Annex
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ENVIRONMENTAL POLICY STRATEGY 2009–2015

(Informative section)

Ministry of Environment
Riga, 2009

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LIST OF THE ABBREVIATIONS USED

RES	renewable energy sources
NPP	nuclear power plant
UN	United Nations
BSAP	HELCOM Baltic Sea Action Plan
WEEE	waste electrical and electronic equipment
EEC	European Economic Community
EC	European Community
MoE	Ministry of Economics
ERDF	European Regional Development Fund
EU	European Union
ETS	emissions trading scheme
MoF	Ministry of Finance
HELCOM	Helsinki Commission
MoI	Ministry of Interior
GDP	gross domestic product
MoES	Ministry of Education and Science
SPNT	specially protected nature territories
EU MS	EU Marine Strategy
LIFE	European Community Financial Instrument for the Environment
LEGMA	Latvian Environment, Geology and Meteorology Agency
CoM	Cabinet of Ministers
NATURA 2000	specially protected nature territories of European importance
PCB	polychlorinated biphenyls
SAICM	Strategic Approach to International Chemicals Management
GHG	greenhouse gases
MoT	Ministry of Transport
MoRDLG	Ministry of Regional Development and Local Government
REACH	Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
RBD	river basin district
WB	water body
WFD	Water Framework Directive
MoH	Ministry of Health
MoEn	Ministry of Environment
EPS	Environmental Policy Strategy 2009–2015
SES	State Environmental Service
MoA	Ministry of Agriculture

INTRODUCTION

Environmental Policy Strategy (hereinafter – the EPS) is drafted and will be used to form a basis for preservation and restoration of environmental quality, as well as for sustainable use of natural resources, while at the same time limiting the impact of hazardous environmental factors on human health.

Until the end of 2008 the basic principles and objectives of the environmental policy have been set forth by the National Environmental Policy Plan 2004–2008. During the drafting of the EPS the objectives and tasks set out in the previous plan, as well as their implementation were evaluated.

The **overall objective** of the environmental policy is to provide the public with the opportunity to live in a clean and well-arranged environment through sustainable development, preservation of environmental quality and biological diversity, sustainable use of natural resources, as well as participation of the public in the decision-making and its awareness of the environmental situation.

The EPS has been drafted by taking into account insufficient funding to be expected in the subsequent years resulting from the economic crisis, thus it will be possible to implement only tasks of the highest priority. It is assumed at the same time that the financial situation in the country will have been improved by the end of the period covered herein.

The human impact on the environment and nature causes the following kinds of damage:

- damage to the environment – measurable adverse changes in natural resources or measurable impairment of functions related to natural resources, which may occur directly or indirectly. A function related to natural resources is the benefit gained by the public or environment from the relevant natural resource;
- damage to soil or subterranean depths – any change or pollution caused by direct or indirect introduction of chemical substances (preparations), organisms or micro-organisms into the soil or subterranean depths and presenting a risk to human health or having significant adverse effects on human health or the environment;
- damage to specially protected species or habitats – any damage having significant adverse effects on specially protected nature territories or micro-reserves, the achievement or maintenance of favourable conservation status for specially protected species or habitats;
- damage to waters – any damage having significant adverse effects on the ecological or chemical quality, quantitative status or ecological potential of a particular water body.

In order to limit and prevent further damage to the environment and human health or impairment of functions related to natural resources, it is required to implement all the necessary and practically possible measures for management of the situation, delimitation and collection of all polluting substances that have been released into the environment and for elimination of other factors causing damage.

The clause 5(1) of Transitional Provisions of the Environmental Protection Law stipulates that the Cabinet of Ministers (hereinafter – the CoM) shall approve the Environmental Policy Strategy.

The EPS is a medium-term policy planning document setting forth objectives, problems to be solved, basic principles and results of the environmental policy, as well as lines of action for the achievement of the policy objectives.

By entering into an international commitment not only in the field of climate change, but also, for example, in the context of delivery of the Lisbon Strategy, Latvia has to fulfil two equally important and very complex tasks: promotion of economic growth along with social welfare and – at the same time – reduction of greenhouse gas (hereinafter – GHG) emissions by implementing energy efficiency measures, introducing environmentally friendly technologies, replacing fossil fuel with renewable energy sources, facilitating reduction and management of

risks caused by climate change, integrating this risk management throughout economic sectors at all levels (national, regional, local).
Considering that environment- and nature-related issues cover a very broad spectrum of problems, the EPS has been divided into five thematic sections – "AIR", "WATER", "LAND", "NATURE" and "CLIMATE". Each section describes the policy objective, policy and performance results, output indicators, as well as measures for achievement of policy objectives and results regarding each of the above mentioned fields.

Principles applied by the Environmental Policy Strategy

The national environmental policy is developed and decisions affecting the environment or human health are made in compliance with the following principles of environmental protection:
principle of sustainable development – provision of integrated and balanced development of public welfare, the environment and economy meeting the current social and economic needs of the population and ensuring the compliance with environmental protection requirements by not endangering the possibility to meet the needs of future generations;
principle of assessment – consequences of any such activity or measure that may substantially affect the environment or human health shall be assessed prior to authorisation or commencement of the relevant activity or measure. An activity or measure that may have adverse effects on the environment or human health, even if it complies with all environmental protection requirements, shall be allowed only if provided that the intended positive result for the public as a whole exceeds the damage caused by the relevant activity or measure to the environment and human health;
prevention principle – a person shall prevent the pollution and other adverse effects damaging the environment or human health as much as possible, but, if it is not possible, shall prevent the spread and the negative consequences thereof;
precautionary principle – it shall be admissible to limit or prohibit an activity or measure which may affect the environment or human health, but the impact of which is not sufficiently assessed or scientifically proved, if prohibition is a proportionate instrument for ensuring protection of the environment or human health. The principle is not applied to urgent measures implemented in order to prevent threats of damage or irreversible damage;
"polluter pays" principle – a person shall cover all costs related to the assessment, prevention, and limitation of pollution or elimination of consequences thereof caused by his or her activities;
principle of public awareness and participation – institutions shall promote the public awareness and education, listen to the public opinion and assess it.
When developing the environmental policy and making decisions, the basic principles of regional development stated by the Regional Development Law shall be observed.

Coherence with other policy planning documents covering environmental policy issues

Implementation of the environmental policy is related not only to the achievement of EPS objectives, but also to the policy planning documents and laws and regulations drafted in several other sectors already integrating environmental policy issues and covering specific objectives and measures to be carried out. Therefore objectives and actions to be undertaken that have been stipulated in other policy planning documents do not overlap with the ones set forth in the EPS.

The scope of the EPS includes the following policy planning documents:

- *National Development Plan 2007 – 2013* (approved by the Cabinet Regulations No. 564 of 4 July 2006) – the general purpose of this plan is to facilitate balanced and sustainable national development, as well as to increase Latvia's competitiveness.
- *National Strategic Reference Framework 2007–2013* (approved by the Cabinet Order No. 669 of 29 October 2007) is the main programming document of the Structural Funds and the Cohesion Fund in Latvia that establishes coherence between the cohesion policy and national priorities, substantiates the selection of such priorities, as well as defines the strategy for absorption of funds, management framework and ensures coordination of Member States' operational programmes and other financial instruments.
- *Sustainable Development Strategy of Latvia* (approved by the Cabinet Order No. 436 of 15 August 2002) stipulates the directions of sustainable development, including directions of development for water protection, climate change and protection of the ozone layer, use of natural resources, preservation of biodiversity and waste management. This strategy will become invalid upon approval of the new national long-term development planning document *"Sustainable Development Strategy of Latvia"*. The Ministry of Regional Development and Local Government is responsible for drafting the strategy.
- *Education Development Strategy 2007–2013* (approved by the Cabinet Order No. 742 of 27 September 2006) – the key purpose of this strategy is to provide the population with a lifelong opportunity to obtain high-quality education according to their individual interests and abilities, as well as needs of the national economic development. In order to promote environmental education the strategy set forth the following tasks – to increase the number of state-funded student places in fields of natural sciences, engineering and environmental sciences in higher education establishments and to furnish study rooms for natural sciences in general education establishments and vocational training establishments with up-to-date equipment.
- *Land Policy Strategy 2008–2014* (approved by the Cabinet Order No. 613 of 13 October 2008) – the purpose of this strategy is to ensure sustainable use of land which is a unique natural resource.
- *Latvian Rural Development National Strategy Plan 2007–2013* (approved by the Cabinet Order No. 797 of 17 October 2006) – the overall objective of this plan is to ensure prosperity for the people living in sustainably populated countryside of Latvia. The objective of the programme's activity – sustainable management of rural natural resources – is to support preservation of nature values of rural areas, the attractive landscape and biodiversity.
- *National Programme on Biological Diversity* (approved by the Cabinet Protocol No. 23 (paragraph 22) of 16 May 2000) – strategic objectives of this programme are the following: to conserve and restore ecosystems and the diversity of their natural composition; to conserve and promote the diversity of local wildlife species; to conserve the genetic diversity of wildlife species as well as that of cultivated plants and domestic animal breeds; to facilitate

preservation of the traditional landscape structure; and to ensure balanced and sustainable use of wildlife resources.

- *Programme of Long-term Preservation and Sustainable Use of Genetic Resources of Plants and Animals, Forest and Fish Used in Agriculture and Food Industry 2007–2009* (approved by the Cabinet Order No. 213 of 19 April 2007) – the purpose of this programme is to ensure long-term preservation and sustainable use of genetic resources of plants and animals, forest and fish used in agriculture and food industry, as well as to establish a unified system for preservation, documentation, description and research of these genetic resources.

- *National Programme for Combating Giant Hogweed 2006–2012* (approved by the Cabinet Order No. 426 of 6 June 2006) – the purpose of this programme is to reduce spreading of the Giant Hogweed as an invasive species by introducing a coordinated system for limitation of the Giant Hogweed at national level, thus mitigating the hazard to human health caused by this weed, preventing the endangerment of local ecosystems and decline of the biological diversity of natural phytocoenoses, preventing economic losses to agriculture, and preserving the visual quality of the typical Latvian rural landscape.

- *Strategy of Development of the Forest Industry and Related Sectors* (approved by the Cabinet Order No. 273 of 18 April 2006) – this document identifies the following development policy objectives in the forest sector: 1) management of Latvian forests shall be sustainable and internationally acknowledged; 2) the output of Latvian forest industry shall be competitive, with high added value, and it shall meet the client's needs; 3) the skill level of human resources and educational and scientific potential shall be sufficient to implement objectives of the forest industry and related sectors.

- *National Waste Management Plan 2006–2012* (approved by the Cabinet Order No. 860 of 29 December 2005) – the purpose of this plan is to prevent waste generation and to ensure considerable reduction of the total waste produced by promoting waste recycling.

- *Transport Development Strategy 2007–2013* (approved by the Cabinet Order No. 518 of 12 July 2006) – the overall objective of this strategy is establishment of a high-quality and competitive transport infrastructure integrated in the joint Eurasian transport system, as well as business environment, safe traffic and high-quality transit, logistics and public transportation services available to everyone.

- *First National Action Plan on Energy Efficiency 2008–2010* (approved by the Cabinet Order No. 266 of 20 May 2008) – the following action regarding the final consumers is stipulated in the section “Transport” of this plan: to ensure fuel savings in the transport sector and to strengthen the motivation of consumers for implementing energy efficiency measures in various areas of energy consumption.

- *Energy Development Strategy 2007–2016* (approved by the Cabinet Order No. 571 of 1 August 2006) – the purpose of this strategy is to develop a strategy for safe functioning of the energy supply system efficiently using resources which ensures efficient use of energy, the quality of life, economic growth and environmental quality.

- *Strategy for Use of Renewable Energy Sources 2006–2013* (approved by the Cabinet Order No. 835 of 31 October 2006) – the key objectives of this strategy are to increase the share of renewable energy sources in the Latvia's total energy mix, to promote security of the energy supply system of Latvia and to ensure long-term contribution of the renewable energy sources to the reduction of greenhouse gas (GHG) emissions.

- *Programme “Production and Use of Biofuels in Latvia 2003–2010”* (approved by the Cabinet Order No. 800 of 19 December 2003) – the main objectives of this programme are to provide the raw materials required for production of biofuels by using agricultural land areas of Latvia and to promote production and use of biofuels in Latvia.

- *Programme for Development of Biogas Production and Use 2007–2011* (approved by the Cabinet Order No. 371 of 14 June 2007) – the purpose of this programme is to develop production and use of biogas as a renewable energy source in Latvia, while comprehensively dealing with issues related to management of biodegradable by-products / residual products deriving from the production, treatment and processing, thus reducing the risk of soil, water and air pollution, as well as the potential risks to human health.
- *Climate Change Mitigation Programme 2005–2010* (approved by the Cabinet Order No. 220 of 6 April 2005) – the long-term objective of this programme is to foster mitigation of the climate change resulting from human activities by implementing measures oriented towards coordinated reduction of greenhouse gas emissions and an increase in capturing carbon dioxide by participating in the flexible mechanisms envisaged in the Kyoto Protocol, attracting investments to projects focusing on reduction of GHG emissions and supporting other economically justified international cooperation on reduction of GHG emissions.
- *National Programme for the Assessment and Management of Flood Risks 2008–2015* (approved by the Cabinet Order No. 830 of 20 December 2007) – the purpose of this programme is to develop a water protection system that would contribute to mitigating the flood effects, as well as to create a system for assessment and management of flood risks in order to reduce the adverse effects of floods within the Community on human health, environment, cultural heritage and economic activities.
- *Action Programme for Pollution Reduction and Quality Improvement of Priority Fish Waters and Bathing Waters* (approved by the Cabinet Order No. 232 of 13 April 2004) – the purpose of this programme is to reduce pollution of priority fish waters and bathing waters and to ensure compliance of the quality of these waters with the requirements stipulated in the legislation.
- *Action Programme for Reduction of Surface Water Pollution Caused by Urban Waste Water and Hazardous Substances* (approved by the Cabinet Order No. 181 of 31 March 2004) – the purpose of this programme is to ensure good quality of surface waters by preventing further pollution and gradually reducing the existing pollution caused by emissions of public waste water, very hazardous and hazardous substances.
- *Action Programme for Vulnerable Zones subject to Special Requirements for Protection of Water and Soil against Pollution Caused by Nitrates from Agricultural Sources* (approved by the Cabinet Order No. 163 of 18 March 2004) – the purpose of this programme is to reduce and prevent further pollution of water and soil caused by nitrates resulting from agricultural activities.
- *Development Concept of the Latvian Geospatial Information* (approved by the Cabinet Order No. 718 of 20 November 2007) – the purpose of this concept is to present a theoretical and legal basis and to draft guidelines to be able during the subsequent period of development to create the possibilities for coordination and satisfaction of needs of various institutions for geospatial information, to save public funds and resources by ensuring interoperability and common use of the industry's products, as well as widespread availability of products and services and their efficient use both in public and private sector.
- *Strategy of Environmental Monitoring Programme 2009–2012* (approved by the Cabinet Order No. 187 of 11 March 2009) – the purpose of this strategy is to stipulate the environmental monitoring process in order to assess the environmental situation and efficiency of the implemented environmental policy measures. This strategy will be applied using 4 programmes – in the areas of air, water, land and biodiversity.
- *Information Society Development Strategy for 2006–2013* (approved by the Cabinet Order No. 542 of 19 July 2006) – the overall policy objective of this strategy is to develop a knowledge-based economy and to improve the quality of life through possibilities offered by

information and communication technologies. The human quality of life is closely related to the quality of the surrounding environment; therefore the use of information and communication technologies plays an important role, especially in provision of public services, raising awareness of the society on environmental issues and encouraging participation in dealing with environmental challenges.

The following is the most relevant legislation within the scope of the EPS:

- Environmental Protection Law (adopted on 2 November 2006);
- Law "On Pollution" (adopted on 15 March 2001);
- Law "On Environmental Impact Assessment" (adopted on 14 October 1998);
- Protection Zone Law (adopted on 5 February 1997);
- Water Management Law (adopted on 12 September 2002);
- Natural Resources Tax Law (adopted on 15 December 2005);
- Waste Management Law (adopted on 14 December 2000);
- Packaging Law (adopted on 20 December 2001);
- End-of Life Vehicles Management Law (adopted on 29 January 2004);
- Chemical Substances and Chemical Products Law (adopted on 1 April 1998);
- Law "On Radiation Safety and Nuclear Safety" (adopted on 26 October 2000);
- Law "On Subterranean Depths" (adopted on 2 May 1996);
- Law "On Specially Protected Nature Territories" (adopted on 2 March 1993);
- Law on the Conservation of Species and Habitats (adopted on 16 March 2000);
- Law "On the Rights of Landowners to Compensation for Restrictions on Economic Activities in Specially Protected Nature Territories and Microreserves" (adopted on 30 June 2005);
- Spatial Planning Law (adopted on 22 May 2002);
- Regional Development Law (adopted on 21 March 2002);
- Law on Information System of Encumbered Territories (adopted on 29 January 2009, effective as of 1 January 2011);
- Law on Circulation of Genetically Modified Organisms (adopted on 15 November 2007);
- Law on Forests (adopted on 24 February 2000);
- Fishery Law (adopted on 12 April 1995);
- Law "On Local Governments" (adopted on 19 May 1994);
- Law "On Participation of the Republic of Latvia in the Flexible Mechanisms of the Kyoto Protocol" (adopted on 13 December 2007);
- Biofuel Law (adopted on 17 March 2005);
- Energy Law (adopted on 3 September 1998);
- Law on Energy Performance of Buildings (adopted on 13 March 2008);
- Construction Law (adopted on 10 August 1995);
- Tourism Law (adopted on 17 September 1998);
- Road Traffic Law (adopted on 1 October 1997);
- Maritime Administration and Marine Safety Law (adopted on 31 October 2002);
- Law on Carriage by Road (adopted on 23 August 1995);
- Public Procurement Law (adopted on 6 April 2006);
- Cabinet Regulations No. 175 "Regulations on National Environmental Indicators" (approved on 24 February 2009).

I AIR

1.1 DESCRIPTION OF THE SITUATION

In Latvia, as in the rest of European Union (hereinafter – the EU) Member States, there are quality standards and characteristics in force establishing air quality requirements for a number of air-polluting substances. Air quality requirements are stipulated in the Cabinet Regulations No. 588 of 21 October 2003 "Provisions for Air Quality".

On 21 May 2008 a new Directive 2008/50/EC of the European Parliament and of the Council on ambient air quality and cleaner air for Europe was adopted, and it includes requirements stipulated in the earlier directives, as well as new air quality standards for fine particulate matter $PM_{2,5}$. The new air quality directive was adopted, because the studies of air quality had shown that pollution caused by fine particulate matter reduced the statistical life expectancy on average by nine months, and it formed a basis for loss of 3.6 million life years or a cause of 348,000 premature deaths in the EU. The new air quality directive has to be transposed into national legislation by 11 June 2010.

In general, the air quality in Latvia can be considered as good. Nevertheless, according to the results of air quality assessment the following air quality standards have been exceeded:

- annual limit value of nitrogen dioxide (NO_2) for the protection of human health in Riga;
- annual and daily limit value of particulate matter PM_{10} for the protection of human health in Riga, Liepāja;
- annual limit value of benzene for the protection of human health in Riga; however, the standard was not exceeded at the monitoring station on Krišjāņa Valdemāra Street.

The lower assessment threshold of pollution indicating a situation when the existing level of pollution can create air quality problems has been exceeded in respect to benzene in the cities of Riga, Ventspils, Liepāja and Rēzekne; the hourly limit values of nitrogen dioxide have been exceeded in Riga, Liepāja, Rēzekne, but annual limit values – in Riga and Liepāja; the annual and daily limit values of particulate matter PM_{10} have been exceed in Riga, Liepāja, Ventspils, Olaine and Rēzekne.

In addition, to prevent adverse effects caused by odours interfering with human comfort, the Cabinet Regulations No. 626 of 27 July 2004 "Regulations on Methods for Identification of Odours Caused by Polluting Activities and Procedure for Limiting the Release of Such Odours" are in force. Although in general complaints from the population regarding the effects of odours have decreased, regional environmental boards of the State Environmental Service (hereinafter – the SES) still receive them frequently.

In order to reduce long-distance transboundary transport of air pollution, pursuant to the requirements of the United Nations Economic Commission for Europe (hereinafter – the UNECE) and the EU, the national ceilings have been established in Latvia for total emissions of the following pollutants into the air – sulphur dioxide, nitrogen dioxide, volatile organic compounds and ammonia. Both UNECE and EU requirements on total emissions of the above-mentioned pollutants into the air are periodically reduced, thus ensuring reduction in transboundary transport of air pollution caused by these pollutants. So far Latvia has successfully fulfilled its obligations towards the UNECE and the EU; therefore effects of the transboundary transport of air pollution are gradually decreasing in relation to Latvia. Currently, the European Commission is drafting new requirements for Member States on the national ceilings for total emissions of pollutants into the air, and these requirements are expected to be stricter. To fulfil these requirements of the UN Economic Commission and the EU, Latvia has to adopt new measures for reduction of air pollutant emissions originating from various air pollution sources.

Although generally substances depleting the ozone layer have already been removed from the economic circulation, still some of these substances with a smaller potential of depleting the

ozone layer are still used in production of refrigeration equipment, fire safety and firefighting systems and equipment, as well as for pest control in food industry, and in very small amounts also in other industries. At the same time, the ozone layer is still critically thin. According to scientific studies, recovery of the ozone layer is expected to start only after the year 2010, and based on optimistic forecasts it will fully recover somewhere in the period 2060–2080. Currently, substances depleting the ozone layer are being removed from the economic circulation in Latvia according to the time schedules stipulated by the UN Environment Programme and the EU. However, in order to speed up the recovery of the ozone layer, additional UN and EU measures are to be introduced to terminate the use of substances depleting the ozone layer in the industries where these substances are still used and where technically acceptable alternative solutions do not exist at the moment.

As there are no nuclear sites in Latvia, the main task is to carry out radiation monitoring and to raise public awareness. There are five nuclear power plants (hereinafter – NPP) within the range of 300 km from the state border of Latvia, i.e. in Ignalina (Lithuania), Loviisa (Finland), Oskarshamn (Sweden), Sosnovyj Bor and Smolensk (Russia). From Latvia's perspective, potentially the most dangerous nuclear site is the Ignalina nuclear power plant since it is the nearest one (situated only 6 km from the state border of Latvia) and it uses reactors analogous to those used in the Chernobyl nuclear power plant, and also construction of a new nuclear power plant is planned in this territory. Therefore there are more monitoring stations in the Daugavpils district than in the rest of Latvia's territory. An air sampling and measurement station designed for monitoring radionuclide aerosol levels, the only station of this kind in Latvia, is also located in Daugavpils. The Latvian automated gamma radiation monitoring and radiation accidents early warning system comprises 16 monitoring stations.

Legislation has been drafted in the area of environmental noise in compliance with the EU requirements by setting forth specific tasks for drafting noise maps and an action plan for noise reduction. These maps and action plans must be reviewed every 5 years. The noise maps have to reflect the effects of road, railway and air traffic and industrial sites via specific values of noise indicators, exceedances of noise pollution, number of persons being affected by the noise in the particular area. Local governments draft maps and action plans for agglomerations, while the Ministry of Transport – for roads, railroads and airports. In 2008 a strategic noise map was drafted for the agglomeration of Riga including Riga City, Baloži town, part of Jūrmala town and amalgamated municipality of Salaspils, amalgamated municipality of Stopiņi, as well as parts of rural municipalities of Babīte, Garkalne, Mārupe and Olaine; noise maps were also drafted for five road sections with traffic intensity of more than 6 million vehicles per year. This map shows the noise level during the day, evening and night.

The EPS does not duplicate the objectives and actions to be undertaken stipulated in the Strategy of Environmental Monitoring Programme 2009–2012, Transport Development Strategy 2007–2013, Strategy for Use of Renewable Energy Sources 2006–2013, Programme for Development of Biogas Production and Use 2007–2011, Energy Development Strategy 2007–2016, Latvian Rural Development National Strategy Plan 2007–2013, Action Programme on Reduction of Total National Emissions and informative report on measures for reduction of total national emissions into the air (reviewed by the Cabinet on 4 September 2007).

1.2 PROBLEMS CALLING FOR IMPLEMENTATION OF A SPECIFIC GOVERNMENT POLICY

1.2.1 According to the monitoring data of the Latvian Environment, Geology and Meteorology Agency, air quality standards are most frequently exceeded in respect to particulate matter PM_{10}, nitrogen dioxide and benzene. The above-mentioned exceedances of air quality standards are most often observed in Riga City.

1.2.2 Forecasts for emissions of air pollutants suggest that it may be difficult for Latvia to comply with and not exceed the emission ceilings envisaged in the Thematic Strategy on Air Pollution, especially in respect to emissions of nitrogen dioxide which in its turn will make it difficult to meet new requirements of the UN Economic Commission for Europe and the EU and to decrease national ceilings for total emissions into the air in order to reduce transboundary air pollution.
1.2.3 No efficient and systematic measures for improvement of air quality and reduction of total national emissions into the air are being implemented.
1.2.4 Population in Latvia lacks awareness of air quality-related issues and particularly of measures ensuring improvement of air quality.
1.2.5 Substances depleting the ozone layer and fluorinated greenhouse gases are still used in the national economy, and their control and removal from the economic circulation is a complex and expensive administrative matter.
1.2.6 The number of people affected by the noise has not been determined so far, as well as measures have not been identified for reduction of effects produced by exceedances of the noise level or for maintenance of the existing noise level, if it is not exceeded.

1.3 POLICY OBJECTIVE

To ensure air quality in compliance with the requirements provided for in the legislation through involvement of local governments, businessmen and the public.

1.4 POLICY RESULTS, PERFORMANCE RESULTS AND OUTPUT INDICATORS FOR ACHIEVEMENT OF THESE RESULTS

1.4.1 Policy results and their output indicators

Policy results	Output indicators	2007	2010	2012	2015
1.4.1.1 Air pollution[1] has reduced	1. Total volume of national emissions of SO_2, thousands of tonnes per year	2.8	2.8	2.8	4.8
	2. Total volume of national emissions of NO_x, thousands of tonnes per year	44.4	43.9	43.3	42.8
	3. Total volume of national emissions of non-methane volatile organic compounds (NMVOCs), thousands of tonnes per year	61.7	58	56	53
	4. Total volume of national emissions of NH_3, thousands of tonnes per year	15.3	14.9	14.6	14.2
1.4.1.2 The radioactivity level does not exceed the acceptable standards	total national annual dose of gamma background, μSv	940	1000	1000	1000

1.4.2 Performance results and their output indicators

Performance result	Output indicators	2008	2009	2010	2011	2012	2013
1.4.2.1 Reduction in the total level of national air pollution is achieved[2]	1. Total volume of national emissions of SO_2 determined, % compared to 2008	100	100	100	90	80	70
	2. Total volume of	100	100	100	93	87	80

[1] The forecast for the year 2020 according to the study "Latvia's interim objectives of national emission ceilings for individual air pollutants in 2020 in compliance with the amendments to the Directive 2001/81/EC and Directive 2003/35/EC".
[2] Compared to the volume of emissions set in the Cabinet Regulations No. 507 of 9 September 2003"Regulations on national ceilings of total emissions into the air".

	national emissions of NO_x determined, % compared to 2008						
	3. Total volume of national emissions of non-methane volatile organic compounds (NMVOCs) determined, % compared to 2008	100	100	100	93	86	79
	4. Total volume of national emissions of NH_3 determined, % compared to 2008	100	100	100	92	84	76
1.4.2.2 The public is provided with the operational information on volumes of air and radioactive pollution	1. Number of monitoring stations for rapid determination of dangerous changes in the air quality (early warning system)	6	6	6	6	6	6
	2. Number of monitoring stations for determination of changes in the equivalent dose rate of gamma radiation	16	16	16	16	16	16
1.4.2.3 The environmental noise level has been identified, and measures for reduction of the noise level are stipulated	1. Number of noise maps drafted per year	100	0	0	0	138	0
	2. Number of annually drafted action plans for reduction of effects produced by the noise	0	2	0	0	0	5
1.4.2.4 The public is informed about the air quality related issues, and involvement of the public in reduction of air pollution is promoted	Number of annual public awareness and education measures carried out by national institutions	1	1	2	2	2	2

1.5 NEXT STEPS

Measures for achievement of the policy objective	Institutions involved	Implementation timeframe
1. To implement air quality improvement programmes within local governments, to assess and improve the efficiency of measures implemented earlier by local governments;	local governments, MoEn,	2009–2015

	MoRDLG	
2. To ensure introduction and implementation of the new EU directives on improvement of air quality (especially in respect to particulate matter $PM_{2,5}$);	MoEn, MoRDLG, local governments	2009–2020[3]
3. To promote introduction of new technologies and rational use of resources, thus reducing air pollutant emissions in the sectors of energy, manufacturing, transport and agriculture, as well as in households;	MoEn, MoE, MoT, MoA	2009–2015
4. To adopt and introduce legislation ensuring efficient monitoring and control of substances depleting the ozone layer and of fluorinated greenhouse gases;	MoEn, MoE	2009–2015
5. To coordinate and follow up introduction of the best available techniques, environmentally friendly technologies and cleaner production in the national economy (control of emissions, including flue gases);	MoEn, MoE	2009–2015
6. To increase efficient and rational use of energy sources, including support to projects aimed at construction of CHP plants, increasing energy efficiency and improvement of energy efficiency of buildings;	MoE, MoEn, MoRDLG	2009–2015
7. To promote replacement of inefficient and obsolete combustion plants in the individual heating systems with up-to-date and more environment-friendly installations;	MoEn, MoE	2009–2015
8. To create and maintain a register of pollutant emissions and their transport;	MoEn	2009–2015
9. To maintain air quality and radiation monitoring stations;	MoEn	2009–2015
10. To provide population of Latvia with information on monitoring data, especially people living in the immediate vicinity of the Ignalina NPP;	MoEn	2009–2015
11. To reduce people's dissatisfaction with the air quality through provision of information on air quality related issues and on individual options for decreasing air pollution;	MoEn, MoH, MoRDLG, local governments	2009–2015
12. To draft action plans for reduction of the effects of noise and start their implementation;	MoT, local governments	2009–2015
13. To provide the public with information on environmental noise and envisaged measures for noise reduction.	MoT, local governments	2009–2015

[3] According to the deadline established in the Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe.

II WATER

2.1 DESCRIPTION OF THE SITUATION

In respect to surface and ground water resources per capita, Latvia can be compared to countries like Russia, Canada and Sweden that are the richest in water resources in the world. There are more than 12,000 rivers and nearly 4,000 lakes and reservoirs in Latvia covering 3.7 % of the country's territory in total. Surface water resources are assessed as being 33–35 km^3, while ground water resources – approximately 1.4 million m^3/24 h which exceeds water abstraction by four times and fully ensures the water supply from underground sources. Nevertheless, more than 55 % of the volume of water flowing into the Gulf of Riga or directly into the Baltic Sea through the territory of Latvia originates outside our state borders, and Latvia can only partially affect the protection of its quality, control of its pollution, monitoring and provision of relevant information to Latvia and other countries. Therefore our country is characterised by the greatest transboundary effects and risks in the ecoregion of the Baltic Sea in relation to the quality of surface waters (less ground waters). This factor is respectively presented in the reports on implementation of the Water Framework Directive in Latvia submitted to the European Commission. Complete and overall improvement of water quality in rivers with dominant transboundary effects, as well as in the Gulf of Riga, is hard to imagine without full involvement of third countries (the Republic of Belarus and Russian Federation) in protection of transboundary rivers and in work of the Baltic Marine Environment Protection Commission or Helsinki Commission (hereinafter – the HELCOM).

The sea coastline of Latvia is nearly 500 km long, and the waters under the jurisdiction of Latvia include territorial waters extending 12 nautical miles in breadth, and an exclusive economic zone and a continental shelf with the surface area of 28,000 km^2. However, no national borders exist in respect to the environmental quality in the Baltic Sea, and all countries of the region share the responsibility for protection of the marine environment. Being an inland sea, the Baltic Sea is characterised by a relatively slow saltwater exchange with the North Sea, while a large inflow of plant nutrients from the rivers significantly affects the process of eutrophication. During the last decades saltwater exchange between the Baltic Sea and the North Sea is decreasing which could be related to the effects of climate change. The new EU marine environment policy has defined the marine environment as the key asset in development of the maritime policy, since the sea accumulates all the pollutants discharged into rivers and partially those emitted into air. Therefore the marine environment clearly shows both efficiency of the legislation in the EU environmental sector and success of each Member State in protecting the environment. In accordance with the EU Treaty, transboundary issues fall within shared competence of the EU and its Member States governed by the EU legislation and regional seas conventions that are binding also for third countries outside the EU. The EU Marine Strategy (hereinafter – the EU MS) defines the Baltic Sea as a single ecoregion where the environmental situation depends on efficient activities of the EU Member States at national level and successful negotiations between the EU and third countries.

The EPS does not duplicate the objectives and actions to be undertaken as set forth in the Strategy of Environmental Monitoring Programme 2009–2012, National Programme on the Assessment and Management of Flood Risks 2008–2015, Action Programme for Pollution Reduction and Quality Improvement of Priority Fish Waters and Bathing Waters, Action Programme for Reduction of Surface Water Pollution Caused by Urban Waste Water and Hazardous Substances, Action Programme for Vulnerable Zones subject to Special Requirements for Protection of Water and Soil against Pollution Caused by Nitrates from Agricultural Sources and Latvian Rural Development National Strategy Plan 2007–2013.

2.1.1 Quality and protection of the marine environment

2.1.1.1 Global and regional measures for the marine environment protection

The global situation of the ocean and its seas continues to deteriorate, also the situation of European seas, though it is not threatening, does not show clear recovery symptoms. Nevertheless, it should be noted that the forecasted growth of economy is mainly related to ports and maritime transport, therefore it is important to reduce the risk of marine pollution through implementation of a stringent policy on marine environment protection.

By taking into account the global and transboundary nature of marine waters, their international judicial nature is defined by the UN Convention on the Law of the Sea adopted on 10 December 1982 which establishes a comprehensive framework for protection of marine resources and environment. In 1999, the Global International Waters Assessment initiative was launched, and the UN decided to carry out global marine assessment under the United Nations Environment Programme.

The EU implements a more stringent policy on marine environment protection introducing specific requirements on safety of ships and shipping, emissions from maritime transport and operation of ports. In 2005, the EU Marine Strategy (MS, COM/2005/504) was approved principles of which were further reinforced in the EU Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for Community action in the field of marine environmental policy (Marine Strategy Framework Directive, hereinafter – the MSFD) that is binding to EU Member States. It envisages individual responsibility of Member States for achievement of specific objectives by 2020 and is directly related to implementation of the Council Directive 2000/60/EC of 23 October 2000 establishing a framework for Community action in the field of water protection policy (hereinafter – the WFD) in Member States. However, the EU MSFD still does not improve relations between EU and third countries the impact of which on the marine environment in the Baltic Sea is at least equal or even greater than the impact of EU Member States. At the same time the Marine Strategy Framework Directive clearly defines the historical role of regional seas conventions emphasising the crucial importance of regional cooperation in achieving objectives of the directive through use of the existing regional institutional cooperation structures under regional sea conventions.

2.1.1.2 Environmental status of the Baltic Sea

The Baltic Sea region can be considered as one of the oldest examples of international cooperation in the area of marine environment protection. The Helsinki Convention on the Protection of the Marine Environment of the Baltic Sea Area was adopted in 1974 and amended in 1992. The HELCOM was established in 1980 with the aim to coordinate activities of its Contracting Parties. Within the framework of intergovernmental cooperation through the HELCOM, recommendations were elaborated and implemented as a result of which the tendency of increasing pollution of the Baltic Sea with hazardous substances, as well as with nutrients was stopped, and the pollution level has even decreased in certain Baltic Sea regions. Nevertheless, despite the measures already implemented, in general the pollution level in the Baltic Sea is high, thus requiring smart and cost-effective measures that would contribute not only to stabilisation of the pollution level, but also to its reduction. At the same time the increasing intensity of maritime traffic and the desire to use the sea for implementation of various infrastructure projects present new challenges to the scientific community of the Baltic Sea. The development and application of the marine spatial planning principles becomes more and more topical in order to reach a balance between the sea-related economic interests and protection of natural values.

HELCOM Member States together with the Commission for protecting and conserving the North-East Atlantic and its resources (OSPAR) substantially contributed to the development of the EU MS and Marine Strategy Framework Directive and put forward the ecoregion of the

Baltic Sea as a pilot project for implementation of the Directive in this ecoregion. The Baltic Sea Action Plan (hereinafter – the BSAP) drafted by the HELCOM and approved by the HELCOM Extraordinary Ministerial Meeting on 15 November 2007 in Krakow is the first political and detailed action plan for implementation of the Marine Strategy Framework Directive in the EU, as well as the first attempt to involve in these activities also Russia and Belarus as important partners. The Cabinet approved the BSAP by adopting the Cabinet Decision No. 64 (paragraph 58) in the meeting of 13 November 2007 and instructed the Ministry of Environment (hereinafter – the MoEn) to incorporate objectives and actions of this plan into the Environmental Policy Strategy, and recommended that the Ministry of Foreign Affairs (hereinafter – the MoFA), Ministry of Agriculture (hereinafter – the MoA), Ministry of Transport (hereinafter – the MoT), Ministry of Regional Development and Local Governments (hereinafter – the MoRDLG) and Ministry of Economics (hereinafter – the MoE) take into account this plan, when drafting sectoral policy planning documents and legislation, to the extent where the international treaties binding to the Republic of Latvia do not provide otherwise.

The quality of Latvian coastal waters and water in the Gulf of Riga shows certain slight trends towards long-term improvement due to reduction of the nitrogen concentration facilitated by both decline in industrial and agricultural activities and success in the area of waste water treatment, as well as introduction of good agricultural practice by construction of manure storage facilities and limiting the use of fertilisers. At the same time, the concentration of phosphorus has continued to increase due to the growing economic activity in the sector of logging instead of agriculture, which in its turn contributes to the development of cyanobacteria assimilating the atmospheric nitrogen. Based on the improving situation of sediments in the Gulf of Riga, it is expected that the concentration of phosphorus will start to reduce gradually in the subsequent years due to stronger accumulation of phosphorus in the sediments, as well as it is expected that reduction of the phosphorus concentration and thus changes in the environmental conditions will occur very slowly. This process could be accelerated by a well-considered approach to logging, e.g., by prevention of clear-cutting causing the release of biogenic substances or by limiting cutting areas located nearby rivers.

According to the requirements of the WFD one transitional water body (hereinafter – the WB) has been identified in Latvia. It is a low salinity area in the southern part of the Gulf of Riga, nearby estuaries of the rivers Daugava, Lielupe and Gauja. Also six coastal WBs along the Latvian coastline have been identified. The main point-source loads in these WBs are caused by discharges of waste water from the large cities, as well as by incoming pollution from the large rivers. Major construction works have been carried out to ensure the operation of ports, therefore it can be considered that a part of coastal and transitional WBs has been significantly altered. In addition, a special emphasis has to be put on such issue as the transboundary transport of pollution into the sea, including operation of the Butinge Oil Terminal nearby the border of Latvia. In general, Latvian transitional and coastal waters can be defined as waters which as a result of human activities have undergone significant alteration in the eco-system and in quality indicators describing their natural condition.

Major loads on the environmental quality of the Baltic Sea coast of Latvia and risks affecting this quality are the following:

1) increase in maritime transportation of goods, including oil products and hazardous substances (also in the vicinity of the Latvian sea coast);

2) insufficient resources to respond to accidents at sea;

3) risk of eutrophication and excessive growth of the toxic cyanobacteria;

4) overall increasing turnover of oil products in Latvian ports, as well as potential extraction of hydrocarbon in the continental shelf;

5) gas and oil pipelines constructed in the sea also increase the risk;

6) there is a risk that imprudent construction of wind power plants in the sea could present threats to the marine eco-system.

2.1.2 Quality of inland waters

Upon transposition of the WFD's requirements establishing that water protection measures shall be planned and implemented and their implementation, efficiency and usefulness shall be controlled within the borders of river basins and not within the administrative borders, Latvia has identified four river basin districts: Daugava, Gauja, Venta and Lielupe.

Plans for management of the Daugava, Venta, Lielupe, and Gauja river basin districts will be elaborated incorporating the environmental quality objectives, as well as programmes of measures will have to be drafted to achieve these objectives. Implementation of measures defined in the programmes for achievement of these objectives has to be commenced no later than in 2012 in order to fulfil the objectives during this programming period for management of river basin districts by 2015 at least in those WBs, where no risks would be identified and where it will be possible to meet the set quality objectives, and where fulfilment of these objectives will not require unreasonably high costs.

In compliance with legislation and taking into account the ecological typology of Latvian rivers and lakes, their anthropogenic loads and role in the national economy and nature protection, as well as other significant factors, data on 207 river and 262 lake WBs (which is the basic basins management unit) identified within the river basin districts were presented in the reports referred to in the Article 3 and Article 5 of the WFD that were forwarded to the European Commission in 2004 and 2005. The reports comprise evaluation of potential risks that could impede the achievement of environmental quality objectives and emphasise that despite the limited impact of nutrients and pollution identified in almost 4/5 of all surface WBs, in general the condition of Latvian inland waters can be regarded as relatively good. According to the limited available data on water quality (biological, hydromorphological, chemical and physico-chemical indicators), approximately 20% of water bodies (of the total number of water bodies identified) face the risk of not achieving good quality by 2015. The risk of eutrophication is caused by inflows of nitrogen and phosphorus compounds due to both natural and economic factors. Currently, in Latvia, as well as in several other EU Member States, the requirements regarding pollution released in the WBs are not differentiated depending on the size, susceptibility, current condition and other significant characteristics of the WB affected.

Latvia is a country rich in inland water resources and located on the coast of the Baltic Sea where water tourism and recreation on various water bodies is popular. A large part of lakes and rivers, as well as the seacoast are used for recreation and bathing in summer. The number of bathing areas in Latvia where the state monitoring of water quality is carried out by the state agency “Public Health Agency” (hereinafter – the PHA) has increased to 276. Having regard to exceedances of the limit and guide values of microbiological quality indicators of water in all bathing areas monitored, during the bathing season of 2007, 21% of bathing areas in Latvia did not meet the requirements on the long-term microbiological quality of water. A part of bathing prohibitions is issued due to excessive propagation of cyanobacteria in several lakes of Latvia. Bathing areas are affected by eutrophication which is influenced by both natural factors and inflows of nitrogen and phosphorus compounds in water bodies due to economic activity. Eutrophication in lakes and the sea and the related deterioration of ecological quality is a risk factor for excessive propagation of cyanobacteria.

Latvia implements the Blue Flag Campaign, which commenced in 1998 and is still popular. The Blue Flag is a voluntary eco-label awarded to bathing areas and marinas complying with 29 criteria in all by ensuring appropriate water quality, environmental management, environmental information and education, as well as facilities and service. Each year the compliance of Latvia's bathing areas and marinas with requirements of the Blue Flag criteria is assessed by the Commission for Assessment of Compliance of Bathing Areas and Marinas

which is chaired by the Minister for Environment and which operates pursuant to the Cabinet Order No. 44 "On Commission for Assessment of Compliance of Bathing Areas and Marinas" issued on 25 January 2006. In general, Latvia shows an upward trend towards increase, although slow, in number of bathing areas that are safe and compliant with the environmental quality requirements.

2.1.3 Quality of ground waters

Pursuant to the WFD's requirements, the territory of Latvia is divided into 16 groundwater bodies (GWB), 11 of which are transboundary, and 4 GWBs are located in the area of several river basin districts. Most (14) of the GWBs are hydraulically related to surface water bodies – mainly to the rivers Venta, Gauja and Salaca. Basically, these are Devonian artesian waters or, in other words, confined groundwaters, which are the main source of centralised drinking water supply in Latvia; on overall their resources significantly exceed amounts of water abstraction. These waters are well-protected against potential pollution; however, a problem is caused by their naturally high content of iron, high water hardness, increased concentration of sulphates, manganese, ammonium, sometimes also concentration of chlorides and arsenic; as a result of which water requires specific treatment before it is supplied to consumers. In order to protect these water resources protection zones have been established around the water intakes. In Riga, the centralised water supply system uses also water artificially recharged [into groundwater aquifers] from the lake Baltezers and water from the river Daugava, which, after being taken from the water reservoir of the Riga hydroelectric power plant, is prepared at the drinking water treatment plant "Daugava". All the main water consumer groups together do not entail risk to any of the GWBs from the perspective of water quantity.

Shallow groundwaters or non-confined groundwaters are common in sandy deposits of various origin, mainly Quaternary, the thickness of which does not exceed a few meters; they are spread in a fragmentary manner, therefore – not identified as separate GWBs. Non-confined groundwater aquifers are present also in the pre-Quaternary sedimentary deposits in the areas where the thickness of the Quaternary deposits is small. The availability of these resources for water supply is limited, and they are poorly protected against both point source and diffuse pollution caused by economic activity. Therefore some water supply problems exist in small, populated areas and farmsteads without access to the centralised water supply, which use shallow groundwaters, especially on the outskirts of populated areas.

The main loads and risks affecting the quality of ground waters are the following:

1) point source pollution caused by large enterprises, polluted areas and landfills in the vicinity of the sources of drinking water, e.g., Inčukalns sulphuric acid tar ponds where pollution is moving towards the river Gauja or the landfill "Getliņi" where pollution is moving towards the Daugava;

2) multiform diffuse pollution draining into non-confined groundwaters (shallow groundwaters) under the populated areas and agricultural lands, also from areas of inherited pollution. The pollution of shallow ground waters in the territory of Riga has been caused by the rapid industrial growth in the last century, as well as the undeveloped centralised sewerage system of the city. A major risk to the quality of ground waters is presented by the territory of Olaine town with various chemical waste landfills;

3) intrusion of marine waters in the groundwater aquifers is the most dangerous process related to changes in the balance of ground waters, occurring most rapidly in the territory of Liepāja city. Intensive water abstraction during the previous decades has contributed to this process. Indirect intrusion of marine waters has been found also in downtown Riga and in Jūrmala;

4) abandoned drilled wells, which due to change of the political regime and forms of property were left without supervision and now are also being demolished, present considerable threats of groundwater; pollution

5) artificial recharge of groundwater takes place in one GWB only, in the territory of Mazais Baltezers; however, development of this territory has had a negative effect on the water quality.

2.2 PROBLEMS CALLING FOR IMPLEMENTATION OF A SPECIFIC GOVERNMENT POLICY

2.2.1. Eutrophication of inland waters and the Gulf of Riga, especially its southern area.
2.2.2. Transboundary transport of nutrients and pollution accounting for more than 50% of water resources and 2/3 of the pollution load, as well as the risks of accidents. Unfortunately, the Fifth Baltic Sea Pollution Load Compilation (PLC-5) prepared by the HELCOM cannot precisely determine the amount of nutrients (nitrogen and phosphorus) draining into Latvia from Belarus and even Russia through the Daugava river. Therefore Latvia stands out as a disproportionately large regional contributor of eutrophication. This problem is related to the efficiency of the EU Neighbourhood policy.
2.2.3. A complete and timely fulfilment of requirements provided for in the Council Directive of 21 May 1991 concerning urban waste water treatment and Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption is hindered by insufficiency of funding related to deterioration of the national economy. Thus the volume of work may be reduced in the projects already envisaged which would decrease the planned compliance with requirements of the directive.
2.2.4 Substantial loss of water by the out-of-date water supply and sewerage infrastructure due to obsolete and low-quality distribution networks.
2.2.5 Significant increase in risks of environmental pollution of the Baltic Sea due to rise in maritime transport expanding in the vicinity of the sea coast of Latvia.

2.3 POLICY OBJECTIVE

To ensure water quality in compliance with the legislative requirements, to reduce eutrophication of inland waters and to ensure quality of water services.

2.4 POLICY RESULTS, PERFORMANCE RESULTS AND OUTPUT INDICATORS FOR ACHIEVEMENT OF THESE RESULTS

2.4.1 Policy results and their output indicators

Policy results	Output indicators	2008	2009	2010	2011	2012	2013	2014	2015
2.4.1.1 The quality and accessibility of water services has improved	1. Percentage of population receiving water supply services in compliance with the legislative requirements, % of the total population[4]	11	59	59	59	59	66	66	66
	2. Percentage of population receiving waste water management services	46	56	56	56	56	62	62	62

[4] Fulfilment of the indicator largely depends on the implementation period of the Riga's water services management project which will ensure high-quality water supply and waste water management. Numeric values of the indicators after 2013 cannot be currently specified, for it will depend on EU funds available after 2013.

	in compliance with the legislative requirements, % of the total population[2]								
2.4.1.2 Water consumption has reduced	1. Annual water consumption per capita, m^3	85	84	83	82	81	81	80	80
	2. Annual volume of the abstraction of groundwater, millions of m^3	108	107	106	105	104	104	103	103
	3. Annual volume of the abstraction of surface water, millions of m^3	104	103	102	101	100	100	99	99
2.4.1.3 Water quality not compromising human health is ensured	1. Percentage of water bodies with good and high water quality, %	38	39	40	39	50	60	72	88
	2. Quality of bathing waters – number of incompliance incidents of the water's microbiological quality during the bathing season, % of the number of measurements taken	14	14	14	14	13	13	13	12

2.4.2 Performance results and their output indicators

Performance results	Output indicators	2008	2009	2010	2011	2012	2013	2014	2015
2.4.2.1 Measures for improvement of the water quality and reducing dissatisfaction with the quality of provided services have been carried out	Number of water management projects implemented per year[5] to provide sewerage services and ensure waste water treatment and high-quality drinking water pursuant to the requirements of directives (88 Latvian agglomerations)	0	0	0	0	48	33	0	7
2.4.2.2 Public awareness on importance of water resources has	Number of public awareness and education measures carried out by national	1	1	2	2	2	2	2	2

[5] Implementation of each project lasts 4 years; therefore the first results of projects will be evaluated starting from 2012.

increased	institutions per year								

2.5 NEXT STEPS

Measures for achievement of the policy objective	Institutions involved	Implementation timeframe
1. To ensure development of management plans for the river basin districts of Daugava, Venta, Lielupe, and Gauja by setting quality objectives for each water body in the river basin district, to make them available for public consultation and to ensure development of programmes of measures to reach these objectives;	MoEn	2009–2010
2. To transpose the Marine Strategy Framework Directive into the national legislation by taking into account the joint assessment of the Baltic Sea and implementation of the BSAP and objectives defined, and to develop a national strategy for marine environment protection aimed at implementing the Marine Strategy Framework Directive in Latvia based on the national assessment of the marine environment;	MoEn	2009–2010
3. Promotion of cooperation between various institutions to prevent the risk of accidents at sea;	MoEn, MoD	2009–2015
4. To amend the National Marine Oil Spill Contingency Plan by including hazardous substances or any other harmful substances in this plan;	MoEn, MoT, MoE, MoRDLG, MoD, local governments	2009
5. To integrate requirements of the Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks into the river basin management plans, to draft flood risk maps and carry out measures for reducing flood risks;	MoEn, MoI, MoRDLG, local governments	2009–2015
6. To continue implementation of measures for reducing pollution of surface waters caused by urban waste water and hazardous substances, including improvement of waste water management in settlements with population equivalents between 10,000 and 100,000 by 31 December 2011, but in settlements with population equivalents between 1,000 and 10,000 – by 31 December 2015;	MoEn, MoA, MoRDLG, local governments	2009–2015

7. To implement measures for reducing leakage of nutrients in vulnerable zones subject to increased requirements for protection of water and soil against pollution caused by nitrates from agricultural sources, as well as to promote compliance with the terms and conditions of good agricultural practice throughout the territory of Latvia;	MoA, MoEn, MoRDLG, local governments	2009–2013
8. To encourage international cooperation within the framework of transboundary river basins;	MoEn, MoFA, MoRDLG	2009–2015
9. To reduce discharge of nitrogen, phosphorus and hazardous substances from the territory of Latvia into the Baltic Sea and Gulf of Riga;	MoEn, MoE, MoA, MoRDLG, local governments	2009–2015
10. To award the "Blue Flag" eco-label to the Latvian beaches (bathing areas) and marinas;	MoEn, MoH, local governments	2009–2015
11. To prepare general educational information on water saving possibilities;	MoEn, MoRDLG, local governments	2009–2015
12. To encourage economic operators to search for technological solutions for water saving (e.g., through treatment and reuse of the utilised water, introduction of environmentally friendly technologies with low consumption of water resources, etc.);	MoEn, MoE, MoRDLG, local governments	2009–2015
13. To implement measures for provision of high-quality drinking water and to continue improvement of the out-of-date water management infrastructure for reducing the loss of water from networks.	MoEn, MoH, MoRDLG, local governments	2009–2015

III LAND

3.1 DESCRIPTION OF THE SITUATION

3.1.1 Description of the situation regarding land resources, subterranean depths and soil protection

The land – soil and sedimentary rocks beneath it – is a non-renewable natural resource ensuring the eco-system and satisfying the needs of human life processes, including ground water resources for drinking, a basis for food production and development of infrastructure for engineering-based production, household and communications. In order to preserve the land as a sustainable resource a national land policy has to be implemented, as well as spatial planning has to be carried out at all levels, including integrated management of the sea coast.

The land is affected by natural processes – tectonic fluctuations, current geological processes, and by change in the ways of land use due to human activity. Over recent years, in Latvia as in other new Member States a part of the society is rapidly adjusting to the model of consumer society using more natural resources and increasing volumes of household waste.

Promotion of sustainable management of land resources is a matter of shared responsibility among the Ministry of Agriculture responsible for monitoring of land used in agriculture and forestry, the Ministry of Regional Development and Local Government responsible for coordination of territorial planning and the Ministry of Environment responsible for prevention of pollution, erosion and risk-related processes. Also local governments and land owners play an essential role. Currently, the EU has not adopted legally binding documents in the areas of land policy or soil protection, but the MoRDLG is working on a land policy legislation package. Latvia has developed soil and ground quality standards and is currently implementing them, also regulations on the use of sewage sludge to improve agricultural land and a nitrates programme for vulnerable zones established in the district of Riga and the plain of Zemgale are in effect.

Resources of Latvian subterranean depths consist of rocks and minerals, ground waters, hydrocarbons, geothermal energy and geological structures suitable for economic use. Latvia is rich in raw construction materials – resources of sand, quartz sand, sand-gravel mix, gravel, clay, dolomite, gypsum, as well as freshwater lime and tuff can be found. Peat used in agriculture and production, which is also exported, is of great economic significance. Latvia is also rich in spa resources – curative mud and mineral waters. In lakes, sapropel used in agriculture and the chemical industry can be found.

One of the greatest assets of Latvian subterranean depths is the large fresh water resources ensuring the drinking water supply. The available natural resources of fresh water account for 1.4 million m^3 per 24 hours. Mineral waters can be found across the whole territory of Latvia, and they are divided into three large groups depending on their chemical composition and subterranean depth: sulphuric mineral water fields with a higher concentration of hydrogen sulphide (in Ķemeri, Baldone), Middle Devonian Parnu Horizon and Late Devonian Ķemeri Horizon estuarine waters of the chloride-sodium type; Cambrian Horizon salt water of the chloride-sodium type containing over 35 grams of minerals per litre and higher concentration of bromine (up to 500 mg per litre).

The possibilities of using geothermal energy are of significant interest. Higher temperatures in Cambrian sediments have been found near Eleja and Liepāja. Total geothermal energy resources account for approximately 5.8 x 10^{18} J. Now, when up-to-date heat pumps are available on the market, the use of geothermal energy for heating of private houses in the whole territory of Latvia has been increasing.

Geological conditions in Latvia are favourable for creating underground storage facilities for natural gas, and Latvia has sufficient experience of using the Inčukalns gas storage facility with the active capacity of 2.32 billion m^3 since 1968. It is possible to create several similar

gas storage facilities, thus the total capacity could reach 40–50 billion m³. The most promising are the structures in Dobele, Ziemeļblīdene and Snēpele.
A legal framework has been developed regulating the use of subterranean depths. Latvia has established a procedure for issuance of licences for the use of subterranean depths and authorisations for extraction of widespread useful minerals, procedure for the use of geological information and procedure for extraction of minerals, including requirements on geological research, extraction projects and project approval.
The Latvian Environment, Geology and Meteorology Agency (hereinafter – the LEGMA) maintains a geological information system and issues licences for the use of subterranean depths. Local governments issue authorisations for extraction of widespread useful minerals. Each year a balance of useful mineral resources and ground water is drafted. The geological mapping in the scale of 1:200000 has been completed. Also geological supervision of the hydrocarbon research, monitoring of seismic processes, and to the extent possible also monitoring of geological processes is ensured. In order to make full use of the Latvia's geological information, cooperation with neighbouring countries is carried out to solve problems of geological nature.

3.1.2 Description of the situation regarding management of polluted sites

The polluted and potentially polluted sites have been identified, and they have been included in the register of polluted and potentially polluted sites that can be found in the LEGMA's database. Overall, 3,562 polluted and potentially polluted sites were examined and included in the register of polluted and potentially polluted sites, 242 of which were recognised as polluted. Both local governments and experts participated in creation of the register, which reflected the willingness to engage, technical capabilities and also the available funding at that particular time (2002–2004). The register provides a general insight into the country's situation, as well as information required for spatial planning. When assessing based on the spatial planning requirements, the register is rather general and does not provide accurate information for spatial development planning; therefore it is required to update the register by engaging local governments in this work.
So far a number studies, including repeated ones, have been carried out, also by involving foreign specialists and experts and attracting EU funding – to develop projects for implementation of remediation activities and to choose the best technologies. Remediation of polluted underground waters and the ground has been carried out to a limited extent in the military airfields of Rumbula and Lielvārde and the industrial zone of Mīlgrāvis. In 2005, remediation of underground waters and the ground was carried out in the base "Kaugurmuiža", in Valmiera, as a result of which pollution had been reduced to an insignificant volume and did not exceed A level according to the monitoring data of 2006–2008. The tar has been partially drained from tar ponds of Inčukalns and afterwards transported to the Brocēni cement plant for incineration. During the financial programming period of 2007–2013 detailed projects have been drafted for remediation of tar ponds in Inčukalns, Olaine liquid toxic waste landfills, the Liepāja Karosta channel and Jelgava hazardous waste landfill "Kosmoss".

3.1.3 Description of the situation regarding management of chemical substances

Management of chemical substances is of high priority both at global and EU level; however, at various different levels the Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (hereinafter – REACH) has to be implemented in the EU Member States, while in the rest of the world efforts are made to implement the legally non-binding Strategic Approach to International Chemicals Management (hereinafter – the SAICM), so that risks in chemical sector would be reduced also in the developing countries, *inter alia* allowing for possibilities of better identification and control of transboundary water

and air pollution. In order to achieve objectives set forth in the REACH Regulation close cooperation between the institutions involved in implementation of this Regulation is required at both national and EU level. In 2010, the Member States will have to present their first report to the European Commission on implementation of the Regulation, where one of the sections shall describe mechanisms for cooperation between the implementing institutions, coordination of work and exchange of information. The REACH together with the SAICM combine the potential future market sanctions against countries that are producers of chemical substances and pharmaceuticals and that have by then failed to solve the problems related to management of chemical substances, imposing these sanctions through the World Trade Organisation. Latvia successfully carries out measures for implementing the REACH, but regarding implementation of the SAICM more information is required on safe and controlled circulation of chemical substances in the neighbouring countries, for such information would allow reducing significantly the costs associated with transboundary monitoring of priority substances.

By implementing the Regulation (EC) No. 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC, Latvia has taken the option to completely withdraw from circulation the transformers and capacitors containing polychlorinated biphenyls (hereinafter – PCBs), as well as to establish an appropriate management system. The EU is planning in the near future to approve legally binding restrictions on the use of mercury, as well as regarding control of use of other heavy metals that could come into effect after 2010.

The HELCOM Baltic Sea Action Plan includes measures for improving the management of chemical substances in the whole sea catchment area of the Baltic Sea, and increasing the capacity of rapid response to spills of hazardous substances and oil products. Therefore it is important to identify appropriate coastal territories on the sea coast to ensure clean-up and transportation of pollution.

3.1.4 Description of the situation regarding management and safe storage of radioactive substances

Latvia has developed a safe system for management of ionising radiation sources, including also management and storage of radioactive waste, in compliance with the requirements of the International Atomic Energy Agency and the EU. A system for recognition of radiation experts is developed, cargos are inspected on the EU's external border, as well as the use of ionising radiation sources in medicine and other areas is monitored and controlled.

However, the main task is successful dismantling of the Salaspils nuclear reactor according to the Concept of Dismantling of the Salaspils Nuclear Reactor approved by the Cabinet. During this process, after shutdown of the reactor the most important issue was transportation of the fresh and spent nuclear fuel to Russia. The fresh nuclear fuel was transported from Latvia in 2005, but the spent one – in 2008. Following completion of these works the reactor will be dismantled, and it is planned to store the radioactive waste resulting from dismantling at the radioactive waste repository "Radons". It is also planned to establish a multi-functional cyclotron centre in the reactor's territory, thus ensuring provision of the cyclotron centre's respective services to health care institutions, educational and scientific organisations and other entities. The greatest problems are caused by the necessity to expand the near-surface radioactive waste repository "Radons", because the amalgamated municipality of Baldone is strongly against it and disagrees with the implemented environmental impact assessment.

3.1.5 Description of the situation regarding reduction in accident risks

In Riga, Ventspils, Rēzekne, Daugavpils and other towns and districts, there are dangerous sites where activities involving hazardous chemical substances and chemical products – their storage, production, use, transportation, collection, destruction or recycling – are carried out. In case of industrial accidents these sites can have a more or less serious adverse effect on the

environment and population in the territory of towns and populated areas where these sites are located. Pursuant to the Cabinet Regulations No. 626 "Regulations on Criteria for Identification of High-Risk Sites and Duties of the Owners (Holders, Managers) of Such Sites to Ensure Risk Reduction Measures" adopted on 18 September 2007, dangerous sites posing threats to the environment and human health are defined as high-risk sites.

3.1.6 Description of the situation regarding waste management

Since 1998 the number of household waste dump-sites in Latvia has decreased from 558, 77 % of which were smaller than 2 ha, to 99 sites in 2006. Due to the financial aid granted by the Cohesion Fund and European Regional Development Fund 270 dump-sites have been recultivated. It is planned that already in 2009 all dump-sites will be closed, and only one landfill complying with all EU requirements will be active in each waste management region. Already in 2008, there were household waste landfills complying with legislative requirements in household waste management regions of Zieme̦lvidzeme, Ventspils, Liepāja, Pierīga, Zemgale, Maliena, Dienvidlatgale and Austrumlatgale. Currently, a landfill is being constructed in the household waste management region of Piejūra, and implementation of the Vidusdaugava waste management project is to be commenced in 2009.

Latvia produces 1 200–1 400 tonnes of household waste annually. A half of the total waste could be separated and degraded biologically; however, waste separation has only recently begun in Latvia and is developing slowly. Also different kinds of waste decomposing over a very long period, e.g., plastic bags offered free of charge in supermarkets, end up in dump-sites. Development of the producer responsibility system in Latvia is improving, e.g., more than a half of 100 000 tonnes of packaging waste is collected and recycled in Latvia or other countries, as well as collection of waste of environmentally harmful goods is carried out, and a system for the end-of-life vehicles management is in place.

Local governments are responsible for household waste management in their administrative territories. According to the Waste Management Law, local governments organise the management of household waste, including hazardous waste produced by households, in compliance with the state and regional waste management plans within their administrative territories, issue binding regulations which regulate the management of household waste within their administrative territories, division of their administrative territories into household waste management zones, requirements for collection, transport, re-loading and storage of waste, as well as the procedures by which payments for such waste management shall be made, and organise separate waste collection within their administrative territories.

The State is responsible for organisation and coordination of hazardous waste management, and these functions are fulfilled by the State Hazardous Waste Management Agency (hereinafter – the BAPA) supervised by the Ministry of Environment. The mission of BAPA is to ensure management of national sites for hazardous waste recycling, incineration equipment, landfills and other infrastructure, as well as safe management of radioactive waste and nuclear sites.

Separate waste collection in Latvia is promoted by granting exemption from the natural resources tax regarding environmentally harmful goods and packaging. Upon obtaining the said exemption from the natural resources tax, the waste manager takes on the responsibility to recollect and recover certain amount of environmentally harmful goods placed on the market following their end of life. These systems help to promote the waste separation and to establish more and more separated waste collection points.

The waste electric and electronic equipment (hereinafter – WEEE) stream is rapidly growing not only in Latvia, but also throughout Europe, increasing by 3–5 % annually. In addition, WEEE contains many different hazardous chemical substances which can cause environmental damage.

In Latvia, policy planning regarding waste management is carried out at national, regional and local level. The National Waste Management Plan for 2006–2012 and regional waste

management plans are implemented, and almost all local governments have issued binding regulations.
The EPS does not duplicate the objectives and actions to be undertaken as set forth in the Land Policy Strategy 2008–2014, Strategy of Environmental Monitoring Programme 2009–2012, Action Programme for Vulnerable Zones subject to Special Requirements for Protection of Water and Soil against Pollution Caused by Nitrates from Agricultural Sources, National Implementation Plan on Persistent Organic Pollutants 2005–2020, Latvian Rural Development National Strategy Plan 2007–2013, and Development Concept of the Latvian Geospatial Information.

3.2 PROBLEMS CALLING FOR IMPLEMENTATION OF A SPECIFIC GOVERNMENT POLICY

3.2.1 Land resources, subterranean depths and soil protection

3.2.1.1 Although geological risks or land degradation is only of regional nature in Latvia, the increasing coastal erosion, as well as erosion caused by some rivers (e.g., several stretches of Gauja), mudslides (in Turaida, the Gauja valley, Abava valley in the stretch from Sabile to Kandava), and karst processes are not taken into account sufficiently in spatial planning.
3.2.1.2 Methods for extraction, recording, control and recultivation of useful minerals have to be improved regarding the use of subterranean depths. An inventory of useful mineral mines has not been carried out. Local governments cannot appropriately monitor the small extraction sites. Recultivation of useful mineral extraction sites is insufficient. At the moment, a part of the quarries developed during the former Soviet Union is abandoned and not recultivated.

3.2.2 Management of polluted sites

3.2.2.1 If remediation of polluted sites is not carried out, the risk of further spreading of pollution from underground waters and soil into the environment continues to exist which in its turn could affect surface water bodies and their eco-systems, the water quality in sources of water, as well as the quality of ground waters, and thus present threats to human health.
3.2.2.2 The risk is incurred by insufficient funds and a lack of initiative on remediation of polluted sites and putting them back in the economic circulation.

3.2.3 Management of chemical substances

3.2.3.1 Entrepreneurs do not have sufficient experience in carrying out necessary activities for implementation of the REACH Regulation which could affect competitiveness of the relevant Latvian companies in European and other markets. The bureaucratic framework places an additional administrative burden on businesses.
3.2.3.2 In some areas, there is still inadequate information, control and cooperation among institutions regarding circulation of chemical substances in some of its stages, as well as regarding their potential harmful effect on the environment and health.

3.2.4 Management and safe storage of radioactive substances

3.2.4.1 Due to the negative attitude of surrounding residents, reconstruction of the radioactive waste repository “Radons” is problematic and has been suspended for a long period, therefore the radioactive waste management system is not completely developed pursuant to the environmental protection requirements.
3.2.4.2 Technologies related to the use of ionising radiation have not been sufficiently developed or designed.

3.2.5 Reduction of accident risks

Not always identification and prevention of accident risks is carried out through optimum cooperation among the government institutions and business operators involved.

3.2.6 Waste management

3.2.6.1 The separated waste collection and separation system is developing very slowly, and separated waste collection is not available to the residents outside regional centres.
3.2.6.2 The use of secondary raw materials creates a problem under the current economic crisis considering the significant fall in prices and demand. Reaching of objectives of waste recycling is difficult.
3.2.6.3 Problems are caused by disposal and management of the sewage sludge produced by waste water treatment plants.
3.2.6.4 Public participation in waste management in amalgamated municipalities close to borders and far from regional centres also may be still below 50 %, thus posing threats to complete and timely achievement of objectives stipulated in the accepted regional waste management plans.

3.3 POLICY OBJECTIVE

To ensure sustainable use and protection of land resources by encouraging implementation of the principle of sustainable consumption and production.

3.4 POLICY RESULTS, PERFORMANCE RESULTS AND OUTPUT INDICATORS FOR ACHIEVEMENT OF THESE RESULTS AND LINES OF ACTION FOR THE ACHIEVEMENT OF POLICY OBJECTIVES AND RESULTS

3.4.1 Policy results and their output indicators

Policy results	Output indicators	2009	2010	2011	2012	2013	2014	2015
3.4.1.1. Rational, environmentally sound and sustainable use of land resources, subterranean depths and soil is ensured	1. Total amount of disposed household waste, thousands of tonnes per year	810	800	790	785	780	775	770
	2. Amount of produced household waste, thousands of tonnes per year	1185	1125	1100	1090	1080	1070	1060
	3. Amount of produced hazardous waste, thousands of tonnes per year	32	32	32	32	32	32	32
	4. Total amount of recycled household waste, thousands of tonnes per year	485	490	495	500	510	520	530

3.4.2 Performance results and their output indicators

Performance results	Output indicators	2009	2010	2011	2012	2013	2014	2015
3.4.2.1 Safe management and storage of radioactive substances is ensured	1. Management of radioactive substances, curium per year	7500	7500	7500	7500	7500	7500	7500
	2. Amount of disposed radioactive waste, m^3 per year	0	3.5	25	75	100	400	300

	3. Shut-down of the Salaspils Nuclear Reactor, the amount of dismantled materials, tonnes per year	0	0	50	150	200	200	150
3.4.2.2 Industrial accident risks have reduced	Number of the evaluated programmes for reduction of industrial accident risks and safety reports on industrial accident risks per year	21	21	22	23	23	23	23
3.4.2.3 Transmission of pollutants from polluted sites is limited, and remediation of the sites is carried out	Area covered by the polluted sites undergone remediation, ha per year	0	0	0	0	5	0	45
3.4.2.4 Public awareness of sustainable use of natural resources has increased	Number of public awareness and education measures carried out by national institutions per year	5	5	5	5	5	5	5

3.5 NEXT STEPS

Measures for achievement of the policy objective	Institutions involved	Implementation timeframe
1. To improve the legislative framework regarding use of land resources and subterranean depths;	MoRDLG, MoEn, MoE	2009–2011
2. To improve educational programmes and information systems for training experts in areas of land resources, subterranean depths and soil;	MoEn, MoRDLG, MoES, MoA	2009–2015
3. To ensure better disclosure of information to the public on natural resources and their usage possibilities, as well as on current geological processes;	MoEn, MoRDLG, local governments	2009–2015
4. To implement projects for remediation of polluted sites;	MoEn, MoD	2009–2015
5. To update the structure of the register of polluted and potentially polluted sites and ensure its use in the process of spatial planning;	MoEn, MoRDLG, local governments	2009–2015
6. To ensure safe management and control of chemical substances in the country by improving the cooperation among the institutions involved and coordination of work;	MoEn, MoE, MoH, MoA	2009–2015
7. To dispose the equipment containing PCBs in an environmentally friendly manner;	MoEn	2009–2010
8. To promote cooperation among businesses, government institutions and local governments towards reduction of industrial accident risks and increasing safety of the environment and general public;	MoE, MoRDLG, MoEn, MoW, MoI, local governments	2009–2015

9. To ensure achievement of objectives defined for recovery of paper, plastics, metal, glass and wood;	MoEn, MoE, MoRDLG, local governments	2009–2015
10. To ensure the operation of the hazardous waste management system;	MoEn	2009–2015
11. To complete the construction of all regional landfills for household waste;	MoEn	2009–2011
12. To develop and introduce a packaging deposit system[6];	MoEn	2010–2015
13. To develop household waste separation and separated waste collection systems in all waste management regions and ensure the availability of waste collection services;	MoEn, MoRDLG, local governments	2009–2013
14. To reduce the disposable amount of biologically degradable waste;	MoEn, MoRDLG, local governments	2009–2015
15. To promote the achievement of objectives defined for management of packaging waste, waste electric and electronic equipment, batteries and accumulators;	MoEn, MoRDLG, local governments	2009–2015
16. To assess the necessity of economic instruments, which would facilitate the management of sewage sludge;	MoEn, MoF, MoRDLG, local governments	2009–2012
17. To shut down and dismantle the Salaspils Nuclear Reactor and establish a cyclotron centre;	MoEn, MoH, MoES	2011–2015
18. To improve long-term safety of the radioactive waste repository "Radons".	MoEn	2011–2015

[6] The possibilities to introduce a deposit system will be reviewed in 2010.

IV NATURE

4.1 DESCRIPTION OF THE SITUATION

Wild plants and animals form an important part of any eco-system. Disappearance of any of the species disturbs the mutual relations among the other species. Also, the possibility of using presently unknown properties of these species for human needs in the future may be lost irreversibly. Up to now scientists have registered a total of 27,443 species (18,047 animal species, 5,396 plant species and approximately 4,000 fungi species), and it is recognised that only about 75 % of insect species have been registered, and only 60 % of single-cell organisms have been found. The list of specially protected species of Latvia includes a total of 236 animal species and 485 flowering plant, fern and fungi species. In their turn, 22 plant and animal species are included in the list of species of limited use. The list of specially protected species of Latvia contains also 180 plant and animal species of EU importance, while 57 of 94 types of protected habitats of Latvia are habitats of EU importance. Protection of the most of EU species and habitats is ensured through establishment of protected territories of EU importance *Natura 2000* (for 130 species and all habitats), thus providing for conservation of species in their natural environment (*in situ*). It has to be noted that environmental protection requirements have to be met not only in the protected territories, but also in the whole territory of the country.

Conservation of species in their natural environment (*in situ*) and conservation of habitats is carried out through establishment of specially protected nature territories and by ensuring conservation of the wildlife outside the specially protected nature territories. Micro-reserves are an efficient instrument for conservation of species and habitats outside the specially protected nature territories. Requirements for conservation of species and habitats are integrated in the legislation on the use and management of natural resources by placing restrictions on the use of particular species. The legislation envisages restrictions on the environmental protection requirements not only in the protected nature territories and micro-reserves, but also in the whole territory of the country.

The Convention on Biological Diversity emphasises the importance of three mutually related areas – conservation of species, eco-systems and the genetic diversity. Latvian traditions of nature protection mainly focus on protection of species and eco-systems; however, protection of the genetic diversity is a relatively new concept. Conservation of the genetic diversity concerns wild plant and animal species, as well as selected plant and animal species. Wide genetic diversity in populations of wild species increases their adaptability and ensures better resistance to adverse changes in the surrounding environment. Over centuries Latvian farmers have grown several species of cultivated plants and domestic animals that are well adapted to local conditions. Such genetic material could be of great value in formation of new economically important species in the future.

In special cases, besides *in situ* protection, measures for conservation and protection of species outside their natural environment (*ex situ*) are required. Frequently, *ex situ* methods are the only option for seriously threatened and endangered species to be saved. Zoological and botanical gardens involved in the *ex situ* programmes for protection of globally threatened species have a clear role in the plans for conservation and restoration of particular species, as well as in the educational and informative work. The Microbial Strain Collection of Latvia comprises pure cultures of bacteria and fungi.

So far Latvia has applied a precautionary principle to the living genetically modified organisms. In December 2008, the Ministry of Environment undertook a three-month-long survey “In Favour or Against Genetically Modified Organisms in Latvia”. The survey was carried out electronically and involved 37,440 respondents. Results obtained in the survey show that 95% of respondents are against cultivation of genetically modified organisms, 94% object to their use in feed, 96% are against the use of genetically modified organisms in food,

and 91% of the respondents think that Latvia should be a zone free from GMOs. This survey established that the population in Latvia is strongly against genetically modified food, as well as showed that people wish to live in a natural environment.

4.1.1 Knowledge base on species and habitats found in Latvia and possibilities for research and involvement of experts

Frequently, the previous information on distribution, status and conservation of species and habitats is based on expert evaluations and the information obtained from various projects. The current information is of fragmentary nature both in terms of time and space, thus there are no accurate distribution maps for species and habitats. The obtained information is not stored in a single database. The compatibility of the individual data is insufficiently ensured. Previous studies do not cover all specially protected species or habitats found in Latvia neither in specially protected nature territories (hereinafter – SPNTs), nor outside these areas. There are no objectives of favourable conservation formulated for species and habitats of EU importance. Also, implementation of the drafted Environmental Monitoring Programme has not been fully commenced up to now. It is also confirmed by the report on implementation of the Habitats Directive for 2004–2006. This report assesses conservation of species and habitats of EU importance both in the *Natura 2000* areas and outside them, and the current conservation status of habitats or species. According to the results of the report, 33% of habitats and 49% of species were given a favourable conservation status. It shows that the long-term existence of a species or habitat is not threatened and sufficient conservation and appropriate management has been ensured.

However, the conservation status cannot be assessed for 5% of habitats and 21% of species due to the lack of information. The conservation status of the remaining species and habitats are considered as being unfavourable, suggesting that a species or habitat is insufficiently protected, the required management is not ensured, or no potential harmful factors have been identified, or their long-term existence is threatened, unless urgent action is taken.

In recent years the number of active field biologists has not increased. Thus, the research does not cover all groups of living organisms, and it leads to a situation where the legislation in the area of nature protection is dominated by the ecological requirements for those groups of organisms (e.g., birds) on which there is sufficient knowledge and expertise. There is also a lack of experts who could assess the economic benefits and losses of the planned management measures, including prohibitions.

By establishing the *Natura 2000* network, the EU directives lay down additional requirements for activities which have to be complied with in the areas of *Natura 2000* and which are not related to direct management of SPNTs or granting of favourable conservation status to species and habitats. These requirements are transposed into the legislation related to the environmental impact assessment. All plans and projects which could have a negative impact on *Natura 2000* have to be appropriately assessed. While there are no conservation objectives and a favourable conservation status defined for all of the protected species and habitats, assessment of the potential impact of a plan or project is carried out by experts frequently assessing only the impact of the specific, planned activity in the particular area, but not the potential cumulative effect, nor the impact on the general status of a species or habitat in the country. This is due to insufficient information on the presence and quality of a species or habitat in the country on the whole, as well as due to the fact that the number of experts in many fields is very limited, they are overburdened and therefore not able to spend enough time on analysis of the potential impact of the planned activity. No single register of environmental experts has been established in the country; and certification of these experts has not been done. Thus there are cases when assessment of the impact on species and habitats is carried out by persons with qualifications not appropriate for this kind of work. Consequently, a high-quality analysis of the impact cannot be ensured.

4.1.2 The impact of intensification of economic activity, interrupting economic activities or diversification on conservation of species and habitats in SPNTs and outside them

Latvia has longstanding traditions of nature protection which together with the relatively underdeveloped national economy have contributed to conservation of many species and habitats that have already disappeared in the Western Europe. The system of specially protected nature territories is formed by nature reserves, national parks, nature conservancy areas, natural parks, protected landscape areas, natural monuments, dendrological plantations and avenues, as well as one biosphere reserve. There are 689 SPNTs established in Latvia, including 355 natural monuments. The total area covered by the SPNTs accounts for 16% of the national territory. In their turn, micro-reserves can be established for conservation of important species and habitats outside SPNTs.

The widespread assumption that any development and economic activities are entirely suspended in the areas of conservation is unfounded, because in the large areas – natural parks, protected landscape areas, as well as the biosphere reserve – depending on the land zoning, the conservation regime is relatively less strict and the economic activity is only slightly limited; in the areas of conservation, tourism is rapidly growing, guest houses successfully operate and offer a wide range of activities in the nature. With the increasing support from EU funds, also agriculture and forestry is intensifying in the SPNTs, as a result of which large continuous areas of dominating monocultures are formed. However, in the economically unprofitable areas, agricultural activities are suspended or traditional management regimes are changed (e.g., from maintaining permanent grass to growing rape, from pasturing to grass-cutting). This is due to the overall society's and land owners' lack of information and understanding about the connection between the types and methods of economic activity and the long-term viability of natural assets. In order to ensure favourable conditions for conservation of species and habitats in cases when there is insufficient information available on the status of species and habitats and their conservation objectives, by applying the precautionary principle and principle of best available information restrictions on economic activity are imposed frequently causing land owners and local governments to develop negative attitude towards them.

In general, this poses threats to long-term presence of habitats, as well as to the survival of plant and animal species, including also bird species, related to this habitat. Since 2003, the monitoring data on bird species show that the Farmland Bird Index of Latvia is decreasing. Nature management plans for SPNTs focusing on harmonisation of the nature protection and economic interests have been drafted only for 30% of the areas. Also implementation of the approved nature management plans is inadequate due to insufficient funding.

Although the economic activity has slowed down, it is expected that the pressure on natural resources will continue to increase. In the construction sector, the demand for local construction materials will increase. Also alternative energy sources (wind power, energy crops) are being sought. However, the reckless urbanisation causes new problems. Villages and individual dwelling houses are built on land formerly used in agriculture, frequently close to water bodies and often without connections to the centralised water supply and sewage systems. This leads to water pollution, draining of wetlands and other habitat-destructing activities or fragmentation which is one of the factors threatening the long-term presence of habitats.

4.1.3 Management and management possibilities of specially protected nature territories

The protection and management of specially protected nature territories is ensured by the Ministry of Environment and its subordinate institutions. Individual administrative bodies have been established for all nature reserves and natural parks, as well as for the North Vidzeme Biosphere Reserve. Management of the rest of the specially protected nature territories is under the responsibility of the Nature Conservation Agency, and the SES ensures

compliance with the legislation. As of 1 June 2009, as a result of reorganising the nature conservation authorities, a new institution will be responsible for management of SPNTs, namely, the Nature Conservation Agency established by merging the existing nature conservation authorities. Thus, the nature conservation policy will be implemented in a unified and coordinated manner.

The involvement of local governments and non-governmental environmental organisations play a significant role in the management of SPNTs, nevertheless, mainly within the framework of projects. Also, the land ownership structure of SPNTs has to be taken into account where private land owners possess approximately a half of the total area of the SPNTs' land. It is possible to implement also other forms of management of SPNTs (voluntary agreements, positive support mechanisms, public-private partnership); however, the use of such forms is uncommon in nature conservation. Although areas of conservation are frequently considered a factor hindering the economic development, it has to be emphasised that the economic activity in these areas and outside them does not differ substantially. It means that serious explaining of management provisions is required in order to increase the land owners' understanding about the relevant objectives and to promote an economic activity that does not pose threats to preservation of natural assets in the future. It has to be noted that public awareness activities are carried out in the form of individual campaigns. The Nature Conservation Communication Strategy, which could be integrated as a separate section in the new Programme on Biological Diversity, has not been drafted yet.

The lack of a nature-based tourism infrastructure in SPNTs, as well as uncoordinated development of the tourism infrastructure are also causal factors for insufficient management. The constant growth in the number of tourists, as well as the increasing mobility of people in the future can have a significant impact on ensuring a favourable conservation status of species and habitats. Therefore it would be necessary to draft a unified tourism development plan for all SPNTs in order to identify areas and sites for development of the tourism infrastructure. Such plan would serve as a basis for planning tourism activities when drafting nature management plans for SPNTs. Diverting flows of tourists particularly to the parts of SPNTs with larger environmental capacity additionally requires trails and plank-ways, viewing towers and improved viewpoints, indications and information signs, information centres, as well as plain, ordinary parking places and other infrastructure that would reduce the negative impact on SPNTs caused by tourists and also would prevent new environmental problems, e.g., regarding waste.

With the support provided by the EU LIFE (European Community Financial Instrument for the Environment) programme and Structural Funds, as well as the Latvian Environmental Protection Fund, tourism infrastructure (trail, plank-ways, viewing towers, information centres, information stands, etc.) has been developed in many SPNTs. Only some areas collect a certain charge for using the infrastructure. In order to maintain the developed infrastructure, it is necessary to establish cooperation (e.g., lease, management contracts, etc.) between public institutions and private entrepreneurs who could undertake management of the developed infrastructure by charging visitors for this purpose. Also, other mechanisms for attracting the funding to SPNTs have to be promoted.

Landscapes are also important within the context of biological diversity conservation, because thus the integrity of eco-systems is ensured. Up to now conservation of landscapes was overlooked in Latvia, though one of the categories of specially protected nature territories is the protected landscape areas. The commenced development of landscape policy strategy could be a step towards landscape conservation. The legislation does not set criteria for landscape assets, and it does not explain landscape elements, their role in landscape conservation and basic principles of landscape management that would be necessary in order to involve local residents in landscape conservation activities.

Most of the policy results forecasted in the National Environmental Policy Plan 2004–2008 have been achieved. *Natura 2000*, i.e., the network of conservation areas of EU importance, is developed. Nature management plans for SPNTs and plans for conservation of species are being drafted, and also introduction of the *Natura 2000* Monitoring Programme is commenced. Since 2003, the Law "On Specially Protected Nature Territories" envisages a compensation to the land owners for restrictions on economic activities in areas of conservation, but the compensation mechanism has been actually implemented only since 1 January 2006 according to the Law "On the Rights of Landowners to Compensation for Restrictions on Economic Activities in Specially Protected Nature Territories and Microreserves". The Law provides for different types of compensation – reimbursement, buying-out of land (since 1 January 2008), as well as aid payments from the EU funds and state budget. By 28 February 2009, compensations paid out in reimbursements accounted for LVL 2.6 million.

The EPS does not duplicate the objectives and actions to be undertaken set forth in the Land Policy Strategy 2008–2014, Strategy of Environmental Monitoring Programme 2009–2012, Latvian Rural Development National Strategy Plan 2007–2013, National Programme on Biological Diversity and National Programme for Combating the Giant Hogweed 2006–2012, Programme of Long-term Preservation and Sustainable Use of Genetic Resources of Plants and Animals, Forest and Fish Used in Agriculture and Food Industry 2007–2009, and Strategy for Development of the Forest Industry and Related Sectors.

4.2 PROBLEMS CALLING FOR IMPLEMENTATION OF A SPECIFIC GOVERNMENT POLICY

4.2.1 Insufficient information on distribution of species and habitats, their conservation objectives, as well as, in some cases, on ecological requirements, hinders compliance of other sectoral development plans with environmental protection requirements, and does not increase public awareness of the necessity of nature conservation measures.
4.2.2 Management measures required for conservation of species and habitats are being considered in isolation from the area's economic development, and not always measures provided for in the nature management plans for SPNTs are fully implemented.
4.2.3 Lack of a mechanism for funding innovative nature conservation measures.
4.2.4 No single register of nature conservation experts has been established; and a system for certification of these experts has not been developed.
4.2.5 The public is not sufficiently aware of natural assets.

4.3 POLICY OBJECTIVE

To ensure balance between nature conservation and economic interests.

4.4 POLICY RESULTS, PERFORMANCE RESULTS AND OUTPUT INDICATORS FOR ACHIEVEMENT OF THESE RESULTS

4.4.1 Policy results and their output indicators

Policy results	Output indicators	2008	2009	2010	2011	2012
4.4.1.1 Biological diversity is maintained	1. The Farmland Bird Index of Latvia increases or remains at the level of 2003	1	1	1.1	1.1	1.2

4.4.2 Performance results and their output indicators

Performance results	Output indicators	2008	2009	2010	2011	2012
4.4.2.1 A favourable conservation status has been granted to at least 60% of habitats and species of EU importance	1. Number of approved nature management plans per year	15	15	15	15	15
	2. Number of approved plans for conservation of species per year	4	1	1	1	1
	3. Maintenance of existing nature trails and development of new ones, km per year	120	132	132	134	134
4.4.2.2. Public awareness of importance of the natural assets has increased	1. Number of informative seminars, lectures and educational measures organised per year	945	576	518	510	510
	2. Number of expositions maintained and arranged per year	11	15	15	15	15

4.5 NEXT STEPS

Measures for achievement of the policy objective	Institutions involved	Implementation timeframe
1. To draft a new Programme on Biological Diversity;	MoEn	2009–2012
2. To ensure drafting and implementation of nature management plans;	MoEn	2009–2015
3. To improve the *Natura 2000* network according to the latest scientific information on distribution of species and habitats of EU importance in the country and for elimination of irregularities (*inter alia*, development of a marine *Natura 2000*) indicated by the European Commission, and to introduce the *Natura 2000* monitoring system;	MoEn	2009–2012
4. To set forth objectives for conservation of species and habitats of EU importance;	MoEn, MoES	2009–2015
5. To reorganise nature conservation authorities through establishment of the unified Nature Conservation Agency;	MoEn	2009
6. To ensure management of SPNTs (to promote involvement of local governments in management of SPNTs through establishment of a public-private partnership, as well as by encouraging participation of associations and foundations in management of SPNTs);	MoEn, local governments, MoRDLG, MoA	2009–2015
7. To promote attraction of funding to the management of SPNTs (particularly by supporting innovative nature conservation measures);	MoEn	2009–2012
8. To draft legislation on conservation and sustainable	MoRDLG,	2011–2013

development of landscapes;	MoC, MoEn	
9. To create a register of nature conservation experts and develop a system for certification of these experts;	MoEn	2009–2010
10. To promote applied research on impact of different types of management on achieving and maintaining a favourable conservation status of different species and habitats, and to share the gained experience, also incorporating it into the nature management plans and individual regulations for conservation and use of SPNTs;	MoEn, MoES	2009–2012
11. To increase public awareness of natural assets.	MoEn, MoRDLG	2009–2015

V CLIMATE

5.1 DESCRIPTION OF THE SITUATION

5.1.1 Description of climate change and its causes

Facts on the evident nature of climate change show: during the last century the average air temperature has increased by 0.7±0.2ºC around the world. And it continues to increase. Scientists forecast that by 2100 it could increase by 1.4–5.8°C, but in Europe – by 2–5.5ºC. Along with the increase in temperature glaciers will melt faster, the level of water in world oceans will rise more rapidly, also the number and scale of extreme and uncharacteristic natural phenomena (e.g., storms, floods, spells of great heat or coldness, long drought, etc.) will increase, thus having significant deteriorating effects on nature, the man-made environment, national economy, human health and safety. Moreover, these are only the direct effects of climate change which in their turn slow down (or promote) the development of national economy and welfare. It should be noted that also the effects of climate change on agriculture, fishing, energy sector, biological diversity (eco-systems), soil degradation, profusion or scarcity of water, human health, and consumption models should be discussed.

Scientists of the Baltic Sea Region suggest that the most profound direct effects of climate change on this region are the following: sea level rise which in its turn increases the risk of floods; warmer and shorter winters affected by the increase in global average temperature; more frequent and heavier storms with increased wind velocity, thus incurring losses in populated areas, as well as increasing the risk of sea floods and coastal erosion; changes in the distribution of rainfall, including increase of strong rainstorms and the total annual rainfall, decrease of rainfall in summers, but – increase in winters, changes in the water supply, as well as river, lake floods and general increase of the water level in rivers. In its turn, severe drought and strong winds significantly increase the forests' reaction to fire and the possibility of forest fires. Thus, the artificially restored forest plantations suffer from extreme natural conditions.

The amount of economic losses in Latvia resulting from climate change is distinctively reflected by the compensations for losses caused by agro-climatic conditions: in 2004 – LVL 221,908, but in 2005 – LVL 440,652 (one third of which were compensations for livestock fallen due to midge bites, but two thirds – for covering material damages caused by floods). In January 2005, the storm which hit not only Latvia, but the whole Northern Europe incurred heavy damages – in Latvia, the estimated total damages amounted to approximately EUR 192 million (the European Union Solidarity Fund allocated EUR 9.487 million).

However, apart from the negative effects of climate change, there are also positive effects to be certainly mentioned. For example, in some places, the agricultural sector will benefit due to longer growing seasons, but elsewhere farming will be more risky because of the scarcity of water and severe (and difficult to predict) weather conditions. Some benefits are possible also in the energy sector due to such direct effects of climate change as the increase in air temperature, growth in the average water flow caused by the increase in rainfall, etc. It would contribute to reduction in consumption of energy resources for heating (which could be even more promoted by energy efficiency measures), as well as more intensive power generation in hydroelectric plants. The positive effects are related also to effects of temperature changes on the biosphere: increase in temperature will reduce possibility of frost and significantly prolong the growing season, but due to a milder climate in the winter months, the human mortality caused by cold will decrease in the temperate zone.

The First World Climate Conference was held in February 1979 in Geneva (Switzerland) and identified climate change as a topical and global issue, and invited governments of all countries to start implementing practical measures to improve the situation. In 1988, the UN General Assembly passed its first Resolution 43/53 on climate change, and the World Meteorological Organization together with the UN Environment Programme established the

Intergovernmental Panel on Climate Change, so that it would examine the range of climate change, estimate the effects and develop potential strategies. In 1990, the Panel published its first assessment report on climate change (during the Climate Change Conference in Bali (Indonesia) in December 2007 the already the 4th report was presented).
As one of the main causes of climate change, a dramatic increase in GHG emissions over the last century has been identified. In nature, the so called *natural* greenhouse gases (carbon dioxide or CO_2, methane or CH_4, nitrous oxide or N_2O) can be found, but there are also such greenhouse gases (in addition to the above mentioned – sulphur hexafluoride or SF_6, hydrofluorocarbons or HFCs and perfluorocarbons or PFCs) that are produced as a result of human economic activities (anthropogenic) in the transport sector, industrial manufacturing, intensive agriculture, waste management, as well as by burning anthracite and oil products for energy production. Studies on climate change have proved that anthropogenic GHG emissions are the ones that increase the climate change caused by earth warming the most.
Carbon dioxide is the most important anthropogenic greenhouse gas. Globally, its atmospheric concentration has increased from 280 *ppm* prior to industrial period to 379 *ppm* in 2005 due to intensive use of fossil fuel – oil, anthracite and natural gas, and rapid deforestation. Statistical data show that during the period 1970–2004 emissions of CO_2 have increased by approximately 80% (from 1990 to 2004 – by 28%) and accounted for 77% of the total GHG emissions in 2004.

5.1.2 Description of the international climate change policy

The climate change policy comprises two essential components: mitigation of climate change and adaptation to unavoidable climate change.
In 1992, the Convention on Biological Diversity was signed together with the United Nations Framework Convention on Climate Change (UNFCCC) during the UN Conference on Environment and Development in Rio de Janeiro, Brazil, thus highlighting that a new phase of assessing human values and responsibility has started in the global political life. The objective of this Convention is stabilisation of greenhouse gas concentrations in the atmosphere at such a level that would prevent dangerous anthropogenic interference with the climate system. Moreover, such level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change and to ensure organic food production and enable the economic development to proceed in a sustainable manner. An important requirement stipulated in the Convention is that the parties or Member States have a right to, and should, promote sustainable development.
Currently, the United Nations Framework Convention on Climate Change has 192 Member States or parties. In order to prevent anthropogenic effect of greenhouse gas emissions on the climate Latvia signed the UN Framework Convention on Climate Change in 1992, and the Latvian Parliament (hereinafter – the Saeima) ratified it on 23 February 1995.
On 11 December 1997, in the city of Kyoto, Japan, the Convention was supplemented with the Kyoto Protocol (entering into effect on 16 February 2005). Fifteen EU Member States within the framework of the Community ratified the Kyoto Protocol on 31 May 2002. Latvia in its turn ratified the Kyoto Protocol on 5 July 2002. Currently, 175 countries (36 of which are industrialised countries or economies in transition) have ratified the Kyoto Protocol. The Kyoto Protocol stipulates that from 2008 to 2012 the industrialised countries shall individually or jointly ensure that their aggregate anthropogenic (deriving from human activities) emissions of greenhouse gases do not exceed their assigned amounts calculated pursuant to their quantified emission limitation and reduction commitments referred to in the Annex B. According to the EU point of view, Latvia has to reduce the total GHG emissions by 8% in comparison to 1990.
The UN Climate Change Conference held in Nairobi in 2006 finalised a five-year Work Programme on Impacts, Vulnerability and Adaptation to Climate Change. The above mentioned programme outlines climate-related risks and extreme events; adaptation planning

and practices; methods, tools and technologies for the new policy; socio-economic information and economic diversification for extraction of resources, outlets, production technologies, products and services; data and observation networks, types of monitoring and reporting to international institutions; research, and modelling and scenarios related to climate change. In order to mitigate climate change a greater focus is put on the sectors of economy causing the highest GHG emissions: energy (including transport), industry, solvent and other product use, land use (including agriculture and forestry) and waste management. Promotion of development and use of low carbon technologies plays an essential role.
Within the framework of policy on adaptation to climate change, areas of high priority are the following: human health and welfare, agriculture and forestry, energy, biological diversity, water management, marine resources and coastal territories, including tourism and recreation in these territories, regional development and planning, urban planning, construction, national security and civil protection, insurance sector.

5.1.3 Description of the EU climate change policy

The EU Ministers for Environment have agreed on the objective to limit the long-term global increase in average temperature to no more than $2^{o}C$ compared to pre-industrial levels. Achievement of this objective may require stabilisation of carbon dioxide concentrations well below the level of 550 ppm; in order to fulfil this, the global GHG emissions must peak before 2025. Therefore by 2050 greenhouse gas emissions in developed countries have to be reduced by approximately 60–80% compared to 1990 levels, while the mid-term goal is a 15 to 30% reduction in greenhouse gas emissions by 2020.
Studies show that the key to a low carbon emissions economy lies primarily in measures that can be divided into the following three groups: reducing energy consumption, increasing the share of renewable energy sources (hereinafter – the RES), and improving the energy efficiency in power generation and use. In most countries, the issue regarding the role of nuclear power in reducing GHG emissions remains open and controversial.
On 17 December 2008 the European Parliament adopted the climate and energy package defining EU climate change and energy policies up to 2020. The adopted legislation includes a directive on improving the functioning of the European Union's (EU) emissions trading scheme, decision on commitments of Member States to limit emissions of greenhouse gases not covered by the emissions trading scheme (hereinafter – the ETS) (including sectors of transport, agriculture, waste management), directive on the geological storage of carbon dioxide, as well as a directive on promotion of the use of renewable energy sources.
The main objective of the directive on promotion of the use of renewable energy sources is to ensure that by 2020 the percentage of renewable energy sources in the EU reaches 20% of the gross final energy consumption. Binding targets are established for each Member State envisaging to increase the consumption of renewable energy sources in sectors of electricity and heat production, cooling and transport, as well as to promote energy efficiency and energy saving. The Member States will have to draft action plans for use of renewable energy sources in accordance with specific requirements. In 2005, the share of renewable energy sources consumed in Latvia was 32.6%, but in 2020 it should reach 40%.
The EU emissions trading scheme is being reformed in order to significantly reduce emissions from the installations covered by ETS in the future. By 2020, reduction in emissions by 21% has to be ensured in the sector covered by the Community scheme compared to the level registered in 2005, and this reduction has been set equal for all Member States. Furthermore, starting from 2013, the principles for allocation of emission allowances will significantly change, namely, an increasing share of emission allowances will be given to installation operators by charging them – through auctions, particularly in the sector of electricity production. Pursuant to the Directive 2008/101/EC adopted in 2008, also the aviation sector covering all arriving and departing flights to/from airports in the territory of EU will be included in the ETS, starting from 2012.

The most urgent matter in the international discussions on climate change policy is imposition of obligations in respect to GHG emission reduction for the post-2013 period. This is closely related to the issue on provision of funding to support measures for mitigating climate change and adapting to it in the developing countries. Extensive use of auctions within the EU's ETS is one of the possible sources for attracting additional funding; nevertheless, the priority of Latvia is implementation of domestic measures, particularly by taking into account the forecasted high costs for achievement of objectives of the climate and energy package.

It is planned by 2020 to reduce greenhouse gas emissions by 10 % in the non-ETS sectors compared to the level of 2005. For Latvia the increase in greenhouse gas emissions cannot exceed 17% by 2020 compared to 2005, which will be a challenge, since emissions from the non-ETS sectors account for more than 2/3 of overall emissions of the country, and the largest emission growth is forecasted in the transport sector.

The directive on the geological storage of carbon dioxide sets out requirements on environmentally safe geological capture and storage of carbon dioxide in the EU territory, as well as on selection of storage sites, obtaining environmental permits, definition of responsibility for the whole period of storage, monitoring and reporting. On 29 June 2007 the European Commission published the first EU-level political declaration on the necessity to adapt to climate change – the EU Green Paper on "Adapting to climate change in Europe – options for EU action". It highlights that adaptation policies and instruments have to be selected from the existing ones, particularly by developing crisis and risk management, promoting adaptation measures at all levels (national, regional and local), integrating policies and their implementation instruments into main sectors of national economy. The European Commission had planned to publish the "White Paper: Adapting to Climate Change" on 2 April 2009. It envisages that development and introduction of the adaptation policy shall be carried out in two phases: during the first phase (2009–2012) a comprehensive EU adaptation strategy is to be developed, but during the second phase it will be implemented (after 2012). At the same time the Impacts and Adaptation Steering Group (comprising representatives from all EU Member States) will be formed, as well as the *Clearing House Mechanism* will be established for exchange of information.

5.1.4 Situation in Latvia

The GHG emission projections show that by implementing the current policy on mitigation of climate change Latvia will fulfil its emission reduction commitments defined in the Kyoto Protocol for 2008–2012. Emission projections include and envisage implementation of policies and measures stipulated in the policy documents drafted by the government of Latvia up to 2007. The average value of the total forecasted GHG emissions for the period 2008–2012 will not exceed 53% of the level reached in 1990. Emission projections show that the total GHG emissions, irrespective of emissions and their capture in the sectors of land use, land-use change and forestry, will increase by 2020.

The projections indicate that by 2010 the total GHG emissions have increased by 23% compared to 2005; increase in the total GHG emissions will continue also after 2010, although their volume will still be smaller by 37.9% (in 2015) and 32.3% (2020) compared to the base-year emission levels. The energy sector will account for the largest share (45% of the total forecasted GHG emissions in 2020), followed by the transport sector with the share of emissions amounting to 32 %. This is mainly caused by the increase in demand for electricity and construction of new power plants to reduce the capacity deficit in Latvia. The rapid growth of emissions in the transport sector will be largely related to continuous increase in the number of cars.

In 2005, emissions of CO_2 accounted for nearly 70% of the total GHG emissions, and it is forecasted that these emissions will increase; however, in 2010 they will decrease by 44.8% and in 2020 – by 24.7% compared to the base-year emission levels. Other GHG emissions will show minor changes during the projected period. Only emissions produced by using

hydrofluorocarbons (hereinafter – HFCs) and sulphur hexafluorides (SF_6) will increase compared to the base-year emission levels.

Taking into account GHG emission projections for 2008–2012, in 2006 the Cabinet of Ministers supported Latvia's participation in the international emission trading, thus selling the surplus of amount units determined by the State in the period 2008–2012. On 8 November 2007 the Saeima adopted a Law "On Participation of the Republic of Latvia in the Flexible Mechanisms of the Kyoto Protocol" laying down basic principles for participation of Latvia in the flexible mechanisms of the Kyoto Protocol, including the use of resources obtained as a result of selling emission units within the framework of the climate change financial instrument. Resources shall be used for financing projects in the sectors of agriculture, transport, energy, forestry, waste management, industry and other sectors of national economy having a significant impact on the national greenhouse gas emissions or their capture and promoting the reduction or limitation of emissions of greenhouse gases and other polluting substances (including increase of energy efficiency, promoting the use of renewable energy sources, development and use of environmental technologies, raising public awareness, adaptation to climate change), as well as projects for implementation of other measures considerably improving the environmental quality.

In Latvia, having regard to the development of national economy, human welfare and stability of eco-systems, on 5 August 2008 the Cabinet of Ministers adopted an informative report "On Adapting to Climate Change" which was prepared on the basis of the EU Green Paper on Adapting to Climate Change and White Paper on Adapting to Climate Change (the latter being drafted at that time), as well as by taking into account studies by foreign and local scientists and other facts about the increasingly important effects caused by climate change.

The EPS does not duplicate the objectives and actions to be undertaken as set forth in the Strategy of Environmental Monitoring Programme 2009–2012, Strategy for Use of Renewable Energy Sources 2006–2013, Programme for Development of Biogas Production and Use 2007–2011, Energy Development Strategy 2007–2016, Programme "Production and Use of Biofuels in Latvia 2003–2010" and Climate Change Mitigation Programme 2005–2010.

5.2 PROBLEMS CALLING FOR IMPLEMENTATION OF A SPECIFIC GOVERNMENT POLICY

The following key problems have been identified in the climate change policy:

5.2.1 Lack of long-term, regular scientific studies on the potential impact of climate change on the environment of Latvia, risks posed by climate change and the impact of measures for mitigating climate change on the national economy.

5.2.2 Economic and social adaptation measures and their implementation programme have not been developed.

5.2.3 The rate of using technologies that reduce greenhouse gas emissions (including technologies using renewable energy sources and increasing energy efficiency) is low.

5.2.4 Insufficient, inconsistent and unsustainable policy on the use of RES.

5.2.5 The public and companies do not have a strong desire to change their consumption model.

5.2.6 Lack of a climate policy aimed at households.

5.3 POLICY OBJECTIVE

To provide contribution of Latvia to prevention of global climate change by ensuring balance between environmental and economic interests.

5.4 POLICY RESULTS, PERFORMANCE RESULTS AND OUTPUT INDICATORS FOR ACHIEVEMENT OF THESE RESULTS

5.4.1 Policy results and their output indicators

Policy results	Output indicators	2007	2008	2009	2010	2011	2012	2013	2014	2015
5.4.1.1 Greenhouse gas (GHG) emissions do not exceed commitments set for Latvia	1. Total GHG (CO_2, CH_4, N_2O, SF_6, HFCs, PFCs) emissions of Gg CO_2 equivalent per year[7]	12083	12763	13441	14119	14575	15031	15487	15943	16399
	2. Volume of captured GHG, Gg CO_2 equivalent per year	31	32	32	33	33	32	32	31	31

5.4.2 Performance results and their output indicators

Performance results	Output indicators	2008	2009	2010	2011	2012	2013	2014	2015
5.4.2.1 Stronger scientific knowledge base on the aspects of mitigation of climate change and adaptation to it	Number of state-funded studies on climate change per year	2	2	2	2	2	2	2	2
5.4.2.2 Public awareness of climate change has increased	Number of public awareness and education measures carried out by national institutions per year	2	2	2	2	2	2	2	2

[7] The emission limit prescribed to Latvia pursuant to the Kyoto Protocol that cannot be exceeded is 92% of 1990 levels, i.e., 24545 Gg CO_2 equivalents per year.

5.5 NEXT STEPS

Measures for achievement of the policy objective	Institutions involved	Implementation timeframe
1. To coordinate measures in order to ensure harmonised reduction of GHG emissions and increase of CO_2 capture;	MoEn	2009–2020[8]
2. To coordinate participation of Latvia in the flexible mechanisms of the Kyoto Protocol;	MoEn, MoF	2009–2015
3. To coordinate operation of the EU emissions trading scheme;	MoEn	2009–2020
4. To draft and introduce a legislative framework for operation of the national GHG emission scheme, including GHG emission inventories and projections;	MoEn	2009–2015
5. To encourage change of the consumption model according to the sustainable development approach;	MoEn, MoE	2009–2015
6. To facilitate renovation of multi-apartment buildings according to the energy audit results;	MoEn, MoE	2009–2015
7. To encourage development and introduction of efficient and environmentally friendly technologies to increase energy efficiency and the use of renewable energy sources;	MoEn, MoE	2009–2015
8. To improve the tax system with a view to reduce the use of fossil fuels and increase use of renewable energy sources;	MoEn, MoF, MoE	2010–2012
9. To increase the share of RES in the balance of energy sources;	MoEn, MoE, MoT, MoA	2009–2020
10. To support efficient and rational use of energy;	MoEn, MoE, MoA	2009–2015
11. To promote scientific studies on mitigation of climate change and adaptation to it;	MoEn, MoES, MoE, MoT, MoA	2009–2015
12. To ensure communication for informing all groups of society about climate change and for increasing public participation, to encourage initiative at local level;	MoEn, MoE, MoA, MoRDLG, local governments, MoES	2009–2015
13. To provide the public with high-quality information on the necessity to reduce the effects of harmful climate change and about implementation of planned national measures;	MoEn	2009–2015
14. To develop the Adaptation Concept envisaging the inclusion of climate change related impact assessments and risk management in the policies of the respective sectors of national economy.	MoEn	2009–2011

[8] The deadline is the year 2020 defined here and further in this table according to the commitments established by the climate and energy package.

VI FINAL PROVISIONS

6.1 ASSESSMENT OF THE IMPACT ON THE STATE AND LOCAL GOVERNMENT BUDGETS

In order to implement measures and tasks provided for in the Environmental Policy Strategy, it is planned to use funding from the state budget and also attract EU financial resources and private capital. The EPS has been drafted taking into account the insufficiency of funding in the subsequent years due to the economic crisis, as a result of which it will be possible to implement only tasks of the highest priority. It is assumed at the same time that the financial situation in the country will have been improved by the end of the period covered.

Institutions implement measures related to drafting of legislation and policy planning documents and carry out relevant studies by using funds from the state budget assigned to them.

The funding available to Latvia for implementation of measures provided for in the thematic sections of the EPS in the framework of the Priority 3.4 "Quality Environment for Life and Economic Activity" and Priority 3.5 "Promotion of Environmental Infrastructure And Environmentally Friendly Energy" of the EU Structural Funds' Operational Programme "Infrastructure and Services" for the programming period 2007–2013 accounts for LVL 692.78 million, LVL 545.53 million of which come from EU Structural Funds. Measures for implementation of priorities and their funding are outlined in Table 6.1.

Table 6.1. Funding for implementation of measures using the EU Structural Funds, million LVL

National co-funding	Aid from Structural Funds	Total
Priority 3.4 "Quality Environment for Life and Economic Activity" (funding from the European Regional Development Fund)		
3.4.1.1 Development of water management infrastructure in populated areas where the number of residents is up to 2000		
17.79	100.84	118.64
3.4.1.2 Developing infrastructure in the areas of *Natura 2000*		
0.81	4.57	5.37
3.4.1.3 Development of infrastructure for conservation of biological diversity		
0.38	2.13	2.50
3.4.1.4 Rehabilitation of inherited contaminated sites		
14.76	34.44	49.20
3.4.1.5.1 Reduction of flood risks in towns of Jēkabpils and Pļaviņas		
1.24	7.03	8.26
3.4.1.5.2 Reconstruction of hydro technical structures for prevention and reduction of flood risks		
0.62	3.51	4.13
3.4.1.6 Development of a system of environmental monitoring and control		
1.27	7.17	8.43
Total for implementation of Priority 3.4:		
36.86	*159.69*	*196.54*
Priority 3.5 "Promotion of Environmental Infrastructure And Environmentally Friendly Energy" (funding from the Cohesion Fund)		
3.5.1.1 Development of water management infrastructure in agglomerations with population		

equivalent over 2000		
49.9	294.8	344.7
3.5.1.2.1 Remediation of non-complying dump-sites		
6.5	13.8	20.3
3.5.1.2.2 Development of regional waste management systems		
5.0	28.2	33.2
3.5.1.2.3 Development of the separated waste collection system		
49.1	49.1	98.1
Total for implementation of Priority 3.5:		
110.40	*385.84*	*496.24*
Total funding for implementation of Priorities 3.4 and 3.5:		
147.26	***545.53***	***692.78***

Next steps provided for in the EPS include also other requirements deriving from the EU legislation, for implementation of which the above mentioned funding allocated within the framework of Priorities 3.4 and 3.5 is insufficient. The indicative calculated necessary funding accounts for a total of LVL 1193 million therefore additional LVL 500 million would be required. This problem is analysed in detail in the informative report on environmental commitments and their deadlines set forth in EU treaties, regulations and directives that was reviewed at the Cabinet meeting on 16 September 2008 (paragraph 4 of the Protocol No. 66). Measures of the Operational Programme "Infrastructure and Services" outlined in Table 6.1 are aimed at implementation of measures suggested in the EPS thematic sections – "Air", "Water", "Land", "Nature" and "Climate". However, in order to financially cover prevention of all problems outlined in the EPS, additional measures which can be implemented only via funding from the state budget are required.

In nature conservation, funding of LVL 17.3 million would be required annually to achieve a favourable conservation status for specially protected species and habitats and to ensure appropriate management of SPNTs. This amount comprises also funding to be received from EU Structural Funds which is planned within the framework of the European Regional Development Fund and the European Agricultural Fund for Rural Development. Taking into account provisions of the EU LIFE+ programme, approximately LVL 980 thousand would also be available for nature conservation under the EU LIFE+ programme. Considering the funding from the state budget of 2008 for nature conservation and the funding from the Latvian Environmental Protection Fund for various projects related to the issues of nature conservation, annual funding amounting to LVL 5.2 million for implementation of measures is insufficient. A part of the lacking funding can be obtained through EU financial programmes, e.g., programme for promotion of harmonized and balanced development of the European territory (INTERREG), support to science projects.

During the fulfilment of EPS objectives significant investments will be required for implementation of radiation and nuclear safety measures which are currently suspended for the subsequent years due to the lack of funding, therefore these measures are planned to be carried out after 2011 based on assumption that the national economic situation will improve. A more detailed calculation of the required funding is shown in Table 6.2.

Table 6.2. Funding for implementation of radiation and nuclear safety measures, million LVL

Measure	**2011**	**2012**	**2013**	**2014**	**2015**
Improvement of long-term safety in the radioactive waste repository "Radons"	0.71	3.185	2.485	-	-
Dismantling of the Salaspils nuclear reactor	2.098	2.078	0.661	0.654	0.460

Establishment of a national multi-functional cyclotron centre	-	-	8.3	-	-
Costs for receiving services provided by the national multi-functional cyclotron centre	-	-	1.474	3.918	3.918

The impact of introduction of the climate and energy package on the state budget cannot be precisely determined, since an in-depth analysis of the possible measures for reduction of GHG emissions and an assessment of cost-effectiveness of these measures is required. Starting from 2012, one of the possible sources of funding could be revenues from auctions of emission allowances envisaged by the emissions trading scheme. According to the European Commission's estimates, this revenue could reach up to EUR 45 million per year in the case of Latvia. It is important to Latvia that the most of the revenue obtained through auctions would be channelled to implementation of the domestic climate change policy and measures. It is necessary to envisage funding also for organising auctions of emission allowances.

In addition, between 2009 and 2012 a significant amount of funding will be available to measures for reduction of greenhouse gas emissions as a result of participation in the international emission trading stipulated in the Kyoto Protocol. According to the Concept of Participation of Latvia in the International Emission Trading adopted by the Cabinet, the total volume of assigned amount units potentially available for selling as defined by the government for 2008–2012 is 40 million, 10 million units of which are planned to be sold in 2008/2009. Price per unit is determined by the market, and it could range from EUR 5 to 10. The Article 8 of the Law "On Participation of the Republic of Latvia in the Flexible Mechanisms of the Kyoto Protocol" outlines the use of resources obtained from international emission trading, envisages establishment of a climate change financial instrument and the use of resources for funding relevant projects in the sectors of agriculture, transport, energy, forestry, waste management, industry and other sectors of national economy that:

1) promote reduction or limitation of emissions of GHG and other polluting substances by implementing the following measures: increase in energy efficiency; increase in the use of renewable energy sources, especially biomass; development and use of environmental technologies at the same time facilitating increase in energy efficiency or in the use of renewable energy sources; development and introduction of a policy for mitigation of climate change; educational measures and scientific research shaping the public awareness of climate change; development and introduction of measures promoting adaptation to climate change;

2) significantly improve the environmental quality also reducing transboundary air pollution, water pollution and pollution dangerous to human health and increasing capability of capture and storage of carbon dioxide.

Application of the climate change financial instrument will reduce the national dependence on fossil fuels, increase the energy efficiency and promote wider use of the new technologies in several sectors of national economy, thus encouraging eco-innovation, regional development and increasing competitiveness of the national economy in general.

6.2 PLANNING NEXT STEPS

The EPS has been drafted taking into account that the deadline for implementation of the Environmental Policy Plan 2004–2008 expires in 2008 and that it is necessary to draft planning guidelines for the next programming period. The Environmental Policy Plan 2004–2008 shall be considered as implemented as soon as the Cabinet will approve the EPS.

Each thematic section of the EPS outlines specific actions to be taken, the responsible institutions and an implementation timeframe for achievement of the objectives.

In order to meet the objectives defined in the Strategy and solve the identified problems, the Operational Strategy of the Ministry of Environment 2010–2012 will be drafted establishing the priorities in achievement of objectives set in the EPS.

Coherence between all policy planning documents to be drafted or already drafted and the EPS has to be ensured by updating them, if necessary.
During implementation of the EPS, the Ministry of Environment will prepare the following policy planning documents related to the EPS:

1) Adaptation Concept to be drafted by 1 April 2010 pursuant to the provisions of the White Paper of the European Commission;
2) new Programme on Biological Diversity to be drafted by 31 December 2012;
3) new National Waste Management Plan to be drafted by 31 December 2012;
4) plans for management of river basin districts (of Daugava, Venta, Gauja and Lielupe) by the end of 2009.

6.3 REPORTING AND ASSESSMENT PROCEDURES

Reporting on implementation of the EPS shall be done in the middle and end phase of application of the Strategy. The Ministry of Environment shall by 1 December 2012 submit to the Cabinet an informative report on the implementation progress of the Strategy (*midterm report*) and the required complements to the Strategy.
By 1 December 2015 the Ministry of Environment shall prepare and submit to the Cabinet an informative report on implementation of the Strategy and draft proposals for development of environmental policy for subsequent years.

6.4 COHERENCE OF THE STRATEGY WITH DEVELOPMENT PROGRAMMES OF PLANNING REGIONS AND PRIORITIES SET IN THE STRATEGIES

Fulfilment of the objectives established in the Strategy will have positive effects also on the objectives for improvement of environmental quality established in the midterm development planning documents. Environmental issues are defined in all policy planning documents for development of planning regions; therefore lines of action set forth in the Strategy comply with solutions of problems found in regional development programmes and strategies.
Similar environmental problems have been dealt with in the policy planning documents for development of planning regions – need to improve environmental structure, particularly development of water supply and sewage systems and improvement of their quality, improvement of waste management by encouraging enhancement and development of separated waste collection systems – which correspond to the problems identified in the EPS. Therefore lines of action established in the Strategy include solutions for problems identified in regional development programmes and strategies.
The necessity to conserve biologically diverse environment has been highlighted as a general principle in the development programmes of all planning regions. Nevertheless, the most important activities outlined in development strategies are undoubtedly related to economic development. Strategic objectives like development of tourism and non-traditional agriculture, creation of new tourist attractions, diversification of rural economy are particularly related to nature conservation and SPNTs. Therefore, when implementing nature conservation measures, the main focus has to be put on inclusion of SPNT management measures in the economic circulation and to public awareness and participation measures.
According to the National Development Plan of Latvia 2007–2013, one of the pre-conditions for safe and balanced development is reasonably used and well-preserved natural environment; but one of the tasks to be carried out (Task 6) is to facilitate assessment, mitigation and monitoring of the natural risks, including climate change and industrial risks.
The Land Policy Strategy 2008–2014 (approved by the Cabinet Order No. 613 of 13 October 2008) state that the land policy has to take into account the total economic value of the land by considering climate change and the related EU and global policies, as well as they refer to the significant role of the land in maintaining balance among processes in the nature and

atmosphere by keeping balance in both the carbon circulation cycles and hydrological cycles, thus reducing threats of global warming, capturing carbon dioxide, protecting soil against erosion and preventing the effects of rainstorms and severe drought.

The Regional Policy Strategy (approved by the Cabinet Order No. 198 of 4 April 2004) outline regional policy objectives of Latvia, e.g., to ensure equal living, work and environmental conditions to people in the whole territory of Latvia in order to promote balanced development of the national territory, regions and their parts.

Identification of climate change related risks and implementation of their management is envisaged by the informative report "On Adapting to Climate Change" (approved by the Cabinet Protocol Decision No. 56 of 5 August 2008) prepared by the Ministry of Environment, and these issues will be included in the next concept on adaptation to climate change, providing for a number of corresponding amendments to the legislation. Therefore the local government level is of particular importance regarding adaptation to climate change. At this level, the most accurate information on local nature and people's living conditions, as well as on conditions unfavourable or favourable for environmental change in relation to development of the respective territory, higher risk sites, etc. is available. Thus the consequences caused or expected to be caused by climate change can be assessed in an easier and more detailed manner. It enables the inclusion of risks related to climate change and their management in spatial planning.

One of the basic principles set forth in the Spatial Planning Law (adopted by the Saeima on 22 May 2002) is the principle of sustainability which ensures "a qualitative environment, balanced economic development, rational utilisation of natural, human and material resources, development and preservation of the natural and cultural heritage for the present and next generations", this Law also envisages a task "to create pre-conditions for ensuring environmental quality and rational use of the territory, and prevention of industrial and environmental risks". The Law has identified, *inter alia*, the following tasks related to environmental risks: to evaluate the development potential of the territory of the country, planning regions, district and local governments and to determine the requirements and restrictions necessary for the use thereof; to create pre-conditions for ensuring environmental quality and rational use of the territory, and prevention of industrial and environmental risks; to preserve the natural and cultural heritage, landscape and biological diversity, as well as to improve the quality of the cultural landscape and populated areas.

Taking into account that more than one million people in Latvia live along the coast of the open Baltic Sea and the Gulf of Riga in a 5–10 km wide zone (it is the largest concentration of people in the coastal zone of the total population among the Baltic States), and the coastal territory in Latvia comprises 24 local governments (including four cities), while approximately 67% of the 496 km long coastline is vulnerable to washing off during storms, options for construction of infrastructure required for ensuring access to the beach in the protection zone of coastal dunes have to be very carefully considered.

Nevertheless, at the moment the mutual coherence of various levels of spatial planning and coordination during their development is poor. Since there is no national policy document on coastal development, the main spatial planning problem for local governments is the contradictions between the use of protection zone of the Baltic Sea and Gulf of Riga and its adjacent lands for economic purposes, including construction, and restrictions stipulated in the legislation. Currently, the Ministry of Regional Development and Local Government has proposed to define the coastal area of the Baltic Sea and the Gulf of Riga from the perspective of spatial development as a territory of particular national interests or territory of national value, and provisions for its conservation, use and sustainable development have to be included in a national policy document.

When drafting documents for development of planning regions, cities and amalgamated municipalities, objectives and actions stipulated in regional waste management plans and plans for management of river basin districts have to be taken on board.

Summary of the Environmental Policy Strategy 2009–2015

The Environmental Policy Strategy 2009–2015 (hereinafter – the EPS) is a medium-term policy planning document reflecting the current situation, defining objectives of the environmental policy, problems to be solved, basic principles and policy results, as well as lines of action for the achievement of policy objectives.

The EPS has been drafted by the Ministry of Environment. Consultations and discussions were held with industry experts during drafting of the EPS, as well as discussions on the draft EPS with participation of the general public took place on the Web portal www.politika.lv.

The policy area covered by the EPS is environmental policy.

The overall objective of the Environmental Policy Strategy is to form a basis for preservation and restoration of environmental quality, as well as for sustainable use of natural resources, while at the same time limiting the impact of hazardous environmental factors on human health.

Considering that environment- and nature-related issues cover a very broad spectrum of problems, the EPS has been divided into five thematic sections – "AIR", "WATER", "LAND", "NATURE" and "CLIMATE".

The most serious problems identified and to be solved within the framework of issues covered in the EPS are the following:

1) air quality standards are exceeded in the largest cities of Latvia, and the largest percentage of air pollution comes from transport emissions;

2) eutrophication of inland waters is increasing, especially in the southern area of the Gulf of Riga, also the impact of agriculture on water quality is observed;

3) use of recycled raw materials creates a problem under the current economic crisis considering the significant fall in prices and demand, also the achievement of waste recycling objectives is difficult;

4) planning documents of other sectors insufficiently describe various environmental factors – environmental quality and noise for planning of traffic flows, geological risks, flood risks, measures for prevention of industrial accident risks;

5) lack of public awareness about the connection between the types and methods of economic activity and the long-term viability of natural assets;

6) lack of long-term, regular scientific studies on the possible impact of climate change on the environment of Latvia, risks posed by climate change and the impact of measures for mitigating climate change on the national economy, as well as economic and social adaptation measures and their implementation programme have not been developed;

7) problems with compatibility of various databases and shortcomings in the current registers;

8) insufficient funding for enforcement of the legislative requirements.

Issues examined in the EPS cover also requirements deriving from the EU legislation, but the funding allocated for fulfilment of these requirements is insufficient.

Possible solutions:

1) to ensure public education and raise public awareness in a planned manner, as well as promote participation of the public in planning and implementation of environmental measures;

2) to encourage cooperation between state institutions and private businesses;

3) to build the capacity of environmental institutions;

4) to encourage integration and emphasising of environmental issues in the policies of other sectors;

5) to reduce energy intensity in all sectors of national economy through development and introduction of such economic policy instruments which would encourage production of goods and provision of services with a high value added, also through restructuring the overall tax burden, i.e., implementing the green tax reform.

In order to deal with the shortcomings and problems identified in the EPS, policy objectives and results, as well as actions for achieving them, have been set forth and described in detail in each of the five thematic sections of issues covered by the EPS.

In order to implement measures and tasks provided for in the Environmental Policy Strategy, it is planned to use funding from the state budget and also attract EU funds and private capital. The EPS has been drafted taking into account the insufficiency of funding in the subsequent years caused by the economic crisis, as a result of which it will be possible to implement only tasks of the highest priority. It is assumed at the same time that the financial situation in the country will have been improved by the end of the period covered. Institutions implement measures related to drafting of legislation and policy planning documents and carry out relevant studies by using funds from the state budget assigned to them.

In order to assess the progress of implementation of the Strategy, by 1 December 2012 a midterm report on the progress of application of the Strategy and the necessary complements to the Strategy will be drafted and submitted to the Cabinet; as well as by 1 December 2015 a final report on application of the Strategy will be drafted and submitted to the Cabinet, and proposals for development of environmental policy in subsequent years will be drafted.