supply systems for 20% by 2008 and halting the use of drinking water for other purposes, in order to bring the use of drinking water closer to the EU standards	2007 – 2010	MAFWM Water Administration Public Companies for Water Supply and Sewerage	Share of population with access to safe drinking water (total, urban, rural), relationship with MDGs
	Introduce continuous monitoring of drinking water quality in all the water supply systems	2007 - 2009	Public Companies for Water Supply and Sewerage Ministry of Health, Labor and Social Welfare, Institute for Public Health	Reduction of number of samples of microbiologically unacceptable water



Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
	Set the water prices at the level of cost recovery (first of all of economic costs, and then gradually of environmental costs, as prescribed by the EU Water Framework Directive – WFD)	2007 - 2010	Ministry of Tourism and Environmental Protection Local self-governments Public Companies for water Supply and Sewerage	Share of population with access to sewage facilities (total, urban, rural), relationship with MDGs
	Investments in maintenance of city water supply systems in order to ensure good quality of drinking water; identification of bodies responsible for management of rural water supply systems and improvements in managing these systems	2007 - 2010 (and onwards)	Local self-governments Public Companies for water Supply and Sewerage	
	Construction of regional water supply system for the coastal region	2007 - 2010	Government of RoM International financial organisations Local self-governments PE Regional Water Supply	
	Programme of use of potential springs for the implementation of water bottling projects	2007 - 2008	MAF Ministry of Economic Development	
Introduce integrated river basin management, with necessary legal and institutional changes and improvements in the quality	Adoption of the new Law on waters, harmonised with the EU Water Framework Directive; adoption of the plan for protection of waters; adoption of the Law on Financing of water Management and of relevant bylaws	2007 - 2010	MAF Ministry of Tourism and Environmental Protection	New regulations adopted
	Signing and ratification of international conventions (elsinki, Stoc holm, Protocol on Water and Health and others)	2007 - 2008	Parliament of the RoM; other responsible bodies and institutions	Conventions ratified National plan for the implementation of the Stoc holm Convention

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
control and monitoring of waters (general goal 3)	Capacity building for the implementation of integrated river basin management and improvement of horizontal and vertical co-ordination between various segments of administration	2007 – 2009	MAFWM Water Administration Ministry of Tourism and Environmental Protection Future Environmental Protection Agency Ministry of Economic Development Ministry of Transport, Maritime and Telecommunications Ministry of Health, Labor and Social Welfare PE for coastal zone management (<i>Morsko dobro</i>) Local self-governments	
	Preparation and implementation of projects for integrated management of Tara and Lim river basins and of Skadar Lake eco-system	2007 – 2012	MAFWM Ministry of Tourism and Environmental Protection World Bank	
	Implementation of wastewater Master Plans: - Reconstruction and construction of priority sewage systems - Reconstruction of pumping stations (PS) - Construction of priority plants for wastewater treatment (Nikšić, Podgorica, coast) - Connection of big generators of wastewater to the sewage network (after the construction of the treatment plants) and ensuring adequate pre-treatment in industry	2006 – 2012	Local self-governments Public Companies for Water Supply and Sewerage Ministry of Tourism and Environmental Protection / future unit for the implementation of communal infrastructure projects	Length of constructed sewage network Number of reconstructed PS Percentage of population connected to the sewage system Share of treated wastewater

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
Preserve, and if possible improve air quality, especially in urban areas (general goal 3)	Consistent implementation of the IPPC Law (with phased implementation of AT requirements immediately for the new facilities, until 20 5 for the existing ones)	2008 – 2009 (and onwards)	Ministry of Tourism and Environmental Protection future Environmental Protection Agency Private business sector	
	Consistent implementation of water quality monitoring, in accordance with the EU regulations encompassed under the FD (later Framework Directive); provide adequate funds for implementation of the monitoring programme	2007 - 2009 (and onwards)	Ministry of Tourism and Environmental Protection future Environmental Protection Agency MAF M	
	harmonise national regulations with the EU directives in the field of air quality	2007 - 2008	Ministry of Tourism and Environmental Protection	Regulations adopted
	Ratification of relevant (non-ratified) supporting protocols of the Convention on Long-range Transboundary Air Pollution	2007 - 2008	Parliament of the Republic of Montenegro, other responsible bodies and institutions	Protocols ratified
	Preparation of a long term strategy for air quality management; preparation of an Action plan	2007 - 2008	Ministry of Tourism and Environmental Protection future Environmental Protection Agency	Strategy and Action Plan adopted
	Phasing-out of leaded petrol and reduction in sulphur content of diesel fuel and oil	2007 - 2009	Ministry of Tourism and Environmental Protection Ministry of Economic Development	Consumption of unleaded fuel; consumption of diesel and oil with low sulphur content
	Introduction of integrated permit in accordance with the IPPC Law	2008	Ministry of Tourism and Environmental Protection future Environmental Protection Agency	Number of IPPC permits

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
	Establishment of a national network for monitoring of air quality in accordance with the EU standards	2007 - 2008	Ministry of Tourism and Environmental Protection/ future Environmental Protection Agency	Air quality reporting
	Improved monitoring of soil in relation to the content of hazardous and harmful materials; preparation of maps on the contents of hazardous and harmful substances in the soil	2007 – 2010	Institutions responsible for soil monitoring/ future Environmental Protection Agency University of Montenegro – Bio-technical Institute CETI	Map indicating contents of hazardous and dangerous substances in soils prepared
Improvement of soil management and prevention of the causes of land degradation and damages (general goal 3)	Prevention (reduction to the lowest possible level) of the conversion of agricultural land through the definition of agricultural land use policy, improvement of the legal framework (adoption of the Law on Agricultural Land) and consistent implementation of regulations and spatial plans	2007 – 2010 (permanently)	MAFWM Ministry for Economic Development Local self-governments	Surface of agricultural land
	Ratification of the UN Convention on Combating Desertification (UNCCD); Preparation of the national action programme for prevention of land degradation in accordance with UNCCD	2007 2008 - 2009	Parliament of the RoM MAFWM, Ministry of Tourism and Environmental Protection	Convention ratified National action programme prepared
	Introduction of the system of soil fertility control and control of the rational use of fertilisers on cultivable land for as many households as possible	2007 – 2010 (permanently)	MAFWM University of Montenegro – Bio-technical Institute Users of soil/land resources	Surface of fertile land

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
	radual re-cultivation of damaged land, primarily in the municipality of Pljevlja	2007 – 2012	Ministry of Tourism and Environmental Protection future Environmental Protection Agency Companies whose activities caused soil damages University of Montenegro – Bio-technical Institute	
	Erosion mapping according to the type and degree of erosion; development of programmes and measures for the protection and mitigation of eroded areas	2007 – 2012	MAFWM Ministry of Tourism and Environmental Protection future Environmental Protection Agency University of Montenegro – Bio-technical Institute	Maps on land erosion eroded areas prepared
	Preparation of National Forestry Policy of Montenegro	2007	MAFWM	National forestry policy adopted
Obtaining of sustainable forestry certificate (in accordance with Forest Stewardship Council - FSC methodology)	Preparation of the new Law on forests, law on hunting, as well as preparation of supporting bylaws	2007	MAFWM	New laws and bylaws adopted
	Improvements in the system of monitoring and controlling plans and management practices in forestry and hunting, while providing for an adequate basis for these activities in the relevant laws and bylaws	2007 - 2008	MAFWM	New regulations adopted, defining responsibilities in the forestry hunting monitoring and control system; improved system implemented
	Development of institutional capacities for the implementation of improved methodology of forest inventories	2007 - 2008	MAFWM Forest Agency	Training (number of trained people)
(general goal 3)	Development of institutional capacities for the implementation of improved methodology of forestry planning (based on the principles of sustainability and economic efficiency, and on the concept of ecological forest industry)	2007 - 2008	MAFWM Forest Agency	Training (number of trained people) Planning documents prepared according to the improved methodology

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
	Establishment of a central data base and GIS in forestry / hunting and provision of necessary equipment and training	2007 - 2008	MAFWM Forest Agency	Provided equipment and training Established data base and GIS
	National forest inventory: - Preparatory actions - Field work - Data processing	2007 2008 – 2009 2009	MAFWM Forest Agency	Preparations executed Field works executed National Forest Inventory available
	Production of seeds from autochthonous genetic resources - Review of the existing and identification of new forests for seed production - Implementation of nursery and other measures in identified forests - Purchase of equipment, training and construction of facilities	2006 – 2007 2007 – 2008 2007 - 2008	MAFWM Forest Agency	Number of separated and registered seed contents Number of facilities where measures were performed Equipment procured, training completed and facilities constructed
	Monitoring of the health state of forests – establishment of bio-indicating points	2007	MAFWM Forest Agency	Network of bio-indicating points established; necessary surveying performed
	Establishment of the protection system against forest fires (video surveillance)	2007 - 2008	MAFWM Forest Agency	Procurement and installation of equipment, training
	Construction of 50 km of forest roads (10 km/year) and reconstruction of 50 km of forest roads (10 km/year)	2007 – 2012	MAFWM Forest Agency	Length of constructed and reconstructed roads
	Identification and protection of autochthonous dendro-flora and fauna, with special emphasis on endemic and relic species	2007 – 2010	MAFWM Forest Agency Users of hunting areas	Identification activities executed
	Preparation of planning documentation	2007	MAFWM Forest Agency	Surface of the area where the activities have been executed
	Implementation of planned activities (500 ha total or 100 ha/year)	2007 - 2012		
	Renewal and restoration of degraded forests (general goal 3)			

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
Establishment of efficient legislative and institutional framework for environmental protection (particularly in respect to free access to information, implementation of EIA, SEA and IPPC legislation and strengthening of other regulatory and market instruments for environmental management)	Change and amend the Environment Law in accordance with the ongoing reforms of environmental legislation, and continue with harmonisation of national legislation with the EU regulations	2007 - 2008	Ministry of Tourism and Environmental Protection	Amended Environment Law adopted Environmental laws harmonised
	Development of administrative capacities for harmonisation of environmental legislation	2007 - 2008	Ministry of Tourism and Environmental Protection	The European Union guide implemented
	Provide for training and professional development of staff for the implementation of new laws (EIA, SEA and IPPC) as well as for the other environmental regulations that are currently being drafted (that is, for the ones that will be prepared by 2008 at all levels)	2007 - 2008	Ministry of Tourism and Environmental Protection	Number of organised workshops, training programs and seminars
	Prepare bylaws for the law on impact assessment, law on strategic impact assessment and law on integrated pollution prevention and control	2008	Ministry of Tourism and Environmental Protection	Bylaws adopted
	Prepare plan of implementation for the IPPC Law	2008	Ministry of Tourism and Environmental Protection Local self-governments	IPPC implementation plan adopted
	Efficient implementation of the existing environmental laws (and in time, of the ones the adoption of which is forthcoming)	2007 - 2008 and onwards	Ministry of Tourism and Environmental Protection	
	Establish Environmental Protection Agency and create preconditions for efficient work of this institution	2007	Ministry of Tourism and Environmental Protection	Agency established
	Harmonise the program of monitoring and system of reporting with EEA standards and thus create preconditions for establishment of a comprehensive information system in the field of environmental protection	2007 - 2008	Ministry of Tourism and Environmental Protection MAF CETI Hydro-met Institute Health Institute RIPN	(new) Monitoring program prepared

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
(General goal 3)	Prepare joint programme for exchange of information and their dissemination among republican and local authorities, non-governmental organisations and other local organisations, with the aim to encourage and stimulate public participation in environmental decision making process, especially at the local level	2007 - 2008	Ministry of Tourism and Environmental Protection Local self-governments NGOs	Programme for exchange of information developed
	Ratification of Aarhus Convention	2008	Responsible authorities in the RoM Ministry of Tourism and Environmental Protection	Convention ratified
	Adopt the Law on Eco-fund and establish eco-fund, while strengthening the role of economic instruments and implementing the «polluter pays» principle consistently	2006 - 2007	Ministry of Tourism and Environmental Protection Ministry of Finance	Law on Eco-fund adopted/ institution established
Adoption of new and updating of the existing spatial plans at all levels (from the national spatial plan to municipal detailed urban plans), and integration of sustainability requirements into spatial plans and documents (general goal 3)	Adoption of the national Spatial Plan (SP) and integration of sustainability requirements into the SP through the strategic impact assessment	2007	Ministry for Economic Development Parliament of the RoM	Strategic impact assessment study SP adopted
	Adoption of the Spatial Plan for Special Purpose Area <i>Morsko dobro</i> (coastal zone)	2007	Parliament of the RoM	SPSPAMD adopted
	Harmonisation of spatial plans for special purpose areas and of municipal spatial plans with the Spatial Plan of the Republic	2007 - 2009	Ministry for Economic Development Local self-governments	(Number of) Changes and amendments of spatial plans
	Adoption/ update of municipal general and detailed urban plans (GUP and DUP); priority to be given to coastal and municipalities that comprise some of the national parks	2007 - 2009	Local self-governments Ministry for Economic Development Responsible expert institutions	Number of adopted/ updated GUPs and DUPs
	Provision of timely and effective access to information and public participation in drafting spatial and urban planning documentation	2007 - 2010	Ministry for Economic Development Local self-governments NGOs	

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
	Capacity building (especially at municipal level) for continuous planning and implementation of modern trends, and integration of sustainability requirements (through environmental impact assessment of plans)	2007 – 2012 (continuous)	Local self-governments Ministry for Economic Development Domestic e pert institutions	(Number of) Training programmes for municipal institutions responsible for planning
	Establishment of a regional planning centre (for municipalities in the northern region)	2007	Local self-governments	Institution established
	Establishment of an integrated information system with adequate sub-systems (cadastre, spatial planning, urban planning, infrastructure)	2007 – 2012 (continuous)	Ministry for Economic Development Local self-governments	
	Capacity building in relevant inspections for implementation of laws and plans; improvements in co-ordination and separation of responsibilities, and consistent implementation of punitive measures in case of non-compliance with regulations plans	2007 – 2012 (continuous)	Ministry for Economic Development Local self-governments	
	Adoption of the policy for landscape protection in accordance with the Council of Europe Convention	2008	Ministry for Economic Development	Landscape protection policy adopted
Protection of natural and cultural landscape (general goals 3 and 5)	Identification and evaluation of landscapes and integration of landscape protection into spatial planning, environmental protection policy, cultural and other relevant policies	2007 – 2010	Ministry for Economic Development Ministry of Tourism and Environmental Protection Responsible local self-government institutions E pert institutions (for urban planning and design, protection of cultural heritage, protection of nature, Faculty of Architecture)	Landscapes identified and evaluated, and included in the new spatial and urban plan of the municipalities

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
	Define the border of coastal zone according to the guidelines of Barcelona Convention, supporting protocols and draft IC M protocol; recognise the border of the coastal zone in the Spatial Plan of the Republic	2007	Government of RoM Ministry for Economic Development Ministry of Tourism and Environmental Protection PE for coastal zone management	Coastal zone defined in the Spatial Plan of the Republic
	Prepare and adopt National Strategy for Integrated Coastal Zone Management in Montenegro - NS for IC M in Montenegro	2007	Government of RoM Ministry of Tourism and Environmental Protection Coordination body for IC M	National IC M Strategy adopted
	Define the line beyond which there is no construction or establish parameters according to which this line will be defined in the plans of a lower rank	2007	Government of RoM Ministry of Tourism and Environmental Protection PE for coastal zone management Municipalities: Berane, Budva, Dubrovnik, Herceg Novi, Kotor, Tivat, Ulcinj	Line beyond which there is no construction determined (or parameters for its definition) within the SP or through a legal act
	Change the Law on <i>Morsko dobro</i> (coastal zone) or adopt the new Law on Coastal zone; the law should be harmonised with Barcelona Convention, supporting protocols and other international conventions	2007	Government of RoM Ministry of Tourism and Environmental Protection Ministry for Economic Development	New law adopted
Introduction of integrated coastal zone management (general goal 3)	Create institutional framework (institution, agency or similar) for the implementation of new regulations and National IC M Strategy	2008	Government of RoM Ministry of Tourism and Environmental Protection Ministry for Economic Development	Institution/agency established



Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
	Secure implementation of Barcelona Convention and supporting protocols, MARPOL Convention and other relevant international agreements (through the adjustment of national regulations, adoption and implementation of relevant strategies, action plans and measures)	2007 – 2012 (phased, long term)	Parliament of RoM Government of RoM Ministry of Tourism and Environmental Protection Ministry of Transport, Maritime and Telecommunications	Level of fulfilment of duties from the national Report on the implementation of Barcelona convention; Level of implementation of MARPOL and other conventions
	Recognise and clearly separate responsibilities for integrated management at the local, regional and national level	2007 - 2008	Government of RoM Ministry of Tourism and Environmental Protection PE for coastal zone management Municipalities Herceg Novi, Kotor, Tivat, Budva, Bar, Ulcinj	Competencies defined
	Prepare CAMP Montenegro (Programme of integrated coastal zone management)	2008 - 2009 (and onwards)	Government of RoM Ministry of Tourism and Environmental Protection PE for coastal zone management	CAMP Montenegro adopted

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
Reduction of pollution of the sea and coastal zone (general goal 3)	Prepare a comprehensive program of continuous monitoring of oceanographic, physical-chemical, biological and other parameters of the sea and coastal area (monitoring) that will integrate individual programmes, and identify new financing sources; implementation of the programme from 2007	2007 - 2008	Government of RoM Ministry of Tourism and Environmental Protection MAF M Ministry of Transport, Maritime and Telecommunications PE for coastal zone management Municipalities Novi, otar, Tivat, udva, ar, Ulcinj ydro-met Institute CETI Institute for Marine biology, other relevant institutions	Programme prepared and adopted Funds for the implementation of the Programme secured and allocated Equipment for institutions appointed to perform the monitoring provided IS data base established and regularly updated
	Provide necessary equipment for monitoring of all the parameters in the sea; establish IS data base on the sea and coastal zone, provide mechanisms of continuous financing and identify institutions for maintenance of the data base	2007 - 2012		
	Adoption and implementation of the National plan of interventions in case of accidental pollution of the sea from the ships, as a basis for accession to the Sub-regional Plan for the Adriatic	2007 – 2008 and onwards	Government of RoM Ministry of Transport, Maritime and Telecommunications Agency for Naval Safety and other relevant institutions	Plan of action in case of accidental pollution of the sea from ships prepared and adopted Involvement in activities of implementing the Sub-regional plan for the Adriatic Laws adopted
	Adoption of the Law on Protection of the Sea from Pollution from vessels, Law on Ports, Law on Sea, Law on hydrographic Activities, Law on Sea Navigation, Law on Safety and Security of Navigation	2007	Government of RoM Ministry of Transport, Maritime and Telecommunications	

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
	Provide mechanisms for efficient distribution and co-ordination of competencies for the control of activities in the coastal zone (which implies cross-sectoral co-operation and co-operation of local and national inspections)	2007 -2008	Government of RoM Responsible ministries PE for coastal zone management Municipalities of Herceg Novi, Kotor, Tivat, Budva, Bar, Ulcinj	Mechanisms defined in the National Strategy for ICZM
	Review and adopt the National Action Plan for Reducing Pollution from Land Based Sources in accordance with the goals stated in the Strategic Action Plan adopted in 1997 within UNEP/MAP	2007	Ministry of Tourism and Environmental Protection and other ministries and institutions involved in the implementation of Barcelona Convention and its protocols on the operational level in Montenegro	National Action Plan for Prevention of Pollution from Land-based Sources prepared and adopted
	Preparation of the National Communication on Climate Change (including the inventory of greenhouse gases, the plan for reduction of emissions and the programme to mitigate the consequences of climate change)	2007 - 2008	Ministry of Tourism and Environmental Protection/ future Environmental Protection Agency Hydro-met Institute	Inventory of greenhouse gases (as a part of the National Communication) CO ₂ emissions National Communication adopted
Fulfilment of obligations under the international agreements on climate change and reduction in the use of ozone depleting substances (general goal 3)	Ratification of Kyoto Protocol	2007	Parliament of the RoM	Ratified Protocol
	Implementation of the programme for phasing out the ozone depleting substances	2007 –2012	Ministry of Tourism and Environmental Protection/ future Environmental Protection Agency	Consumption of ozone depleting substances
	Adoption of by-laws pursuant to the Waste Management Law	2007	Ministry of Tourism and Environmental Protection/ future Environmental Protection Agency Relevant state and local bodies	
Further harmonisation with the EU legislation, together with strengthening				

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
capacities for proper waste handling and enhancing the waste database (general goal 3)	National waste Management Plan	2007	Ministry of Tourism and Environmental Protection	Number of constructed regional sanitary landfills
	Municipal waste Management Plans	2008	Local governments	
	Construction of regional sanitary landfills (priority landfills in the coastal region)	2007 – 2012 (and onwards)	Local governments Public Utility Companies Future unit for the implementation of communal infrastructure projects	Share of municipal wastes that are properly disposed (into sanitary landfills)
	Construction of a landfill for hazardous waste	200	Ministry of Tourism and Environmental Protection	
	Keeping data records on waste generation, solid waste management and issued permits (pursuant to Article of the Waste Management Law)	200	Ministry of Tourism and Environmental Protection Ministry of Health, Labor and Social Welfare Local governments	
	Raising awareness on the importance of proper handling of wastes	2007 - 2012	Ministry of Tourism and Environmental Protection Public Utility Companies N Os	
	Stimulation of recycling programmes	2007 - 2012	Ministry of Tourism and Environmental Protection Ministry for Economic Development Local governments Private sector	Efficiency of inspection services and courts
Consistent application of sanctions in case of non-compliance		2007 permanently	Public administration bodies, especially inspectorates and courts	

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
Improve enforcement of laws and implementation of strategic documents, plans and programmes; ensure adequate public participation in the process of their preparation (general goal)	Gradual overcoming of the gap between the existing laws and strategic documents and the level of their implementation, primarily through institutional capacities building and by creating a favourable environment	2007 - 2010	Government and other executive bodies Judiciary - prosecutors and courts NOs (through proper monitoring and critical attitude towards the authorities)	Qualifications and competencies of civil servants Public perception of the level of implementation of regulations and plans
	Continuation of public administration reform and improvement of administration's efficiency in line with the requirements resulting from the EU integration processes; improved vertical and horizontal co-ordination within public administration	2007 – 2010	Government and other executive bodies, with the assistance of public agencies and institutions University	Public perception of the openness of the decision-making process
	Further steps on the establishment of a decision-making process that is transparent and open for the public	2007 – 2010 (and onwards)	All state administration bodies Political parties Civil sector	Number and quality of public discussions and other consultations in drafting policies and plans Co-ordination mechanisms among different administration levels
Prevention of corruption (general goal)	Adoption of anti-corruption policy with specific measures to prevent corruption in certain areas, especially in privatisation, urban planning and construction industry, judiciary and natural resources management as the areas where corruption may substantially jeopardise the public interest	2007	Parliament Government and other executive bodies Civil sector (NOs, media)	Anti-corruption policy adopted Number of complaints due to non-compliance with the Law on Free Access to Information
	Consistent application of the Law on Free Access to Information	2007 permanently	All state administration bodies Civil sector (NOs, media)	Number of anti-corruption campaigns
	Anti-corruption campaigns	2007 - 2010	Government Civil sector (NOs, media)	Number of processed cases of corruption and abuse of powers

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
Decentralisation (general goal 4)	More active contribution of the judiciary to anti-corruption programmes	2007 - 2010	Judiciary and prosecution Civil sector (NGOs, media)	Share of local governments tax revenues expressed as a % of total tax revenues; share of budgetary appropriations allocated to local governments Number of inter-municipal projects
	Further improvement of the legislation in the field of fight against corruption, strengthening institutions for the implementation of anti-corruption policy and increase in the efficiency of the judicial system (changes and amendments of the Criminal Code, especially in the field of capacity building of the Prosecutor's Office and introduction of secret surveillance measures)	2007 permanently	All state administration bodies Political parties Civil sector (NGOs, media) Education system at all levels	
	Consistent implementation of the Law on Local Self-government	2007 - 2008	Local self-governments Government Judiciary	
	Institutional and financial strengthening of local authorities, especially in the fields where the new laws devolve significant and demanding responsibilities to municipalities	2006 - 2008	Government, in particular Ministry of Finance Local authorities	
	Capacity building at the local level, particularly in the fields in which local bodies have significant and demanding responsibilities (including, but not limited to, water supply, water management, waste, spatial planning)	2007 - 2012	Government, executive bodies, public agencies and institutions University NGOs International organisations and programmes	
	Strengthening of inter-municipal co-operation and of regional approaches in resolving problems	2007 - 2009	Union of Municipalities Local self-governments Government, executive bodies, public agencies and institutions	

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
Providing quality education for all children; attainment of Millennium Development goals and the goals of the National Action Plan for Children (general goals 1 and 2)	Provide for all children (especially Roma) of primary school age to enrol and complete primary education	2007 - 2010	Ministry of Education and Science Institute for Education	Primary school enrolment rate Number of children enrolled in fifth grade compared to the total number in that age group Literacy in the age group 5-2
	Provide free textbooks for Roma children and children from disadvantaged families	2007 - 2010	Ministry of Education and Science Institute for Education	Number of distributed textbooks in relation to total number of children (MOP beneficiaries)
	Implement inclusive education	2007 - 2010	Ministry of Education and Science Institute for Education	Number of children covered by inclusive education Number of schools with technical possibilities for inclusive education
	Conduct teaching process based on the new curricula	2007 - 2010	Ministry of Education and Science Institute for Education Centre for Vocational Education and Training Schools	Share of pupils (percentage) studying according to the new curricula Ratio between the number of PCs in schools and pupils
Increase of sustainable development topics and contents in the educational curricula from pre-school to university levels	Preparation of syllabi for optional subjects for elementary schools	2007 - 2010	Ministry of Education and Science Institute for Education	Number of schools with optional subjects
	Preparation of syllabi for optional subjects for general secondary schools	2007 - 2010	Ministry of Education and Science Institute for Education	Number of schools with optional subjects

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
(general goal 3)	Quality implementation of the syllabi with sustainable development topics	2007 – 2012	Ministry of Education and Science Institute for Education Centre for Vocational Education and Training	Number of teachers trained through workshops and seminars
	Designing 20% of the free syllabi (from pre-school to university levels) in a way to incorporate sustainable development topics	2007 - 2012	Ministry of Education and Science Institute for Education Schools	Number of syllabi supplemented with sustainable development topics
	Realisation of specific projects offered by NGOs and relating to sustainable development and environmental protection through the schools	2007 - 2010	NGOs Schools	Number of projects implemented in schools
Improve the health-related quality of life (while promoting healthy life styles)	Promotion of healthy lifestyles to change behaviours (Smoking Control Strategy, Safe Food Strategy, Violence Prevention Strategy and the Action Plan for Prevention for Drug Abuse) and improvement of health-related safety measures	2007 – 2012	Ministry of Health, Labor and Social Welfare Institute for Public Health Ministry of Education and Science Ministry of Interior and Public Administration Local self-governments NGOs	Percentage of smokers in the total population Number of campaigns/training focused on: smoking prevention, proper nutrition, violence prevention, drug abuse prevention, prevention of contagious diseases, increased traffic safety
	Improvements in the control of health safety of food and consumer goods, drinking water quality and other parameters that affect health; harmonisation with the EU standards	2007 - 2010	Relevant inspection services Institute for Public Health CETI	Microbiological safety of food and drinking water Health safety of food and drinking water Drinking water quality Air quality in urban areas

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
Preservation and improvement of public health with particular emphasis on vulnerable groups (general goals 1 and 2)	Development of multi-sectoral programmes with the aim of establishing the importance of the influence of external factors on health and the development of national environment and health action plan	2007 - 2010	Inter-sectoral teams Ministry of health, Labour and Social welfare Ministry of Tourism and Environmental Protection Expert institutions (Institute for health, CETI, etc.), International organisations	Research projects developed and adopted National Environment and health Action Plan (NEAP)
	Development and enhancement of programmes aimed at raising the level of knowledge as a tool for prevention of diseases (particularly for children and other vulnerable categories)	2007 - 2010	Ministry of health, Labour and Social welfare Ministry of Education and Science Institute for health Relevant health institutions	health education programmes developed and adopted Indicators of public health
	Prevention, timely detection, treatment and suppression of contagious, chronic non-contagious and malignant diseases, including the immunisation against main contagious diseases, as well as prevention and control of local endemic diseases	2007 - 2012	Ministry of health, Labour and Social welfare Institute for Public health Relevant health institutions	Morbidity indicators Indicators on the coverage of the population with specific health care measures
	health protection of general population, whereas priorities are protection of children and the young, protection of women in relation to family planning, pregnancy, delivery and maternity, as well as protection of the elderly	2007 - 2012	Ministry of health, Labour and Social welfare Relevant health institutions	Indicators of health status of women and children (infant mortality rate, children under five mortality rate, mortalinity rate, maternal mortality rate)
	Increasing the level of mental health in general population, treatment and rehabilitation of mentally ill persons, and special accommodation and treatment of mentally ill persons who may cause harm to themselves or to the environment in which they live, in accordance with the Strategy of mental health improvement	2007 - 2012	Ministry of health, Labour and Social welfare Relevant health institutions International institutions	Indicators of availability of health care to women and children Indicators of mental

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
Enhancing the quality of social protection services and economic empowerment of needy persons (general goal 2)	Proper treatment of traumatised people, especially in cases of traumas caused by car accidents	2007 -2012	Ministry of Health, Labour and Social Welfare Relevant health institutions	patients morbidity and mortality Potentially lost years of life
	Adopt the strategy for development of social and child protection (the strategy consists of programmes that need to be implemented to enhance social and child protection)	2007	Government of the RoM Ministry of Health, Labour and Social Welfare	Ratio between total population and social assistance beneficiaries in a given area Poverty rate and inequality indicators (statistical data of the Centres for Social Work, Monstat and NGOs) Number of IDPs and REA employed through special programmes conducted by the Ministry of Health, Labour and Social welfare
	Adoption of the "Network of institutions of social and child protection" – an act to establish the types, the number and distribution of these institutions in Montenegro	2007	Government of the RoM Ministry of Health, Labour and Social welfare	
	Adoption of the Strategy for integration of people with disabilities into the Montenegrin society	2007	Government of the RoM Ministry of Health, Labour and Social welfare NGO sector	
	Establishment of centre for local integration of displaced persons within the Commissariat for Displaced Persons	2007	Ministry of Health, Labour and Social welfare Commissariat for Displaced Persons International organisations NGOs	
	Employment programmes for displaced persons	2007 - 2010	Ministry of Health, Labour and Social welfare Ministry of Education and Science Employment Agency Directorate for Development of SMEs NGOs	

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
	Programmes for provision of basic housing for displaced persons	2007 - 2010	Ministry of Health, Labour and Social Welfare Ministry for Economic Development Local Governments Commissariat for Displaced Persons International organisations	
	Access to social and child protection system financial assistance for displaced persons	2007 - 2012	Ministry of Health, Labour and Social Welfare Centres for Social Work Commissariat for Displaced Persons Red Cross NGOs International organisations	
	Improving employment of RAE (Roma, Ashkelia, Egyptians) population	2007 - 2012	Ministry of Health, Labour and Social Welfare Ministry of Education and Science Union of Employers Roma Associations Local self-governments	
Strengthening of gender equality (general goal 2)	Adopt Gender Equality Law	2007	Government of the RoM Parliament of the RoM	Enrolment rates of women to higher educational institutions Unemployment rates for women Participation of women in the Parliament
	Adopt the National Action Plan for Gender Equality	2007	Government of the RoM Gender Equality Office	
	Implement the National Action Plan for Gender Equality	2007 - 2009	Ministries Gender Equality Office Local self-governments NGOs	
	Ensure mechanisms for equal participation of women and man in decision-making regarding the economic development and distribution of benefits	2007 - 2012	Government of the RoM	

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
Preservation of cultural heritage and cultural diversity (general goal 5)	Development of the National Strategy on Cultural Policy	2008 - 200	Ministry of Culture, Sports and Media	Presence and consensus of relevant institutions and organisations Transparency of the strategy drafting process Coverage of key issues in culture
	Drafting a set of laws on cultural heritage - Law on Cultural heritage - Law on Museums - Law on Archives - Law on Libraries	2007 - 2008	Ministry of Culture, Sports and Media	Enactment of the laws
	Development of data base on cultural heritage (movable and immovable)	2007 - 200	National Institute for Monument Protection National Museum of Montenegro	Number of institutions involved in the unique information system Number of monuments with digitised records
	Development of archaeological map and the archaeological sites data base	2007 – 2012	Centre for Archaeological Research of Montenegro	Number of processed municipalities for 2 months Number of archaeological sites with digitised records
	Media campaigns on cultural diversity	2007-2008	Ministry of Culture, Sports and Media Local self-governments	Diversity and number of activities during campaigns Funds spent on campaigns
	Development of the Management Plan for the world heritage Site - otor	2007	Regional Institute for Monument Protection otor	Municipality of otor Evaluation of the plan by the UNESCO's World heritage Committee
	Preparation and adoption of the Law on Illicit Media Concentration	2007 - 2008	Ministry of Culture, Sports and Media Parliament of the RoM	Enactment of the law

Priority objectives (relationship with general goal)	Measures	Deadlines	Responsible agencies	Indicators
Increasing professionalism of the media and providing for a more substantial contribution to raising public awareness on sustainable development and to free access to information (general goals 3 and 4)	Training for journalists (particularly on “research journalism”, contribution to free access to information and sustainable development issues)	2007 - 2008	Media associations Media	Number of training’s/ participants
	Increase of programmes dedicated to sustainable development issues in the printed and electronic media (especially in the programmes of Public Broadcasting Service)	2007 - 2012	Public broadcasting services and other electronic and printed media	Number of hours of programme dedicated to sustainable development on the public broadcasting service
	Development of the national strategy to address the issue of illegal construction	2007-2008	Ministry of Economic Development	Strategy completed
Halting illegal construction and legalisation of buildings by observing the principles and goals of the Vienna Declaration and by using positive experiences of other countries in combating illegal construction (general goals 2 and 4)	Development of a data base of illegally constructed buildings, tracking and recording the changes; enable full public availability of these data	2007	Ministry of Economic Development Local self-governments	Data on the number of illegal buildings available
	Conduct legalisation of illegally constructed buildings while observing criteria set in advance and respecting human rights	2007 - 2008	Ministry of Economic Development Local governments	Number of legalised buildings
	Remove architectural barriers (curbstones) to enable access for disabled people to public and educational institutions	2007 - 2009	Local self-governments Ministry of Economic Development	Number of towns with adapted curbstones
Improving the quality of life and safety in urban areas, focusing on the living conditions of specific (marginalised) target groups; establishing a responsible attitude of the citizens towards the urban	Provide minimum level of infrastructure and utilities (drinking water, sewage, power), particularly for refugee, IDPs and Roma neighbourhoods	2007 - 2010	Government of RoM Responsible ministries and institutions Local self-governments	Number implemented projects
	Increase security in urban areas	2007 - 2009	Local self-governments Ministry of Interior and Public Administration	Number of criminal offences in urban areas

Priority objectives (relationship with general goal) environment	Measures	Deadlines	Responsible agencies	Indicators
(general goals 2 and 5)	Provide space, programmes and activities for gathering of certain categories of population (youth, elderly, women, etc) in order to create better quality amenities for these target groups; encourage activities of NGOs, businesses, community-based organisations, associations of artists and others to develop programmes aimed at “activating” public areas such as the squares, parks, etc	2006 - 2012	Local self-governments Local communities Centres for Culture	Public surveys on quality of life in urban areas Number of activated public areas and number of activities undertaken



APPENDIX 2 - REFERENCES

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(Footnotes)

1 There is an ongoing review of the Master Plan for the Development of Tourism

