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Sectoral and Cross-Sectoral Integration of Biodiversity in Lithuania

Contents

1. Introduction

Lithuania reported[1] on general programmes, agriculture and rural development, fisheries, transport, tourism, energy, education and information, climate change, and environmental impact assessment.

2. General Programmes

The Long-term Development Strategy of the State (LTDSS) adopted by Lithuanian Parliament on 12 November 2002 (Resolution No. IX-1187) is a strategic planning document that reflects the vision of the long-term development of the State based on the analysis of the economic, social, cultural and political situation. The LTDSS is one of the most significant planning documents, which is instrumental in making general and sectoral strategies of the State mutually consistent. The LTDSS outlines a vision of the long-term development of the State reflecting mutually consistent long-term development directions of all sectors of the national economy. It states that Factors of environmental protection will ensure a harmonious and sustainable development of Lithuania in line with the objectives of air, water and biological diversity programmes, as well as the programmes for the protection of the Baltic Sea and the Curonian Lagoon, waste management, international commitments and EU standards as well as with the economic capabilities of the country. In environmental protection long-term development trends are implementation of the principle of sustainable development, creating preconditions for a rational use, preservation and recovery of natural resources, ensuring adequate quality of the environment having regard to the EU norms and standards, preservation of properties of natural heritage, the peculiar character and biodiversity of the environment, increasing the area of land under forests and the role of forest protection.

The Long-term Economic Development Strategy of Lithuania until 2015 (approved by the Resolution No. 853 of the Government of the Republic of Lithuania on June 6, 2002) is an integral part of the Long-term Development Strategy of the State. It sets forth long-term economic policy trends that are essential for acceleration of the national economy restructuring and also enabling adaptation to changes of the internal and international situation as well as maximum increase and effective use of the national economic potential. Protection and restoration of biodiversity is mentioned in the Rural and agricultural development strategy (section on Rural development - environmental protection, fisheries and forestry). Strategy of economic factors of environmental protection foresees development of the comprehensive system of environ-mental policy measures is based on the notions of sustainable development, thorough integration of environmental considerations into decision making at all sectors of economy, internationally acknowledged “polluter pays principle”, and orientation towards pollution prevention rather than “end-of-pipe” solutions. Substantive part of this Strategy is devoted to the assessment of predictable impacts of environmental policies on the key sectors of Lithuanian economy: industry,

[1] Lithuania (2009). Fourth National Report of the Republic of Lithuania to the Convention on Biological Diversity, the Ministry of the Environment of the Republic of Lithuania, 2009, 108 pp.

energy, transport and agriculture, but it mainly concerns “grey’ issues of environment, except agricultural sector, where biodiversity is mentioned again.

The National Lisbon Strategy Implementation Programme. With a view to invigorate the European economic growth and to give a new impetus for European competitiveness enhancement, the Lisbon Strategy was developed in 2000. The first subsequent five years showed that the expected results were not attained. Therefore, in March 2005, the European Council reviewed the Lisbon Strategy and identified two priority areas: economic growth and promotion of employment. In March 2008, the European Council initiated a new three-year (2008–2010) cycle of implementation of the Lisbon Strategy. Accelerating implementation of reforms to ensure further growth and competitiveness enhancement was placed within the focus on the agenda. The Government of the Republic of Lithuania approved the National Lisbon Strategy Implementation Programme for 2008–2010 (hereinafter referred to as the Programme) by its Resolution No. 1047 adopted on 1 October 2008. The Programme identifies the goals for the national economy growth and employment promotion as well as their implementation measures. It also sets the key indicative targets and aspirations of Lithuania until 2010. One of the tasks of objective 4 (to promote sustainable use of resources and strengthen the synergy of environmental protection and growth) is to preserve the biological and landscape diversity of the country, to promote the restoration of destructive elements of nature and to ensure the rational use of landscape and biological diversity. The measures under this task include fitting out tourist paths and tracks of educational nature in national parks, developing ecological education system, afforestation of agricultural land, completion of the formation of the protected areas network (Natura 2000) and drafting planning documents of the environmental management of such territories, and Implementation of the project for the restoration and preservation of the Lithuanian Baltic coastal zone. The responsibility for implementing these measures was shared by Ministries of Environment, Agriculture and Economy (State Tourism Department), and Klaipėda County Governor.

Programme of the Government of the Republic of Lithuania for 2008-2012 was approved on February 25, 2009. The section on environment contains subsection of biodiversity and landscape protection. The actions include, among others, preparation of biodiversity strategy and action plan, ensuring cross-sectoral coordination, integration of biodiversity into sectors of Lithuanian economy, promotion of better and faster implementation of international obligations in order to stop biodiversity loss, establishment of register of protected species and habitats and its integration into strategic environmental impact assessment; support for scientific research on evaluation of biodiversity status, reasons of its decline and defining scientifically based protection measures; introducing incentive system for proper management of protected objects and territories in protected areas, stricter implementation of protection of forest biodiversity and forest felling control, and restoration of forests. However, institutions responsible for implementation of these actions are mainly Ministries of Agriculture and Environment and in some cases Ministry of Transport. Even integration of biodiversity related issues into different sectors and preparation of new Biodiversity Strategy is to be implemented only by the three above ministries.

Protection and enhancement of biodiversity and landscape is defined in the **Master Plan of the Republic of Lithuania** approved by the Resolution No. IX-1154 of Parliament of the Republic of Lithuania on October 29, 2002 through the system of valuable conservation areas (national ecological network as a part of nature Frame), developed on the basis of Ramsar sites, CORINE biotopes, IBAs, Natura 2000 network. The Master Plan recommends to integrate the requirements and measures of landscape and biodiversity protection into strategies, programmes and action plans of all sectors of economy, first of all, agriculture, forestry, fisheries, urban development, transport, mining, tourism,, industry, energy; to implement requirements and recommendations of international conventions and EU directives on landscape and biodiversity protection.

The Lithuanian National Sustainable Development Strategy, approved by the Government decision No 1160 of 11 September 2003, includes a common strategic objective for the sustainable development, namely, coordinate the interests of environmental protection, economic and social development, ensure clean and healthy environment, efficient use of natural resources, overall economic welfare of the society, strong social guarantees; and the average of the EU states achievable during the period of the strategy implementation (until 2020) according to the indicators of efficient use of economic, social and natural resources; and according to the indicators of environmental pollution not exceeding the EU standards, as well as implement international conventions according to the requirements, which limit the environmental pollution and impact on global climate. Although landscape management problems are not identified in the EU Sustainable Development Strategy, they are considered as very important priorities in this Strategy due to the importance of landscape protection and its rational management.

The Lithuanian National Sustainable Development Strategy determines 11 priorities of sustainable development:

1. moderate and sustainable development of economy branches and regional economy;

2. reduction of the social and economic disparities among the regions and inside the regions retaining their peculiarities;

3. the reduction of the impact of the main economy branches (transport, industry, energetic, agriculture, accommodation, and tourism) on the environment;

4. more effective use of natural resources and waste management;

5. reduction of danger to human health;

6. soothing the global climate change and its effects;

7. better protection of biodiversity;

8. better protection of the natural surroundings and its rational management;

9. enhancement of employment, reduction of unemployment, poverty and social exclusion;

10. enhancement of the role of education and science;

11. protection of the Lithuanian cultural peculiarities.

Issues of landscape and biodiversity are discussed in a separate chapter under Environmental quality. Short-term objectives are to evaluate the main changing trends in landscape and biodiversity, provide legal, economic and institutional preconditions for conservation and use of this diversity as well as nature and cultural values following sustainable development principles. Mid-term objectives are to establish a modern system for protection and use of landscape, biodiversity and cultural heritage in line with national interests and EU requirements. Long-term objectives are to preserve landscape and biological diversity, nature and cultural heritage values, promote restoration of damaged natural elements, ensure rational use of landscape and biological diversity. There is a wide range of tasks and measures for implementation of each objective concerning species and habitats.

However, chapters on economic sectors do not have references to biodiversity. Even the list of indicators for sustainable development contains only two general indicators related to biodiversity:

Coverage of protected areas: thousand ha and % from total area of cultivated land; and.

Forest are: thousand ha and % from total area of Lithuania, ha per capita

Successful implementation of the Sustainable Development Strategy can be ensured only if its main provisions and ideas are understood and supported by the whole society. Nevertheless, the role of the state institutions is very important.

3. Agriculture and Rural Development

Agriculture in Lithuania is one of the priority sectors playing an important economic, social and environmental role. During the Soviet period, biological diversity was most adversely affected by land drainage, which resulted in the drying out of natural meadows and wetlands, small rivers were canalised, river valleys were damaged, small plantations in fields and single farmsteads were removed. Changes of agricultural intensity in any direction cause a certain fluctuation of biodiversity structure and species numbers. For this reason, any farming activities had direct impact on the environment. Most often intensive farming had a negative impact on biodiversity; however in some cases abandonment of farming is as negative.

After restoration of independence, the agricultural activity has, however, been decreasing as the agricultural crisis speeded-up the degradation of meadows and other “open” habitats. This happened due to the decline (and in many cases – abandonment) of farming activities in many areas. After regaining independence, with decreased agriculture and increased fuel prices, use of meadows and pastures has significantly decreased. First of all, the less favoured areas, most often wet areas that were at further from farms, were abandoned, and these areas were the most valuable ones from the biodiversity point of view. In such wet areas that were mowed and grazed earlier, rare species of waders and other meadow birds protected in Lithuania and the EU were breeding. Currently, succession

processes are taking place in those abandoned areas, and the open areas are becoming overgrown with bushes and tall grasses leading to loss of variable habitats and threatening many connected species of plants and animals.

In Lithuania there are found 53 types of the listed habitats in the Habitats Directive Annex I (out of total 218). Most of them are subject to some kind of human activity and therefore there is a need to ensure the proper management and protection of these areas. The examples are hay and alluvial meadows, western taiga, marshes, swamps, etc. Protection of landscape and biodiversity is very closely related and contribute to each other. Lithuanian rural landscape with big areas of natural and semi natural open areas rich in biodiversity make up the biggest part of the territory. Most of the natural and semi natural meadows and pastures, all swamps, also surface water bodies are regarded as high nature value areas in Lithuania. Most of these areas are the Natura 2000 areas, thus preservation of these habitats will also ensure preservation of the typical agrarian landscape. According the inventory of natural meadows carried out in 2005 by Lithuanian Fund for Nature and Institute of Botany, there is about 42,1 thousand ha of such areas. Furthermore, there is about 81 thousand ha of wetlands. The establishment of Natura 2000 territories takes place in a participatory approach, thus, the private landowners are becoming more and more aware of their role in preserving these values.

However, due to economic bearings behind, this is only possible with the financial support being provided for implementation of the required site management actions. Most of the designated Natura 2000 areas are located in rural areas, and many are dependent on high nature value farming methods that maintain habitats such as hay meadows, low intensity grazing of semi-natural vegetation, extensive cereal systems, floodplain grasslands, etc. Due to the fact that High Natural value farming systems are not always profitable for the farmer because the price that the consumer pays does not include the environmental added value that the farmer provides with low intensity/inputs as compared to the conventional farming. Thus, the EAFRD funds are used to pay the farmer for these environmental ”products”.

In the view of Natura 2000 territories protection, there seems to be strong needs to encourage the extensive grazing practices in order to maintain open landscape habitats. A lot of these are threatened by overgrowth changing the natural characteristics of the habitats. Some Natural 2000 territories and High nature values areas are, however, in the areas favourable for farming where 25 farmers are eager to intensify their production. Here actions are needed to ensure that the farming is on the level compatible with environmental requirements to secure the existing natural values.

Baseline of environmental restrictions on farming and forestry activities in protected areas differs depending from the type of protected area. This baseline is set in following legal acts:

1) Law on Protected Areas (Art. 7, 9, 11, 13, 15, 17, 19, 20),

2) Special Conditions on Land and Forest Use approved by the Governmental Resolution No1640 on 29 December 1996 (chapters 29, 34-47),

3) Statutes of individual protected areas approved by the Government or Minister of Environment.

Special regulatory provisions reflecting ecological requirements if species and habitats of Community Interest are set by Governmental Resolution No 276 on 15 March 2004 (with amendments on 19 April 2006, No 380). These regulatory provisions have to be reflected when preparing statutes of new protected area, amendment of existing one or their management plan.

Depending on the type of protected area as well as on species or habitats to be protected different combinations of restrictions for ongoing farming practice from most common 5 have been set:

1) draining or any other alterations of the hydrological regime is forbidden,

2) the ploughing meadows or re-sowing them with cultural grasses is prohibited,

3) the number of livestock units per ha in grazed areas is restricted and set to be 1 or less;

4) the earliest date of mowing meadows is determined after 15 of June,

5) using of fertilizers, pesticides or liming substances is prohibited.

Integration of environmental and biodiversity issues into agricultural sector is reflected in the Rural Development Programme for the period 2004 – 2006, and the current Rural Development Programme for the period 2006 – 20013, as well as National Strategy Plan for Rural Development 2007 – 2013.

Under the **Rural Development Programme for the period 2004 – 2006** approved by the Decision of the European Commission No. C(2004)2949 on August 3rd, 2004, support is being provided for the implementation of the following measures:

Measure 1: Early Retirement

Measure 2: Less favoured areas and areas with environmental restrictions

Measure 3 Agri-environment

Measure 4: Afforestation of agricultural land

Measure 5: Support for semi-subsistence farms undergoing restructuring

Measure 6: Meeting standards

Measure 7: Technical assistance

Measure 8: Direct payments top-ups

Measure 2: Less favoured areas and areas with environmental restrictions included also Payments in Natura 2000 areas. The number of applications received exceeded the expected amount. Applications for support under this measure have been provided together with the applications for direct payments

for agricultural land and crops. Such a high activity rate was conditioned by a very intensive awareness campaign of the Ministry of Agriculture encouraging the farmers to declare their crops and agricultural land. However, amount of farmers applying environmental restrictions in Natura 2000 areas for bird protection was much below the expected 5 000 (only 370 farmers applied for this type of payments, which makes low implementation rate – only 7.4).

Measure 3 Agri-environment payments constitutes of 4 sub measures, i.e.:

1. Protection shore belts of surface water bodies in meadows and arable land and prevention of soil erosion;

2. Landscape Stewardship Scheme;

3. Organic Farming Scheme;

4. Rare Breeds Scheme.

In 2006 in total 1 335 applications have been received. More than half of the applicants, i.e. 77 pct. received for support under Organic farming scheme.

In 2004-2006 the amount of organic farms organic farming area increased - in 2006 the area of 2340 organic farms constitutes of 102 thou ha, compare with 2003 increased 4,4 times. The reason of this phenomenon was high compensatory payments. The average size of organic farm increased too 108 till 41 ha in 2006 (3,3 times compare 2003). The mainstream branch of organic farming was crop production In Lithuania there were 4,8 SG for one farm in average. Though the speed of rising of organic farming area was highest in EU, the growing of the amount of organic production wasn't so impressive because the lack of marketing measures enlarging the demand of organic products.

In 2004 – 2006 there were allocated 55.614,85 EUR mill, 3929 applications have been provided, required amount of funds in applications, thout. EUR - 41.542,59. Only 14 farmers have submitted applications to participate in Protection shore belts of surface water bodies in meadows and arable land and prevention of soil erosion. The area of protection shore belts in meadows is 0,42 ha, in arable land – 0,06 ha. 16,6 pct of all beneficiaries submitted applications participated in Landscape Stewardship Scheme and in 2006 the amount of them increased 3,5 times. This scheme implemented in 559 ha area of UAA. There were improved the conditions of 78 ha of wetlands and 481 ha of meadows. Preservation of perennial meadows reduced soil erosion, the trimming of wetlands improved rural landscape.

521 applications were submitted under Rare Breeds Scheme for preservation of 539 animals and birds.

Evaluation of the of these measures made clear, that there was a need to encourage the extensive grazing practices in order to maintain open landscape habitats in order to protect Natura 2000 territories.. A lot of these are threatened by overgrowth changing the natural characteristics of the habitats. Some Natura 2000 territories and High nature values areas (most of them though are within Natura 2000 network) are, however, in the areas favourable for farming where farmers are eager to

intensify their production. Here actions are needed to ensure that the farming is on the level compatible with environmental requirements to secure the existing natural values. Another issue concerned the implementation of the Nitrate Directive and the Water Framework Directive where agriculture is considered as one of the key diffused water pollution sources and result into insufficient water quality both in open water bodies as well as dug well which are used a lot for drinking water in rural areas.

This situation was be targeted through the framework of axis II of Rural Development Programme for the period 2007 – 2013 (approved by the Decision of the European Commission No. C(2007)5076 on October 19th, 2007) by implementing Agri-environment payments measures, the less favourable area measure and the Natura 2000 measures as well as measures for improving the landscape's and water quality.

The Objective of AXIS II - Improving the environment and the countryside is to improve environment and landscape to stop decline of biodiversity through rational use of land resources and promotion of sustainable development of agriculture and forestry. Its priorities/specific objectives are environmentally friendly farming practices; mitigation of climate change; and preservation of biodiversity and development of high nature value and traditional agrarian areas.

The first priority (Environmentally friendly farming practices) is aimed at overcoming intensification of agricultural activities within areas rich in natural and landscape values. Therefore an Organic Farming Scheme of agro-environmental measure favouring the environment and landscape is being implemented. The support under this scheme is provided for implementation of additional actions going beyond the set environmental requirements, that favour rural landscape, contribute to water quality and ensure decreased leakage of nutrients from agriculture into water bodies, encourage rising of local rare breeds for agro-biodiversity purposes, improve soil quality and conditions.

Due to the fact that soil erosion and acidity also possess serious problems both to the environment as well as farming conditions, it is foreseen to implement adequate agrienvironmental schemes eliminating these problems to the extent possible. Moreover, the limitation on fertilizing in the implementation areas of measures will also reduce water pollution with nutrients occurring as a result of intensive farming. Support within measures aimed at prevention of soil erosion goes beyond the baseline which is set by the Good agricultural and environmental conditions. Also afforestation in areas sensitive to erosion (alongside other important environmental criteria) is given priority. In addition, no doubt promotion of organic agricultural production will have a positive impact to the environment (soil, water, biodiversity, air) and will also result into higher value agricultural production, and in return higher incomes for farmers, and it is of utmost importance today, when the demand for this produce both within local and international market is increasing. The pollution with nutrients and in this way will contribute to the achievement of water protection goals set up in the Water Framework Directive.

Under the Agri-environmental measure is 6 submeasures and in addition commitments following from the previous supporting period.

The objectives of the measure are generally to secure improvements in relation to:

environmental sound agricultural practices; improving the underground water and soil; preservation and maintenance of meadows; securing breeding of local breeds; general reduction of negative impact on water bodies; production of healthy food and foodstuffs best fitted for customers requirements; improved environmental protection; conservation of biodiversity; sustainable use of natural resources; conservation of traditional countryside landscapes.

This measure is as other measures under Axis II key funding directly related to improvements on environmental conditions. The submeasures included under the measure are:

• Landscape Stewardship Scheme

• Protection shore belts of surface water bodies in meadows and arable land and prevention of soil erosion

• Rare Breeds Scheme

• Programme for improving the status of water bodies at risk

• Organic Farming Scheme

• (Commitments of Agri-environmental measures of RDP 2004-2006)

The aim of the Landscape Stewardship Scheme is to secure needed management of meadows, secure extensive farming on these areas and contribute to counteract invasion by Sosnovsky Cow Parsnip (Heracleum sosnovsky). The objective of this scheme is to maintain natural and semi-natural meadows, wetlands, preserve or, if necessary, restore extensive farming systems on meadows and in wetlands, to reduce the intensity of farming on intensively used meadows, to protect biodiversity and water bodies against pollution. The measure is important related to biodiversity conservation and implementation of EU nature protection regulation – especially the Habitats Directive. Wetlands will broadly benefit from the measure because of reduced use of nutrients, no drainage, and delayed and restricted grazing regimes. This scheme is very important for the protection of natural and semi-natural habitats that have been established over years of extensive farming on low-output meadows, as with farming practice changing, such habitats are now on a rapid decline. The scheme is also very important for the restoration of wetlands that suffer rapid deterioration of their state due to the discontinuation of extensive farming in such areas or drainage and intensive farming on adjacent territories. As agricultural landscape with insertions of natural components comprises the biggest part of the Lithuanian territory, it will help preserving the biological diversity and restoring the traditional landscape. Insertions of natural vegetation in the contemporary agriculture are very fragmentary and the areas of melliferous plants are planted relatively seldom therefore such areas are important for a multitude of species of wild insects, feeding on pollen and nectars, including butterflies, wild bees and bumblebees. The scheme will support development of richly blooming fields or zones, which will be arranged in farms in a mosaic way, which will create appropriate conditions for wild insects and bees.

This measure comprises 8 different activities:

Activity 1 - management of natural and semi-natural meadows;

Acitivity 2 - management of wetlands;

Activity 3 - management of shore protective belts of water bodies in meadows;

Activity 4 - protection of water bodies against pollution and soil erosion on the arable land;

Activity 5 - stubbly field in winter season;

Activity 6 - strips or plots of melliferous plants in the arable land;

Activity 7 - management of the holding landscape elements;

Activity 8 - management of reclamation ditches.

The aim of the Protection shore belts of surface water bodies in meadows and arable land and prevention of soil erosion measure is to secure shore belt along water bodies in meadow areas and arable land to secure reduction of leaching of nutrients into the water and reduce generally soil erosion. The belts left unattained will experience overgrowth, retention of nutrients will be reduced and the biodiversity value will be reduced. Managed belt can however reduce the impact of nutrients and pesticides on the water bodies. Soil erosion will likewise be reduced. The measure supports implementation of EU regulation like Habitats, Water framework, and Birds directives. Grazing to prevent overgrowth is obligatory under the measure.

The aim of the Rare Breeds Scheme is to secure old breeds according to listing and certification of these from extinction. It supports implementation of the Convention on Biodiversity and secure raised animal welfare. The genetic resource would be severely threatened by extinction without the measure.

Local breeds of animal are identified in Programme of FAO AnGR Global Focal Point & Baltic Genofond in cooperation with FAO SEUR. The local breeds of animals and birds in danger of extinction and the number of rare-breed animals and birds registered as of February 22, 2006 are as follows:

Žemaitukai horses (Also Big Žemaitukai) – 314;

Lithuanian Weighted horses – 472;

Lithuanian Ash-Grey – 162;

White-backed cattle – 162;

Lithuanian Black and White cattle (old genotype)– 339;

Lithuanian Rufous (old genotype) – 101;

Lithuanian White pigs (old genotype) – 1490;

Lithuanian Native (Wattle) pigs – 45;

Lithuanian Native Coarse-wooled sheep – 41;

Lithuanian Blackhead sheep (old genotype)– 1849;

Chicken geese – 355.

The information about the number of registered rare-breed animals and birds is given by State animal supervision service under Ministry of Agriculture.

National legal acts restrict use of fertilizers and pesticides in obligatory shore protective belts. But for the intensive agricultural activity increasing of use of pesticides and fertilizers is threat that pesticides and fertilizers will run into water bodies. In terms of area, the catchments areas of water bodies at risk due to the agriculture impact occupy nearly one-fourth of the country's territory. To achieve good status of these water bodies, more attention has to be paid to this particular territory. Agriculture is the source of scattered pollution, one that is much more difficult to control than the pollution coming from concentrated pollution sources. The aim of the Programme for improving the status of water bodies at risk is to increase the quality of water bodies in i.e. accordance with obligations following from the Water Framework Directive. It targets the good status of water bodies that should be attained in accordance with the directive and national Lithuanian transposition. Main problem for the waters related to agricultural practices concerns leaching of phosphor and nitrogen from fertilisers. The activity supported under the measure includes conversion of arable land into meadow areas in the basins of water bodies that are at risk not to achieve good status because of negative agricultural impact. As the implementation of measure will reduce nutrients inflow to the Baltic Sea, it will contribute to the reduction of Baltic Sea eutrophication processes that is identified as the priority Baltic Sea environment problem by HELCOM. This measure will also have impact on biodiversity.

The number of organic farms has been steadily increasing - from 9 organic farms in 1993 cultivating 148 ha to 2086 farms in 2008 all together occupying almost 121 thousand ha. Despite of recent growth, organic production remains relatively small scale and fragmented and this is hampering effective marketing. The aim of the Organic Farming Scheme is to increase and support organic farming, ensuring environmental protection and production of quality organic products. This measure provides additional payment for production with special technological restrictions in relation to fertilizers and use of pesticides, which by 2013 should be extended to 16 % of the agricultural land used. The production should be in line with technological requirements prescribed in rules for integrated farming and apiculture.

First and foremost organic farming is an important measure of agrarian environmental protection since it helps to retain and improve quality of soil, reduce water pollution and emissions to the atmosphere, secure the stability of the eco-system and biodiversity. On the other hand, this way of farming helps to cherish the old-school environment-friendly farming traditions, retain the authentic agrarian landscape.

The second priority is mitigation of climate change.

The third priority (Preservation of biodiversity and development of high nature value and traditional agrarian areas) is set in order to ensure that appropriate farming methods and forest management practices within areas rich in biodiversity are being applied. Thus, the actions under this priority are targeted at encouraging farmers and forest owners within Natura 2000 network to apply such practices which would secure the existing values. In most cases farming and forestry systems which favour natural values are not always profitable for the farmers and forest owners because the price that the consumer pays does not include the environmental added value. Thus, the EAFRD funds are used to pay the farmer for these environmental "products" which improve the status of protected fauna and flora as well the condition of natural and semi natural habitats.

On the other hand, there are areas where economic activities are not being maintained to the required level and threaten the existing values or could be likely abandoned in the future if appropriate measures are not implemented, and therefore there is a need to implement actions encouraging people living in those areas to perform appropriate economic activities, in the meantime ensuring they are compatible with environmental values. For this purpose Natura 2000 measure, as well as support for those farming in Less Favoured Areas serve.

The aim of the Support for Natura 2000 territories measure is to support management of the established Natura 2000 network in Lithuania, designated under the Habitats and Birds directives. The support concerns payments as compensation in relation to reduced production possibilities. The support can be related to both open agricultural nature types and forest habitats. On agricultural land restrictions can concern grazing pressure, use of pesticides, time of grazing or ploughing etc. For forest areas are concerns among other postponement of cutting, prevention of clear cutting or removing of weakened or dead trees.

The measure gives support to the mentioned EU regulations but also the Water Framework Directives and the Convention on Biodiversity.

Throughout all Natura 2000 network there is unified requirement stemming from Law on Environmental Impact Assessment and Art. 6.3 of Habitats Directive 92/43/EEC and preventing negative interventions in the sites: "Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives".

Within Natura 2000 network currently there are almost 54,000 ha of agricultural land where restrictions on actual farming practices are set. As regards forestry, there are almost 521,000 ha of forests in which forest managements practices are restricted in order to ensure protection of species or habitats, private forests in which restrictions influence their owners actual incomes make almost 90,000 ha.

The aim of the Support for farming in LFA measure is to secure farming in less favoured areas where compensation on income foregone and additional cost is needed to secure agricultural practice. The measure is helping to secure preservation of extensively used farming areas and thereby securing landscapes and biodiversity values. Provision of support in LFA areas is closely related to the cross compliance requirements, which require those participating in this scheme to maintain good agricultural and environmental conditions of the land under support, and therefore is expected to benefit the environment significantly.

The Ministry of Agriculture puts intensive efforts in preparing the documents for the administration of the European Union support for rural development for the period of 2007- 2013. One of the key points in the process is consultations with economic-social partners which interests in the matter often varies; thus it is prerequisite to seek the compromise which would be more or less acceptable for all parties involved and which would facilitate achievement of the set objectives.

The Ministry of Agriculture, while coordinating and preparing the Strategy and the Programme, follows the principle of partnership, i.e. consults social and economic partners and takes into account the proposals of the working groups. During the first public discussion that took place on 18 November 2005, social and economic partners as well as representatives from other institutions were asked to provide comments and proposals regarding the draft Strategy and the draft Programme. All remarks were discussed in the meetings of the management of the Ministry and of the working groups. It should be noted, that compromises, acceptable to the widest possible range of potential applicants were sought during the process of decisionmaking.

210 people participated in the first public hearing and in the second public hearing held on 12 September 2006 seventy people were present. Continuous bilateral meetings with social49 economic partners were organised in which problems and needs of particular sectors have been discussed. The Programme has been especially intensively coordinated with the Ministry of Environment of the Republic of Lithuania. As a result of the Ministry's observations new measure Forest Environmental payments was included, according to which payments in Natura 2000 programme territories will be made both for land and forest areas. An agreement has also been reached regarding afforestation payments, provision of support for Objective II as well as support for forests', environment and landscape improvement measures.

Also, in 2006 Ministry of Agriculture funded a study carried out by Lithuanian Ornithological Society on assessment of Žuvintas reserve and other bird habitats under agri-environment measure. The study comprised impact of main agricultural activities on protected bird species in agrarian landscape, effect of intensification of agriculture on abundance and distribution of birds, EU experiences in implementation of agri-environment programmes favourable for birds in recommendations regarding new agri-environment measures and management prescriptions for Natura 2000 territories in Lithuania.

In conclusion, Lithuanian of Agriculture is doing a lot for integration of Nature conservation and biodiversity issues into its policies, but it is not yet sufficient for efficient protection of rare animal and

plant species yet. The current agri-environment measures make a good basis, but in order to take maximum effect they need to have good level of uptake.

4. Fisheries

The Lithuanian fisheries is a sector related with the management, protection and restocking of fish resources, fishing, aquaculture, fish processing and marketing, first sale and buying of fishery products.

The Lithuanian fisheries sector is administrated by the Ministry of Agriculture and its authorized institution – the Fisheries Department under the Ministry, also the Ministry of Environment. According to the Law on Fisheries of the Republic of Lithuania of 22 of June 2000 (Official Gazette No 56 – 1648, 2000, No 73-2527), the state functions on the regulation of fisheries are performed by the following institutions, depending on their competence:

1) Ministry of Agriculture - the functions with regard to development of the policy of the fisheries sector, state regulation of this sector, implementation of the European Union (hereinafter – EU) Common Fishery Policy (hereinafter – CFP), also protection of fish resources and their control in the seas;

2) Ministry of the Environment - the functions with regards to development of the policy for protection and control of fish resources in the inland waters, monitoring over the compliance with the fishing regulations in the inland water deposits.

The Fisheries Department is responsible for the implementation of tasks assigned by the Ministry of Agriculture, i.e. implementation of the rational fisheries policy, integrated regional and structural policy in the fisheries sector (together with other governmental institutions), preparation of legal acts necessary for the development of the fisheries sector, etc. The Environment Protection Agency under the Ministry of Environment is responsible for the administration of river basins and their parts located on the territory of the Republic of Lithuania, seeking the attainment of water protection goals, also coordinates the process of environmental impact assessment, when planning to build embankments, hydroelectric power stations, set up ponds, clean lakes, as well as makes decisions due to the admissibility of the planed economical activity from the impact on the environment viewpoint. Regional Environmental Protection Departments of the Ministry of Environment issue permits for the integrated pollution prevention and control to the fisheries pond farms, also issue permits for commercial fishing in the inland waters and control the compliance with legal requirements on the fishing. The applied biological fisheries research is carried out by the Fisheries Research Laboratory of the Lithuanian State Pisciculture and Fisheries Research Centre, Vilnius University scientists, Institute of Ecology of Vilnius University, Klaipėda University. The Fisheries Research Laboratory of the LSPFRC regularly monitors and investigates the status of fish resources in the Baltic Sea. The Laboratory of Marine Ecology of the Institute of Ecology of Vilnius University monitors and investigates fish resources in the Curonian Lagoon, Kaunas water reservoir and in other inland waters.

Although products of the Lithuanian fisheries sector constitute for a very small share of Gross Domestic Product (less than 1%), nevertheless the fisheries sector is very important in Lithuania.

Export of fish, crustacean, molluscs and other water invertebrates and fishery products accounts for approximately 1.5% of total export and for approximately 1% of total import. Fish and fishery products account for 14.5% of export and 15.2% of import in the structure of export and import of food products.

4 main branches of the fisheries sector are developed in the country:

• Marine fishery (fishing in the high seas, in the Baltic Sea and in the coastal zone of the Baltic Sea).

• Inland waters fishery

• Aquaculture.

• Fish processing industry and marketing.

Great changes of the Baltic Sea ecosystem are going on from the middle of XX century. These changes are impacted by climate changes, eutrofication and spread of new alien species. For some species changes of ecosystem becomes more favourable for other contrarily. At present due to very intensive fishery, lack of North Sea water inflows, which is more salted, oxygen saturated, Baltic Sea water becomes inconvenient for cod populations existence. Decrease of biomass of main predators (cod population) positively affects abundance of sprat population.

Lithuania's exclusive economic zone interacts with the waters belonging to other states and the overcapacity of fishing fleet in the Baltic Sea generally has negative impact not only on cod stocks but also on macrozoobenthos communities, which are negatively affected by bottom trawling. Lithuania matched fishing capacities with cod resources partially and there is a possible reduce of cod resources and quotas respectively so the problem of matching fishing capacities with cod resources remains. Lost nets (ghost nets) become also have negative impact on the fish resources, because their even without human help catch fish.

5 fish species are most catchable in the Baltic Sea:

• Cod is the species of greatest market demand and the largest source of income to the fishers. According to ICES the Western and Eastern cod stocks biomass are at a very low level and therefore, stocks are considered to be below the safe biological limits. Due to this reason the multi-annual management plan for cod have been approved by Comunnity.

According to multi-annual management plan for cod fishing efforts and the Baltic cod quotas can be reduced by 10-15 % year by year. Thus, the level of catches of cod is unstable and there are the measures foreseen in order to reduce the fishing capacities (scrapping and reassignment of vessels) in the Baltic Sea.

• The most important population of herring for Lithuania is the Central Baltic. Herring is the most common fish species in the Baltic Sea. According to the ICES, the Central Baltic herring stock is being exploited in a sustainable manner.

• Sprat which resources the ICES classify as having full reproductive capacity.

• Flatfish which resources in the Baltic Sea are stable.

• Salmon fishing does not play an important role for Lithuanian fishing sector in recent years. Fishermen catch only about 5 – 15 % of all salmon quota assigned to Lithuania but considering that cod fishing quota assigned to Lithuania decreases year to year, it can be expected increase in utilization of salmon fishing quota. Wild salmon in the Gulf of Finland which is also taken in the Main Basin where Lithuania has its quota is poor. For the main basin, ICES advices indicates for some rivers very low condition without signs of improvement. Although quotas are not fully taken current harvest rate is high and in combination with the low at-sea survival, spawning populations are estimated to be low. ICES has advised substantial reductions in catches and effort. In any case every year, in an attempt to increase the salmon population, Lithuania, Latvia, Poland and other States additionally rear this valuable species in their national rivers and eastern section of the Baltic Sea.

The total area of the Lithuanian inland waters covers 2621 sq. km, i.e. 4% of the territory of the country. There are 2827 lakes with an area over 0.5 ha (87359 ha), 1589 ponds (24434 ha) and 733 rivers longer than 10 km (32601 ha).

The main inland water areas used for fishing in Lithuania are the Curonian Lagoon, Kaunas Water Reservoir, rivers and lakes (over 0,5 ha in size). Lower reaches of the Nemunas River are very important in comparison to other rivers. Lithuania has rather clean inland water bodies and sufficiently developed fish breeding infrastructure. Most inland waters bodies hold the status of protected areas, they are potential Natura 2000 sites; protected species of birds, amphibian and reptiles breed in them and they are the areas in which most of protectable mammals feed themselves.

Roach, bream, smelt, pikeperch and perch prevail in the commercial catches in the Curonian Lagoon. During the last several years the fish resources in the Curonian Lagoon have been exploited quite intensively. Therefore, fishing quotas in respect of tradable fish species (bream, pikeperch, and smelt), restrictions in terms of different fishing tools and seasonal fishing bans have been introduced.

Bream, roach and perch prevail in the commercial catches in the Kaunas water reservoir. Most species have been recently exploited rather intensively, in particular bream. Therefore, limitations have been introduced in the Kaunas water reservoir as to the quantity of bream to be caught, as well as to the usage of fishing gear. Presently, it is not possible to increase the fishing intensity. Seeking to reduce fishing intensity in the Kaunas water reservoir, a limitation of a total catch of 160 tons was introduced in 2005.

Commercial fishing in the rivers is focused on fishing the most valuable fish species – smelt and eel. The catches of these commercial fish are constant; however, their increase is not predicted in the future.

The fish resources in the lakes are being exploited rather irrationally. The commercial fishing is recommended to be developed mostly in the big lakes where the commercial fishing has been developing since old time.

Negative effect on the status of fish in the inland waters is done by excessively intensive fishing and non-selective fishing methods. The resources of migratory fish suffer from obstacles in spawning grounds and migration routes. Also, the protection of fish resources and fishing control is insufficiently effective.

One of the main environmental problems is the protection of biological fish diversity. Passing, semi-passing and stenobiontic fish are in particular sensitive to the changes in the natural permanent hydro systems caused by the human activity. Since due to the construction of dams in Lithuania approximately 70 per cent spawning sites of potential katadromic fish species disappeared, that was one of the reasons due to which the resources of this species dramatically decreased and some fish species had to be included in the Red Book of Lithuania because of the catastrophic situation of their resources (although 11 protected fish species are still getting in the commercial fishing gear), thus their protection requires to promote use of selective fishing gear and methods allowing to avoid by-catches of such fish species in the areas important for their protection, to stop or restrict commercial fishing in some areas and (or) in certain periods of time, and if said measures are ineffective, commercial fishing should be reassigned to other activity.

The aquaculture ponds cover an area of 10500 ha. They are capable of farming about 5500 tons of commercial fish per year. Presently, only 49% of the pond capacities are being utilized. In 2006, about 2 thousand tons of aquaculture products were farmed in the aquaculture ponds, 94% of which were carps. Organic farming has been rapidly developing in the aquaculture enterprises of the country.

Some inland water deposits and aquaculture ponds fall within the nature protection areas attributed to Natura 2000. More stringent environmental protection requirements are applicable in these areas; for example, fish feeding wild birds are protected in these territories, there are restrictions to clear the ponds out of the grass.

Areas important for the protection of birds in Natura 2000 sites have been designated in some ponds of aquaculture enterprises (Grybaulia fishing ponds, Birvėta biosphere polygon, Vasaknai biosphere polygon, Visbarai biosphere polygon). This is a good example showing how aquaculture can positively impact on the protection of birds. It is in particular important to support intensification of environmentally-friendly production in such enterprises in which bird protection is directly dependent upon the products of the cultivated fish (for example, protection of the concentrations of white-tailed eagles in the area of Grybaulia fisheries ponds). In order to avoid killing of the water birds in fishing nets, it is prohibited to construct on the sea coast fishing nets, whose porosity is 55 mm or more, from 16 November to 15 April, at such depth where the distance from the surface of the water to the upper edge of the net is less than 15 m. However, this measure does not enable to remove all the adverse consequences for the birds. Besides, the seacoast is important for the conservation of the protected fish species (amongst them those of Community importance). Too intensive fishing and/or non-selective

fishing methods may have negative consequences on the resources of salmon, sea-trout, twaite shad, European whitefish, halibut, vimba.

Therefore supporting coastal fishing should be subject to the cessation of the activity of the part of the fishing vessels for good and all and to the use of more selective fishing methods (for example, driftnets) in order to reduce the incidental by-catches of water birds and protected fish.

However, water pollution from aquaculture enterprises, installation of new aquaculture ponds whilst damming rivers and/or changing the hydrological regime, use of water bodies important for the protection of habitats for aquaculture purposes, which results in fluctuations of water levels, may have a negative effect on the types of the natural freshwater habitats and water flora and fauna habitats of Community interest protected in Natura 2000 sites. Therefore modernization projects for aquaculture enterprises likely to have a significant effect on Natura 2000 sites must be subject to appropriate assessment of its implications for the said sites, and supported will be only the projects which will have no significant negative effect on the protected species and habitats priority being given to the projects which would help protect the environment, improve its quality and preserve the nature.

The abundance of the cormorants in aquaculture enterprises may be regulated only in accordance with the procedure established in the Rules for Hunting on the territory of the Republic of Lithuania. At the same time it is necessary to support the searching and application of other, more effective, measures for the regulation of the abundance of this species.

Areas important for the protection of the birds of the European ecological network Natura 2000 and areas potentially important for the protection of the habitats host the entire Curonian Lagoon. Part of the Curonian Lagoon hosted by the Regional Park of the Nemunas Delta is the site likely to become important for the protection of the habitats (LTSIU0013) and birds (LTSLUB001). Nature habitats (1130, river mouths; 1150, lagoons), a habitat of sea lampreys and chekhon, places of gathering of migrating geese, ducks and other water birds are protected here.

Part of the Curonian Lagoon hosted by the National Park of the Curonian Lagoon is a site likely to become important for the protection of the habitats (LTNER0005) and birds (LTKLAB001). A nature habitat (1150, lagoons) and places of gathering of migrating and wintering water birds are protected here. The remaining part of the Curonian Lagoon is likely to become a site important for the protection of the habitats (LTSIU0012). A nature habitat (1150, lagoons) and the habitat of twaite shad and chekhon are protected here. Also the northern part of the Curonian Lagoon stretching from the port of Klaipėda to the line of Juodkrantė - Dreverna has been proposed by scientists as a potential site important for the protection of the gathering of migrating and wintering birds. In 2007, a designation procedure for a special protected Natura 2000 site – biosphere polygon – was started.

Plans to install fishing quays have to be subject to the exclusion of bed excavation works in the habitats of chekhon and twaite shad from 20 April to 15 July.

Possible additional fishing restrictions in the Curonian Lagoon relate to the protection of water birds from their getting into the landing nets in the places of their gatherings during their migration and wintering.

Main restrictions to the activities necessary in order to avoid adverse consequences for the protected values in Natura 2000 sites within national protected areas have been established by individual provisions, protection regulations of the protected areas and Special land and forest use conditions. Following the procedure established by the Order No D1-255 adopted by the Minister of Environment on 22 May 2006 "On the approval of the description of the procedure for the determination of the significance of the impact of plans, programmes and planned economic activity on the designated or potential Natura 2000 sites" (Official Gazette, 2006, No 61-2214), while making the conclusion regarding the potential significance of the impact caused on the area by the economic activity planned to be carried out on Natura 2000 site or adjacent to it environment or while carrying out procedures for the strategic assessment of the consequences of the plans or programmes for the environment or procedures for the assessment of the planned economic activity on the environment, the activity in such areas may be subject to additional conditions allowing to avoid adverse impact on the protected values or reducing it to an insignificant level.

The main measure to establish whether the planned economic activity is permissible and what are the conditions in which it may be carried out in the potential Natura 2000 sites, which are not hosted by the national protected areas and in which the activity is not regulated, is the determination of the significance of the impact of the plans, programmes and planned economic activity on Natura 2000 sites designated or to be designated (Order No D1-255 adopted by the Minister of the Environment on 22 May 2006), and in case of a risk of a significant effect – procedures for the strategic assessment of the impacts on the environment (Resolution No 967 adopted by the Government of the Republic of Lithuania on 18 August 2004) or procedure for the assessment of the impact on the environment (Law on the assessment of the impact of the planned economic activity on the environment).

While establishing measures removing or alleviating the impact on biological diversity in Natura 2000 sites, account is taken of the general requirements of the provisions for the areas important for the protection of the habitats or birds, adapting them to the scope and character of the activity and to the conditions and specific features of the area. Key restrictions or encouragements of the activity relating to the implementation of the objectives of the Programme of Actions necessary in order to avoid negative consequences on the environment or mitigate them to the minor level are provided for in Chapter 4 describing the environmental problems relating to the implementation of the priorities in Natura 2000 areas and Annexes 2 and 3.

Therefore, one of the most important instruments establishing measures necessary to avoid, reduce or compensate potential significant adverse effects of implementing the Programme of Actions on the environment (in particular on the biological diversity) is a system for the strategic assessment of the consequences of the plans and programmes on the environment and of the impact of the planned economic activity on the environment which, in accordance with the provisions of paragraph 3 of Article

6 of the Habitats Directive, is used for all the plans, programmes and projects of the economic activity likely to have significant adverse impact on the sites of Natura 2000.

Besides said requirements for the protection of the habitats and species, fishing in the Baltic Sea must be regulated so, as to avoid adverse impact also on the resources of other fish species (including those of Community interest) which are protected or taken care of (salmon, bulltrout, vimba, and asp). At present, the biggest adverse impact on the protected species of fish and water birds in the Curonian Lagoon is caused by an over intensive fishing and (or) nonselective fishing methods.

Reduction of intensity of the commercial fishing aiming at protecting biological diversity is also relevant in the site of Natura 2000 – Kaunas Lagoon; an over intensive fishing here may adversely affect the protection of asps and other valuable fish. Rather intensive fishing on lakes Dusia, Meteliai and Obelija may, first of all, adversely impact such globally endangered species of water birds protected in this Natura 2000 site, as ferruginous duck and concentrations of other migrating birds.

Besides, pursuant to the General provisions for the areas important for the protection of the habitats and birds (Official Gazette, 2004, No 41-1355), fishing in inland water bodies should be discouraged or significantly restricted nearly in all types of freshwater habitats of European importance, thereby encouraging local fishers to reassign to other activities outside fishing.

Commercial fishing should be also prohibited in the habitats of Aldrovanda vesiculosa, Najas flexilis, pond tortoises (Emys orbicularis); and fishing using landing nets or fish-traps not equipped with special measures intended to protect otters must be prohibited in otters' (Lutra lutra) habitats.

All these issues are taken into consideration in developing Lithuanian fisheries sector with the aid of EU funds.

During the period of 2004–2006, the Lithuanian fisheries sector was supported from the Financial Instrument for Fisheries Guidance (hereinafter – the FIFG) and national budget of the Republic of Lithuania. According to the Lithuania Single Programming Document for the 2004–2006 (hereinafter – the SPD), approved by the Resolution No 935 of Government of the Republic of Lithuania of 2 August 2004 (Official Gazette No 123-4486, 2004) and European Commission decision No C(2004)2120, more than 59 million Lt (17,09 milion EUR) of structural assistance was planned to be allocated to the Lithuanian fisheries sector (41.837 million Lt (12,12 million EUR) from the FIFG and 17.509 million Lt (5,07 million EUR) from the national budget of the Republic of Lithuania). Under the area of activity of the measure "Protection and development of aquatic resources, fisheries, fishing port facilities, fish processing, marketing and inland fishing" the support, among others, was provided for the projects in the following measures: Protection and development of aquatic resources, Aquaculture and inland Fishing.

Operational Programme of the Lithuanian Fisheries Sector for 2007-2013 is a document defining the measures to be financed from the European Fisheries Fund (hereinafter – EFF) and national budget during the period of 2007 – 2013 in order to solve essential problems of the Lithuanian fisheries sector

by promoting development of the sector and enhancing its competitiveness, ensuring economic, environmental and social sustainability, protection and restocking of the fish resources. Operational Programme is drawn up by the authorities of Lithuanian Republic and approved by the European Commission decision.

The Operational Programme has been prepared following the provisions of Council Regulation (EC) No 1198/2006 of 27 July 2006 on the European Fisheries Fund, Commission Regulation (EC) No 498/2007 laying down detailed rules for the implementation of Council Regulation (EC) No 1198/2006 on the European Fisheries Fund and the National Strategic Plan for the Lithuanian Fisheries Sector for 2007-2013 adopted by the Resolution No 654 of Government of the Republic of Lithuania of 19 June 2007 (Official Gazette No 76-3014, 2007) (hereinafter – National Strategic Plan). Operational Programme covers the entire territory of Republic of Lithuania, with the exception for the fourth priority axis 4 "Sustainable development of the fisheries areas" which will be implemented in the areas defined in the description of the priority axis.

The following priority directions and objectives have been set out in the Operational Programme:

Priority axis 1 "Measures for the adaptation of the fishing fleet"

Priority axis 2 "Aquaculture, inland fishing, processing and marketing of fishery and aquaculture products"

Priority axis 3 "Measures of common interest"

Priority axis 4 "Sustainable development of the fisheries areas"

Priority axis 5 "Technical assistance".

Measures under Priority axis 1 "Measures for the adaptation of the fishing fleet" contain, among others, :

• Permanent cessation of fishing activities of fishing vessels, that will help to match the fishing capacities with the existing fish resources; and

• Temporary cessation of fishing activities. Frequently, seeking to protect and ensure the restocking of fish resources, to protect the public health or in the event of a natural disaster, closures of fisheries decided by Member State or other exceptional occurrence which is not the result of resources conservation measure, the fishing activity may be ceased temporarily. In such cases, seeking to mitigate the negative social and economic consequences of temporary cessation of fishing activity, fishing enterprises will be reimbursed for their losses

According to the priority axis 2 "Aquaculture, inland fishing, processing and marketing of fishery and aquaculture products", three following measures will be implemented:

• Aquaculture.

• Inland fishing.

• Fish processing and marketing.

Aquaculture ponds were constructed 30 - 40 or more years ago. Obsolete and inefficient technologies are used in them. Therefore, attempts will be made to modernize the aquaculture farms, to introduce progressive technologies, by using support from the EFF. Besides, efforts will be put to apply the new aquaculture production methods helping to protect and improve the environment.

The main part of the support designated for the measure „Inland fisheries“ is expected to target the establishment and modernisation of inland fishing infrastructure, in addition to the compensation for fishermen in case of temporary cessation in a case when the measures for the recovery of species occurring in inland waters are provided for in a Community legal act. At current moment compensations are possible only when the national eel management plan has been adopted according Council Regulation No 1100/2007 establishing measures for the recovery of the stock of European eel.

Attempts will be made to reduce harm done by fish feeding wild birds, especially recently increasing population of cormorants, to fish resources.

Specific submeasures concerning biodiversity protection are:

• Aqua-environmental measures under the measure of Aquaculture. These are compensations for the use of aquaculture production methods helping to protect and improve the environment and to conserve nature. The beneficiaries must commit themselves for a minimum of five years to aqua – environmental requirements which go beyond the mere application of normal good aquaculture practise. This activity covers measures to promote organic aquaculture, sustainable aquaculture compatible with specific environmental constrains resulting from the designation of NATURA 2000 areas, participation in the Community’s eco - management and audit scheme, forms of aquaculture comprising protection and enhancement of the environment, natural resources, genetic diversity and management of the landscape, as it is indicated in Article 30 of Regulation (EC) No 1198/2006. Support seeking to promote sustainable aquaculture compatible with specific environmental constrains resulting from the designation of NATURA 2000 areas should be restricted to maximum of two years subsequent to the date of the decision establishing the NATURA 2000 areas and only for aquaculture units existing prior to that decision. For the promotion of aquaculture forms comprising protection and enhancement of the environment, natural resources, genetic diversity and management of the landscape and traditional features of aquaculture zones, the environmental benefits of such commitments should be demonstrated by prior assessment conducted by designated competent bodies.

• Temporary cessation of fishing activities under the measure of Inland fishing. support for the temporary cessation in the inland waters is possible only in cases when measures for the recovery of species occurring in the inland waters are provided for in a Community legal act. In the case of temporary cessation all fishing activities have to be stopped. In regard to the compensations for the temporary cessation related to the measures for the recovery of species occurring in inland waters are

provided for in a Community legal act. Currently compensations are possible only when the national eel management plan has been adopted according to the Council Regulation No 1100/2007 establishing measures for the recovery of the stock of European eel.

According to the priority axis 3, four measures will be implemented:

• Fishing ports, landing sites and shelters

• Collective actions.

• Measures intended to protect and develop aquatic fauna and flora.

• Pilot projects.

Seeking to restock the resources of salmon and other valuable fish species in the Lithuanian inland waters, investments into the rehabilitation of inland waters, including spawning grounds and migration routes for these fish species will be supported.

Presently there is no complex system of applied scientific research that would cover all parts of Lithuanian fisheries structure. In order to enhance successful development of the fisheries sector, viability of the economic subjects and ensure competitiveness, as well as to promote progress in the protection and rational exploitation of fish resources, applied scientific research must be directly promoted, as well as cooperation between scientists and operators of the fisheries sector must be induced.

Support according to the Measures intended to protect and develop aquatic fauna and flora is measure will be provided to investments into the contraction or installation of static or movable facilities intended to protect and develop aquatic resources, rehabilitation of inland waters, including the building and rehabilitation of spawning grounds and migration routes. Support will be provided for direct restocking if it is explicitly foreseen as a conservation measure by a Community legal act. In regard to the restocking of eel resources, the support will be granted only when the national eel management plan will be adopted. Priority for granting support according to this measure shall be given to projects which will be implemented in the Nemunas lower reaches and Curonian Lagoon, and projects related to protected in EU member states and Lithuania and vanishing fish and lamprey species which are subject of commercial fishing.

Priority axis 2 „ Aquaculture, inland fishing, processing and marketing of fishery and aquaculture products“ the goal to modernize aquaculture farms will be matched with the opportunities to strengthen the protection of the environment and biological diversity.

Therefore implementation of this goal, taking account of environmental requirements mostly laid down by the EU Water Framework Directive 2000/60/EC (WFD), Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora and Council Directive 79/409/EEC of 2 April

1979 on the conservation of wild birds will have a direct favourable impact on the natural environment thus the implementation of the Operational Programme is necessary.

Objective of priority axis 3 „Measures of collective interest “to create favourable conditions for the natural reproduction of fish resources, migration and spawning will have a positive impact on the natural environment.

Reassignment of fishing vessels to other activities outside fishing should be aided first of all. In the process of upgrading the vessels and fishing gear, support priorities should be granted to the implementation of more selective fishing methods in order to reduce incidental by-catches of fish and water birds; preservation and improvement of the quality of the environment.

Supporting of the small scale fisheries and tourism infrastructure, of the services useful for small fisheries communities, of the protection of the environment of coastal fishing areas in order to maintain their attractiveness, of the renewal and development of hamlets and settlements involved in fisheries activities and of the protection and strengthening of the heritage of nature and architecture will have a direct positive impact on the landscape and biological diversity of the coastal fishing areas.

Strategic environmental impact assessment was carried out for the operational Programme.

There were only few tangible recommendations given by the SEA experts. All of those recommendations were taken into account after consultations and the Operational Programme was amended accordingly.

According to the 3rd measure of the priority axis 3 “Measures intended to protect and develop aquatic fauna and flora“ it is decided to set priority on separate protected fish species in order to create appropriate conditions for natural reproduction of fish resources, migration and spawning. Providing assistance according to the 2nd measure of the priority axis 2 „Aquaculture“ the following enterprises of aquaculture will be regarded as supplementary priority, in which all or part of ponds are included in the important territories Natura 2000 for the protection of birds. In order to reduce the catch of undesirable fish and birds, as well as create suitable conditions for the protection and improvement of environmental quality, according to the 3rd measure of the priority axis 1 „Modernisation of fish vessels“ and the 2nd measure of the priority axis 2 „Fishing in inland waters“ it is planned to provide assistance to the projects, related to the modernisation of vessels and fishing gear, when it is aimed to reach larger selectivity for the application of fishing methods, and reduce the catch of undesirable protected fish.

The National Strategic Plan of the Lithuanian Fisheries Sector for 2007–2013 was approved by Lithuanian Government on 19 June 2007. Its general objective is the development of the fisheries sector and increase of its competitiveness, ensuring economical, environmental and social sustainability, protection and restoration of fish resources. It targets four main branches of the Lithuanian fisheries sector: marine fishery (in the high seas, in the Baltic Sea and in the coastal zone of the Baltic Sea), inland fishery, Aquaculture and fish processing industry.

For the purpose of ensuring the development of the Lithuanian fisheries sector, the National Strategic Plan highlight the necessity to allocate the increased attention to a rational exploitation of fish resources, improvement of the environment quality, improvement of conditions for the development of micro and small enterprises, promotion of lifelong learning.

Seeking to match the existing fishing capacities with the available fish resources, some inefficient fishing enterprises will be encouraged to withdraw from the fishing business.

In general, the Strategic Plan has similar objectives and measure to the ones of the Operational Programme.

Tendencies of survival of environmentally valuable areas and animal species, as well as the prospects of the sustainable development of the fisheries depend upon the timely and sound implementation of the objectives of these strategic documents which had been set out. Failure to implement them would result in the worsening of the condition of the environment in the inland waters. If these objectives are not implemented, there would remain: recatching of fish resources alongside with persistence of and environmental problems; outdated vessels polluting the environment; tendencies causing threat to the biological diversity due to the exploitation of conventional fishing methods not always considering the by-catch of the rare and protected animal (fish and birds) species, etc.

3.4 . Forestry

Forests represent one of the major Lithuanian natural resources serving for the welfare of the state and its inhabitants, preserving the stability of the landscape and environment quality.

Despite the forest ownership form, forest, primarily, is the national property that shall be preserved for the future generations at the same meeting the ecological, economic and social needs of the society. Being a source of supply with timber and other forest products, forest is the essential factor of the ecological balance providing living places for numerous animal and plant species, stopping the soil erosion, absorbing the carbon dioxide and purifying the air, protecting the ground and the surface waters, providing opportunities for recreation of the urban and rural people. Forest plays an important role in biodiversity preservation as well tourism development.

The total forestland area accounts for 30,2 pct. (2005) of the total country's area. The total timber volume accumulated in the forests of the country reaches 388 mill. m^3. Average forest area per capita is 0,6 ha. The area of mature stands as well as the area of growing stock volume is increasing. These indicators grow due to enlarging area of forests and decrease of the population. As regards forest age, middle-aged forest dominate (42,5 pct) followed by young stands (24,5 pct), mature (19 pct) and premature stands (14 pct). Coniferous stands make 58,9 pct., followed by soft- broadleaves, which make 36,3 pct. and hard-broadleaves comprising 4,8 pct.

Substantial forest areas are designated for forest ecosystems, soil and water protection, recreation and for other ecological and social functions. The forests of strict reserves, special purpose and protective forests make more then 29 pct. of the total forestland area of the country.

The Natura 2000 network is the principal mechanism for preserving biodiversity in Lithuania, as part of the European Community. Economic activities in Natura 2000 areas are being regulated differently from site to site. Different composition of habitats and species of Community interest in Natura 2000 areas requires site-specific restrictions. This is implemented through a selection of the type of protected area to be established there and which fits best in a particular situation (e.g. nature reserve, biosphere polygon, or different zones within the state parks, etc.),. Lithuanian Law on Protected Areas envisages rather wide range of types of protected areas in the country. This Law does not restrict the choice of the type of a protected area when establishing Natura 2000 area.

In case of nature reserves, state parks (and their zones) and buffer zones of strict nature reserves forestry activities are regulated by the Law on Forests. This Law envisages the attribution of forests area to a particular forest group (I, II, II or IV) taking into account its importance for the protective purposes. Detailed rules on the assignment of forests to forest groups are laid down in the Governmental Resolution No 1171 on 26 September 2001.

Detailed rules for various felling types according different forest groups are laid down by series of orders of the Minister of Environment (No 669, 670 on 19 December 2003, No D1- 406 on 1 September 2006, No D1-204 on 11 April 2007, etc). Individual statutes approved by the Minister of Environment additionally regulate forestry activities in biosphere polygons.

Baseline of environmental restrictions on forestry activities in protected areas differs depending from the type of protected area. This baseline is set in following legal acts:

1) Law on Protected Areas (Art. 7, 9, 11, 13, 15, 17, 19, 20),

2) Law on Forests (Art. 3),

3) Statutes of individual protected areas approved by the Government or Minister of Environment.

Depending on the type of protected area as well as on species and habitats to be protected different combinations of restrictions for ongoing forestry practice from most common 4 have been set:

1) final forest cutting operations shall be forbidden or postponed;

2) final forest cutting operations shall be carried out in non-clear cutting way;

3) additional number of living trees shall be preserved and left in clear cutting areas;

4) sanitary felling is restricted, e.g. drying trees or dead wood shall be preserved.

Total area of Natura 2000 network in Lithuania constitutes 783000 Ha. In this network forests cover 491000 ha, or 25 % of the total forest area in the country. The usual forestry practices are restricted in approximately 91500 ha of forests belonging to in Natura 2000 network. In other forest area, which forms Natura 2000 network, usual forestry practices have not been affected by protection regime (legal acts) of particular protected areas, until it is not necessary for the protection of species or habitats of Community interest. Since about 53,5 pct of the Natural 2000 sites have been designated within the forests thus it is of utmost importance to ensure that proper and sustainable forest management practices are being implemented both in private and state forests. This applies both to the silvicultural as well as forest harvesting methods.

Currently 32,8 pct of total forest land area is private forests, 49,3 pct – state forests and 17,9 pct are state forests reserved for restitution. Total number of private forest holdings in Lithuania is about 150 thousand, average area of private forest holding – 4,6 ha and forest holdings up to 5 ha make 50 pct. of the number of all private forest holdings. Such small-scale forestry is a result of restitution process, which is still ongoing. It is expected that private forests will make 40 – 45 pct of the total forest areas after completion of the reform. The state forests are managed by 42 state forest enterprises and national parks. State forests of national parks were handed over to the responsibility of State Forest Enterprises from April of 2004.

Only about 15 pct of forest owners have passed special training courses aiming at increasing their abilities and knowledge to perform sustainable forest management, about 2 per cent of forest owners are professional foresters. Of course, some private forests are being managed by professional forest owners' cooperatives or private companies engaged in forest management or state forest enterprises based on the contractual agreements. However, the biggest part of the forest owners in fact does lack forest management knowledge and experience. In addition, there is a need to promote such forest management activities in private forests that would increase the ecological and recreational value of private forests as in most cases the new forest owners focus their activities only aiming at economic benefits, i.e. generating income in the short run. One of the ways to increase the forest economic value in the long run is to promote and encourage the pre commercial thinning in the young stands, which as a result turn into higher economic value in the future. Today, due to the fact that this type of activity is costly and will only pay back in some 50 years, the forest owners are unwilling to implement it. There is a need yearly to perform commercial thinning in the areas of about 5 – 6 thous. of ha of private young stands.

The Lithuanian forestry policy is formed following the Constitution of the Republic of Lithuania and other legal acts, and also the Convention on the Conservation of European Wildlife and Natural Habitat, signed in 1979 in Bern, the Biodiversity Convention signed in Rio de Janeiro in 1992, and Forest Protection Principles adopted at the United Nations conference "Environment and Development", the Strasbourg 1990, Helsinki 1993, and Lisbon 1998 resolutions of the Ministerial Conferences on Protection of Forests in Europe , the principles of the European Union forestry strategies, European Union directives on forestry and environment protection issues.

Main priorities for the future development of state and private forest sectors are stipulated in the Lithuanian Forestry Policy and its Implementation Strategy adopted in 2002. This policy was developed and is implemented in four directions: general, environmental and social.

Environmental policy of Lithuanian forestry includes ensuring sustainability of forest ecosystems and preservation of biodiversity and improvement of forest health.

Ensuring sustainability of forest ecosystems will be achieved through:.

• Preparation of the scientifically-based normative proposals for the co-ordination of economic and social issues during the establishment of protected areas, revising the existing boundaries and establishing a related economic regime in these forests;

• Inventory of natural and semi-natural forests (based on FAO classification), a more exact clarification of their protection regime and establishment of new protected territories primarily at the most valuable natural object habitats;

• Restoration of the ecological value of degraded forest ecosystems;.

Preservation of biodiversity and improvement of forest health will be achieved through:

• Improvement of register and protection of rare and endangered plant and animal species and their habitats;

• Reforestation and forest planting upon the ecological-genetic basis, planting more of mixed plantations, hard deciduous, combining afforestation with the natural regeneration, paying a special attention to the formation of sustainable forest edges;

• Increase of the assortment of forest nurseries' production seeking to ensure the stability of the planted forests and preservation of the biodiversity;

• Identifying valuable basic forest populations in each forest natural region, preservation of their natural species and genetic structure, rational use of their genetic resources for the reproduction;

• Improvement of the unified forest fire-emergency and sanitary forest protection systems on the national level taking into consideration the abundance of small-sized private forest holdings;

• Reduce of chemical forest protection means and their replacement with biological and mechanical means;

• A rational use of the game animal resources with the purpose of balancing their numbers in populations, reduction of their damage for forests, and other requirements.

The main private forestry, the importance of which is growing, development strategic objectives are divided into short term and long-term strategic goals. The short-term forestry development objectives are: Completion of the land (forest) reform; Implementation of compensation system for the forest

owners for their losses due to restrictions of forest management activities in the areas under protection; Implementation of measures on prevention of illegal cutting, timber trade and employment; Creation of legal and economic preconditions promoting associations and cooperation of the forest owners; Further development of forestry extension; Creation of legal and economic preconditions for merging small size forest holdings through land consolidation projects.

The long-term main strategic objectives of Lithuanian forest policy in relation to private forestry are: strengthening the sustainable forest management and maintaining the economic viability of the forestry sector; establishment of new forests on private land and implementation of afforestation programme which foresees to increase forest cover by 3 pct during next 20 years; broader integration of private forestry development into general rural development programmes coordinating activities with rural self-governing institutions.

According to Lithuanian Forestry and its Implementation Strategy, approved by the Minister of Environment of the Republic of Lithuania Order of September 17, 2002, No. 484, state and private forestry development in the context of common rural development, either increasing Lithuanian forest coverage by 3 percent in next 20 years are designated as the most important strategic goals of forestry development. Concrete volumes of newly afforestated areas for the period up to 2020 and all related measures are estimated in Aforestation Programme approved by the joint Minister of Environment and Minister of Agriculture Order of December 2, 2002, No. 616/471. It is planned during the period of 2007-2020 to afforestate 7000 hectares of new forests every year in abandoned state and private owned land using European Union finance support. In order to create favourable terms for increasing of Lithuanian forest coverage and to ensure the supply of forest reproductive material for reforestation after felling and for afforestation of new forest areas there was approved State Forest Nurseries Modernization Programme for the period of 2004-2013 by the Minister of Environment Order of August 26, 2003, No. 434.

The Lithuanian Forestry Policy and its Implementation Strategy outlines that the aim is to increase the forest cover in the coming 20 years with 3 pct. In order to fulfil this objective the Lithuanian Forest Increase Programme for 2003-2020 was approved in November 2002. The aim of the programme is to foresee the forest cover increase tendencies and volume in Lithuania taking into consideration the factors influencing the process, forest structure and its territorial distribution as well as accumulated experience in Lithuania and other countries.

The biggest areas have so far been afforested by State forest enterprises (in 2003 – 1,113 ha) whereas the afforestation by private landowners still is not at a satisfactory level. The reason therefore is that private landowners are still examining all the opportunities ahead of them in terms of engagement and possible income coming with the support from EU. Afforestation is the decision, which has no backward action, and since once afforested land becomes forest forever. The real support for afforestation has emerged only in 2005 through implementation of the Rural Development Plan for 2004 – 2006 and could be regarded as a new opportunity for land use. Therefore, the landowners are just now seeing the

real benefits of turning their land, especially the one not suitable for agricultural purposes, into forests. State land survey institute is responsible for the preparation of land use plans for afforestation.

These plans are approved by regional municipalities. Up to 2007 45 land use plans for afforestation have been developed and are being used as key documents in issuing permits for afforestation, the remaining 6 will be prepared by the end of 2007. The criteria for designating areas suitable for afforestation have been revised in order to ensure that forests are established in those areas where it is of utmost importance from an economical, ecological and social point of view. Thus, criteria ensuring the protection of biodiversity, soil, ground and surface waters, cultural heritage and 30 landscape values are being taken into consideration in addition to the soil fertility factor, which used to be the main deciding factor for designation of such areas.

According to the Forest Law of the Republic of Lithuania and other legal acts regulating forestry activities every forest owner must follow such usual forest management practice:

- final clear cutting of mature forest stands in Forest Group III and IV is allowed only if the permission is given and this clear cutting is designed in the forest management plan;

- the clear-cut area shall be reforested within three years after their origin;

- the area of final clear-cut plot is limited up to 8 ha in Forest Group IV and up to 5 ha in Forest Group III.

Usually the clear-cut plots in private forests in Lithuania are smaller and reach 1-2 ha in average. Accordingly about 7 thousand ha of forests are clear-cut out in private forests every year. The volume of such forest cutting is allowed by the legal acts and this is a usual forest management practice in Lithuania. However in order to preserve biological and landscape diversity, to promote natural reforestation with local species of trees and to reduce soil erosion and other adverse effects on forest ecosystems, it is necessary to support non-clear cuttings of forests on voluntary carried out by private forest owners, instead of clear cutting allowed by the legal acts.

This support is foreseen in the Rural Development Programme for the period 2006 – 2013, in the AXIS II - Improving the environment and the countryside. . It comprises three measures:

• Support for afforestation. The aim of the measure is to increase forest area to support the general objectives described but also reduce unemployment, and secure diversification in rural areas. It can further benefit specific forest species, improve conservation of ground water sources, and target prevention of climate change. Eligibility concerns among other the selected tree species for planting, where indigenous species are dominating the list.

• Support for restoration of damaged forests and for increase of ecological and recreational value of forest land. The aim of the measure follows the general description. Specifically under this measure are supported activities improving the biological and recreational value and to restore forest areas after storm eller fire incidents.

• Forest agri - environmental payments. The aim of the measure is to support additional environmental targeted activities beyond basic forest practice according to national legislation. The aim is especially to prevent clear cutting and conserve forest part of key interest from a biodiversity point of view.

Generally the aim of the 3 measures under this priority concerns expanding the forest area of Lithuania in accordance with national priorities and targets. (Including 3 % increase by the year 2020). It aims also at improving ecological conditions of abandoned land, increase the productive, recreational and biological value of forest areas, and secure more sustainable forestry.

Afforestation measure bears compensatory character and is implemented to promote afforestation of agricultural land as alternative land use, to decrease dependency on agricultural activities. It is expected to also significantly contribute to the target set in the National Afforestation programme to increase the forest cover by 3 pct in the coming 20 years. This will improve ecological and environmental conditions in the country and ensure cost-effective use of wasted and low-value land and reach forest cover level of the country close to that of other Baltic countries. In order to ensure that afforestation takes place in the environmentally friendly manner and doesn't bring any harm to natural values, a throughout land use planning for afforestation was carried out. State land survey institute is responsible for the preparation of land use plans for afforestation. These plans are approved by regional municipalities. Up to now more than 50 land use plans for afforestation have been developed and are being used as key documents in issuing permits for afforestation.. During this process the territories suitable for afforestation taking into consideration environmental (biodiversity, water quality, soil quality and sensitivity to erosion, landscape, etc.), economic and social aspects are being designated and support will be given to those falling within these designated territories.

Furthermore, in order to ensure that afforestation as much as possible benefit the biodiversity and environment in general as well as ensure the sustainable forest management, the currently implemented practices, such as establishment of mixed stands with broadleaves dominating whenever appropriate, establishment of forest edges, planting of local species, formation of open areas will be given a special attention during the implementation.

According to Lithuanian Forestry and its Implementation Strategy, approved by the Minister of Environment of the Republic of Lithuania Order of September 17, 2002, No. 484, state and private forestry development in the context of common rural development, either increasing Lithuanian forest coverage by 3 percent in next 20 years are designated as the most important strategic goals of forestry development. Concrete volumes of newly afforestated areas for the period up to 2020 and all related measures are estimated in Afforestation Programme approved by the joint Minister of Environment and Minister of Agriculture Order of December 2, 2002, No. 616/471.It is planned during the period of 2007-2020 to afforestate 7000 hectares of new forests every year in abandoned state and private owned land using European Union finance support. In order to create favourable terms for increasing of Lithuanian forest coverage and to ensure the supply of forest reproductive material for reforestation after felling and for afforestation of new forest areas there was approved State Forest Nurseries Modernization

Programme for the period of 2004-2013 by the Minister of Environment Order of August 26, 2003, No. 434.

Forest agri-environmental payments measure implements the Forestry Strategy of the European Union (1999/C 56/01) an the EU Forest Action Plan adopted on 15 June 2006 where it is intended to promote schemes for forest owners to engage in voluntary environmental commitments and to promote enhancing of ecological value of forests.

Preservation of the biodiversity in the Lithuanian forests is one of the aims stated in the Lithuanian Forestry and its Implementation Strategy approved on 17 September 2002 by Order No 484 of the Minister of Environment of the Republic of Lithuania.

This measure is intended to make a better contribution to preservation of more natural forest environment, raising of awareness among forest owners by providing financial support for forest owners' initiatives to take environmental commitments not stipulated in the legal acts.

Private forest owners are able to engage in forestry activity that is more acceptable from the environmental point of view, that will contribute to preservation the woodland key habitats and raising environmental awareness of forest owners at the same time, and also maintaining high quality biodiversity in forest habitats. This measure creates conditions for development of more environmentally-friendly forestry activities and at the same time preservation of especially valuable WKH in private mature forests. Its objectives are to preserve WKH in private forests and to encourage the scale of non-clear forest cutting systems in private forests.

Forest environment payments are allocated for each hectare of private forests to owners who voluntarily take a commitment not to carry final forests cutting in WKH identified within their areas or carry out non-clear cutting in any other forests instead of clear cutting allowed by the legal acts. Due to such obligations forest owners lose income that is to be compensated.

In Natura 2000 areas, sustainable forest management is being supported through Support for Natura 2000 territories measure, which was developed support management of the established Natura 2000 network in Lithuania, designated under the Habitats and Birds directives. For it to be successfully applied in forests as well, it is intended to support private forest owners to help them tackle the issues that arise in the process of compliance with the Natura 2000 requirements in forests. Forest use restrictions imposed on Natura 2000 territories improve the conservation status of rare and endangered animals and plants, natural and seminatural habitats, however tend to reduce the income of forest owners or demand higher operating costs.

Although these RDP measures are very positive, the challenge is the implementation and financing of sustainable forest management countrywide. To guide the overall implementation of sustainable forest management, national forest programmes/policies are important tools and co-operation with other stakeholders that have relevant information and experiences, including environmental NGOs, and exchange of experiences hereon would be of high value. Hence, national forest programmes could cover

the many aspects of sustainable forest management including, among others, human resource development, biodiversity, criteria and indicators, environmental friendly practices, information systems, financing strategies and afforestation and land-use policies.

However, to promote implementation of sustainable forest management and efficiency in private forestry, there is also a need to have sufficient organisational structures and a well functioning network of owners. The exchange of information, i.e. through extension services, is of importance and highly relevant for co-operation and lessons learned. In addition, monitoring and exchange of experiences with criteria and indicators should follow the implementation of sustainable forest management.

5. Transport

Lithuania, even compared with economically stronger states, has a fairly well-developed road network. There are 6.32 km of roads per 1,000 of population in Lithuania and 326.50 km of state roads per 1,000 sq. km of its territory. The majority of our roads (62.01%) have asphalt pavement.

There are 6 European motorways crossing the country:

E67 Via Baltica: Helsinki–Tallinn–Riga–Panevezys–Kaunas–Warsaw–Wroclaw–Prague,

E28: Berlin–Gdansk–Kaliningrad–Marijampole–Prienai–Vilnius–Minsk,

E77: Pskov–Riga–Siauliai–Kaliningrad–Warsaw–Krakow–Budapest,

E85: Klaipeda–Kaunas–Vilnius–Lida–Cernovcy–Bucharest–Alexandroupoli,

E262: Kaunas–Utena–Daugavpils–Rezekne–Ostrov,

E272: Klaipeda–Palanga–Siauliai–Panevezys–Vilnius.

It is important to preserve, maintain and develop it so that it is smoothly included into the European network. One of the main stimulus to develop the road network in the country is that Lithuania is a transit country with a number of roads crossing it from west to east and from north to south.

While improving the road network there are a number of roads to be reconstructed so that they would meet the requirements of the people and transport as well as all modern technical, economic and environment requirements, were fast, convenient and safe. It remains one of major concerns for the road engineers in Lithuania for the present and nearest future.

Development and maintenance of transport system has multiply effects on biodiversity. Direct environmental impact includes habitat loss, barrier effect, ecological function of the roadsides, changes of hydrological regime, and construction works effect (erosion, disturbing hydrological regime, water pollution, traps). Habitat loss is often accompanied by a number of indirect impacts, such as noise, artificial lighting and increased human presence, that can be felt much further then the territory effected directly. Barrier effect is the biggest negative road impact on animals. The road acts as a barrier for animals if it is on the migration route and i the animals try to cross it they van be killed. The barrier is

both physical and psychological, since animals often try to avoid places with traffic and human migration, as well as big open spaces.

Small animals that live in prolonged habitats such as rivers are very susceptible to barriers, because they migrate constantly. Barriers in such habitats most often let animal go though only in one direction, that can lead to extinction of isolated part of the population. Many invertebrate species, like molluscs and leeches have very limited possibilities for expansion.

Even small road with minimum traffic can become an isolating barrier for them.

Roadsides can have both positive and negative environmental effects. They can facilitate animal migration and create new habitats, but they also facilitate spreading of unwanted plant and animal species. Bridges enable foxes to visit isolated colonies of birds. Changes in hydrological regime include changes in chemical and physical characteristics, increased eutrophication, changes in water level fluctuation and ground water levels.

Indirect impacts include noise, artificial lighting, increase human presence and spreading of alien species. Road lighting rarely composes n obstacle for large animal species and predators, because they are able to adapt to it. But most insects are attracted by light onto the roads and meet danger. Intensive noise can also become an obstacle for animal migration and increases barrier effect of the roads.

The Lithuanian Road Administration under the Ministry of Transport and Communications of the Republic of Lithuania is an enterprise founded by the Government of the Republic of Lithuania which is in charge of organizing and co-ordinating the reconstruction, maintenance and development of the roads of national significance.

The main law concerning transport in Lithuania is Law on the Basics of Transportation Activity (1991, new edition in 2006). It has s short chapter on environmental requirements, but more specifically mentions only noise, pollution levels and dangerous freight.

Long-term (till 2025) Strategy of Lithuanian Transport System (approved on June 23,2005 by The Lithuanian Government Decision No. 692) was prepared as the need to review Lithuanian Transport and Transit Development Strategy (prepared in 2002 as part of Lithuanian Long-term Economy development Strategy till 2015) arose. The Strategy envisages coordinated development and modernization of all kinds of transport infrastructure, reaching standards of old EU member states.

The environmental section of this Strategy does not mention biodiversity specifically, but describes general issues, such as minimizing negative impacts of transport on environment, pollution and noise levels, using alternative and less polluting fuels, and improving environmental measures.

However, protection of biodiversity in transport sector in integrated though environmental impact assessment of planned economic activities, identifying Natura 2000 territories and planning of construction.

Building of motorways or railways, construction of airports or seaports and similar activities are listed in the annexes of to the Law on the Environmental Impact Assessment of Planned Economic Activities. Environmental impact assessment included mandatory assessment of the planned economic activity on biodiversity. The aims of the environmental impact assessment are to identify, describe and assess possible direct and indirect negative impact of the planned economic activity and to determine whether planned economic activity is allowed in the chosen territory.

When environmental impact assessment of planned economic activities is not obligatory, but construction, reconstruction of exploitation of the objects would have impacts on environment, also when measures provided by EIA report have to be described in greater detail and accuracy, construction plan shall include environmental section. This section has to include assessment of present state of environment, impact on the environment of the planned economic activity and measures minimizing this impact.

When the planned economic activity is not listed in the annexes of this Law, but its implementation shall be related to existing of potential Natura 2000 territories and their immediate environment, it is obligatory to establish significance of planned economic activity on Natura 2000 territories. The main objective of this assessment of the plans and programmes of the economic activities is to find out whether conservation status of species and natural habitats in the existing or potential Natura 2000 territories shall not become worse, will the territory's integrity be damaged or not by implementation of the plaeed economic activity.

However, this assessment mainly concerns protected species and habitats, but not biodiversity as a whole.

Practical examples of concrete measures implemented range from recommendations to demolish bridges in separate cases to road fencing and tunnels for wildlife. Until the end of 2008, 335 kilometres of roads of state importance were fenced, 9 tunnels for large animals and 11 tunnels for small animals were built. In 2009 these numbers should increase, and more diverse measures shall be implemented (horizontal barriers, jumping ramps etc). Most of the measures were built on A1 motorway between Vilnius and Kaunas and A2 motorway.

Currently a new document "Recommendations of planning, implementation and maintenance of environmental measures. Protection of Biodiversity" of is being prepared by order of the Lithuanian Road Administration. This document will facilitate implementation of biodiversity related measures in transport sector in Lithuania.

6. Tourism

Growth of GDP influenced by tourism has relatively lower negative impact on the environment compared with other economy sectors. Lithuania's mild climate, natural landscape, high potential for recreational resources, sufficiently rich nature and cultural heritage, an ethnocultural peculiarity create favourable preconditions for tourism development, employment and income increases. Tourism

encourages the protection and nurturance of valuable natural and cultural environment and helps to solve social, economic and nature protection problems in less developed regions. However, uncontrolled and unorganized tourism poses a serious threat to the natural and cultural environment, increases anthropogenic loads on sensitive and unprepared natural territories. Insufficient legal regulation of tourism business and use of recreational resources may pose a threat of too intensive an anthropogenic load on valuable natural territories and their consequent degradation. On the other hand, lack of comprehensively regulated use of recreational resources and norms for protection of these resources may be a risk for unsound prohibitions and limitations that could hamper recreation and, in particular, rural tourism development. Therefore, when planning tourism development, it is necessary to take into consideration valuable natural and cultural environment, solve social, economic and environmental issues of underdeveloped areas, reasonably use natural resources for recreational infrastructure and protect the natural uniqueness.

Richness and variety of nature enjoyed by separate regions accompanied by objects of natural heritage and relatively good road network contribute to the development of rural tourism. Rural tourism is getting more and more popular among city-dwellers. In such way rural tourism acts as a supportive business in rural areas able to yield around 30-40% of total income; it is also becoming an important trend of regional development in land plots of low fertility. The constantly growing popularity of rural tourism is evident during the last few years in Lithuania.

There were 164.1 thousand visitors of rural farmsteads in 2003, while in 2004 this number increased to 196.6 thousands and reached 215 thousands in 2005.The majority of rural or countryside farmsteads are located in relatively natural landscapes. Their location is usually rather close to ecotourism objects. In some cases rural farmsteads may also be regarded as ecotourism objects and they provide ecotourism services, although in rather rare cases.

Forests, lakes, rivers, the Baltic Sea, interesting geo-morphological structures and aesthetic landscapes suitable for tourism make around one third of the total area of the country. General attendance of areas intended for tourism is estimated at more than 60 million people per annum. Lithuania has 5 national parks and 30 regional parks (8.5% of the total land area of the country) which enjoy most favourable conditions for tourism. Natural complex of the Lithuanian seaside has best available conditions for tourism in the whole Baltic Sea region.

One third of woods is suitable both for recreation and hunting. The network of rivers and lakes can be applied for water tourism. 194 parks, 353 natural monuments and 130 reservoirs under the state protection can also be of educational tourism value. Those natural resources should not be only a subject to natural protection; they should serve as resources used for educational tourism and recreation. Those resources are impeded from being used for tourism by the following factors: not readiness, shortage of recreation and accommodation basis or its noncompliance with the current hygienic requirements, lack of information, not readiness of local public authorities and the status of the so-called ‘dependant’. The use of resources not prepared for visitors is harmful to their protection and lessens their attraction to tourists. Approximately 10 million Litas was invested into preparation of

protected natural territories for visitors. This resulted in 120 cognitive trails 39 resting sites, more than 50 view sites, 11 visitor centres.

National and regional parks are most complex preserved territories. These parts of Lithuania are exceptionally rich in unique and attractive natural objects, and their high environmental quality has an exceptional status. The majority of state parks were established in 1992 and already have the infrastructure favourable for the development of ecotourism. The legal environment also favoured the development of ecotourism there. One of the tasks of the state parks, declared in the Law on Protected Areas of Lithuanian Republic, should be providing conditions for recreation and first of all for cognitive tourism. State parks comprise the biggest part of protected territories in Lithuania, and they are distributed so as to represent the variety of Lithuanian landscape. All these premises allow to state that territories of state parks are definitely most favourable areas for the development of ecotourism.

In state parks (protected territories) development of recreation and public tourism infrastructure is organised by administrations of these parks, based on planning documents and park regulations. During 2003–2006, there was a significant increase of planning documents, regulating tourism development in protected areas. Therefore, possibilities for developing tourism in protected areas are even more regulated and purposely oriented towards ecological (cognitive) and active recreational tourism. For these purposes, public infrastructure is established (cognitive trails, resting and view sites, information signs), private sector is oriented towards sustainable development of recreational services, priority is given to rural tourism. State parks' management plans defining environmental and activity priorities make legal basis for division of parks' territories into functional and management zones, that have different regime of use, defining possibilities for developing tourism and recreation in each place of the state park and development of system of infrastructure in the whole territory of the park.

Lithuanian Tourism Policy is reflected in:

• Law on Tourism of the Republic of Lithuania

• National Tourism Development Programme 2007-2013

• Long-Term Economic Development Strategy of Lithuania until 2015

The Law on Tourism (passed by the Parliament on the 19th March, 1998, new edition on April 1, 2003) establishes priorities and principles of tourism development, requirements to tourism services, competence of public administration related to tourism, terms of tourism resources utilisation. One of the principles established is rational and efficient use of tourism resources, which include natural resources. Rural tourism is defined as well.

The National Tourism Development Programme 2007-2013 (approved by the Government decision No. 944 on August 29, 2007) was prepared on the basis of Law on Tourism, National Long-Term Development Strategy, Master Plan of the Territory of the Republic of Lithuania, and Long-Term Economic Development Strategy of Lithuania until 2015. Its purpose is to evaluate national tourism

development trends and, taking into account national, regional and other strategic documents in the tourism sector, to identify priorities for the development of, and investment in tourism in Lithuania and develop measures for the implementation of these priorities.

Nature related tourism to some extent can be found among goals and objectives – support for development of rural tourism and other kinds of sight-seeing tourism.

Protected territories have the best opportunity to develop sightseeing (cultural, ecological) tourism; therefore, it is important to adapt the protected territories for the development of sightseeing tourism (to conduct feasibility studies, create the relevant infrastructure, provide information).The measures include developing and implementation of projects of walking and bicycle trails, visitor centres, camp sites in national and regional parks, with the aid of EU structural funds.

The EU structural assistance or the tourism sector was provided according to the Single Programming Document for 2004–2006 and Operational Programme for Promotion of Cohesion for 2007–2013.

Among supported measures, listed in the measure group “Promotion of incoming and local tourism by using natural resources and cultural heritage as well as by creating conditions more favourable to active recreation“ of priority 1 “Local and urban development, preservation of cultural heritage and protection of nature and its adaptation to development of tourism “of the Operational Programme for Promotion of Cohesion for 2007–2013 (Assistance to tourism) is the measure “Development of infrastructure for ecological (cognitive) tourism, active recreation and health improvement”.

Rural tourism is supported though the Rural Development Programme under Axis III: The quality of life in rural areas and diversification of the rural economy, Measure III.1.3. Encouragement of rural tourism activities.

Besides state and EU support, there are different projects related to revelopment of sustainable and ecological tourism. The most recent example is 2009 Leonardo da Vinci mobility project “Professional competence raising for sustainable tourism destinations’ and services’ development” (PROSUTOUR)., awarded in May of 2009. The project’s goal is adoption of best EU practices in sustainable tourism, developing guidelines for all Lithuanian organisation involved in tourism development. The tasks are:

- to improve skills in planning sustainable tourism, and forming image;

- to gain knowledge about adaptation of special environmental territories and facilities for tourism purposes, involving local communities for increase of added value and social responsibility;

- to get familiar with best practice of heritage tourism in EU, responsible use of resources,;

- to promote information exchange, participation and leadership of all stakeholders to ensure consensus.

- to develop Sustainable tourism guidelines for Lithuanian organizations involved in tourism development.

7. Energy

In the last decade energy consumption efficiency has significantly increased, and quantities of pollutants emitted from energy production have been reduced by almost 3 times. The structure of the primary energy balance has improved – the part of energy resources (natural gas and nuclear energy) that have the least impact on the environment has increased. Input from local and renewable resources into energy production has increased by approximately 4 times. About 9% of energy is produced from renewable resources (mostly wood and its waste).

Consumption of polluting fuel (sulphurous fuel oil and coal) has decreased. The Law on Energy provides for an obligation to revise Lithuania's National Energy Strategy every five years. The first Strategy was approved by the Government of Lithuania in 1994.

Five years later, on 5 October 1999, the Seimas (Parliament) approved the second National Energy Strategy, which was due for a further revision in 2004. However, the resolution of Lithuania to join the European Union and the related pre-accession processes required an approval of a revised Strategy two years earlier than anticipated. This was mainly to establish the exact dates for the final closure of both Ignalina Nuclear Power Plant reactors to meet European Union requirements. Decommissioning of such an important facility has a great influence on the energy sector of Lithuania, thus making it necessary to revise the entire Strategy for the period until 2020.

The National Energy Strategy was approved by Lithuanian Parliament on January 18, 2007. It was developed in line with the fundamental provisions established in the Law on Energy, stating that the long-term planning of the energy sector must be defined with regard to all sectors and general objectives (energy demand forecasts, electricity, heat supply, environmental protection etc.). The Strategy defines the main targets set by the State and directions for their implementation until 2025 by fully adjusting these targets and directions to growing state needs and the most recent international requirements, having regard to the aspects of efficiency, energy security, environmental and management improvement. The environmental requirement refer to climate change, Kyoto protocol, minimizing pollution, and use of renewable recourses, without specifically mentioning biodiversity.

The scenarios for the potential energy sector development were designed, taking account of the general provisions of the energy policy and projections of the economic development in Lithuania, together with the lifetime of the main energy units, the country's international commitments, environmental requirements, available technologies and energy development trends throughout the world and particularly in the neighboring countries.

However, this Strategy was approved without Strategic environmental impact assessment that is obligatory according to Lithuanian legislation.

8. Education and Information

Public information and environmental education is one of the key measures seeking to implement the goals of environmental protection and sustainable development. It is identified as such by the National

Strategy for Sustainable Development, the National Educational Programme 2007-2015 for Sustainable Development, and other national strategic documents.

The goal of the Ministry of Environment is to seek public awareness, experience and skills required for the implementation of sustainable development objectives, also to seek the formation of the environmentally friendly way of life of the society and the improvement of the awareness on environmental protection issues so that the society becomes more actively involved in the decision-making and the implementation of decisions in the field of environmental protection.

The policy of provision of information on the environment to the society is developed in line with the following documents:

1. Directive 90/313/EEC on the freedom of access to information on the environment;

2. Convention on access to information, public participation in decision-making and access to justice in environmental matters (Aarhus Convention).

The above legal acts are based on the recognition of the fundamental right of every person to live in an environment adequate to his/her health and well-being, and the duty to protect and improve the environment. They also provide for the responsibility of the state to create the required conditions for the public to have access to information, to participate in the development of the environmental policy and decision-making in the field of environmental protection.

The system of legislative and organizational measures has been developed for the implementation of the provisions of the Directive and the Convention. The key measures are as follows:

• The procedure of provision of information on the environment to the society approved by Resolution No. 1175 of the Government of the Republic of Lithuania on 22 October 1999 (Official Gazette, No. 90-2660, 1999; No. 26-831, 2005);

• Digest of information on the environment available to public and municipal authorities.

Public Information and Public Relations Department of the Ministry of Environment provides continuous information to the society on the activities of the Ministry and burning issues and problems of the environmental sector, as well as presents the objects of this sector to mass media. For this purpose the Department issues press releases and organises press conferences.

Information is provided on the website of the Ministry. The Public Information Division of the Ministry of Environment functions as the Ministry's representative for information and provides telephone services and services to the interested persons. Information is provided according to the established procedure (Procedure of providing services to citizens and other persons approved by Order No. 624 of the Minister of Environment dated 6 December 2002).

Information provided to the society includes information on the implementation of measures for the preservation of the quality of the environment, natural resources, landscape and biodiversity, and issues

such as territorial planning, housing and construction. Specialists from the Ministry provide consulting and continuously participate in various conferences and seminars, as well as projects carried out by other authorities. Environmental education and information form an integral part of environmental protection legislation.

Neither in the Law on Education of the Republic of Lithuania (adopted on 25 June 1991 No I-1489, as last amended on 4 July 2007 – No X-1266), nor in the Law on Higher Education (adopted on 21 March 2000 No.VIII-1586, last amended on 18 July 2006 — No X-769) mentions biodiversity or environment. Law on Provision of Information to Public (2 July 1996 No. I-1418, Revised version on 11 July 2006 – No X-752) mentions protection of the environment only in relation to advertisement and teleshopping. The National Education Strategy for 2003-2012 (No. IX-1700, 4 July 2003) mentions environment in relation to the mission of education (to ensure balanced and knowledge-based development of the economy, environment and culture of this country, domestic and international competitiveness of the economy, national security and evolution of the democratic society, thus strengthening the creative powers of the society).

Although biodiversity is not mentioned in the main legislation concerning formal education system in Lithuania, it is being widely included in the informal education system though different national projects (such as “Nature near us”), environmental clubs and nature schools, lectures, seminars, conferences and other events. Since 1995, Vilnius Pedagogical University organizes biannual national conference “Biological diversity in Lithuania: status, structure, ecology”, which is a link between biological diversity research and ecological education in Lithuania.

Lithuanian schools also participate in international BSP and GLOBE projects, where pupils learn about environmental issues, also abut biodiversity and sustainable use of natural resources.

Education is an important component in all major projects related to biodiversity conservation.

The general public is targeted though publications nature trails, information centres, special events and media, training courses are organized for the target groups.

9. Climate change

The adverse anthropogenic impact on the state of ecosystems becomes apparent not only through habitat degradation, land reclamation, development, cultivation of natural areas, direct displacement and destruction of species, deforestation and forest fragmentation but also through global climate change that has intensified in the past few decades. Global warming will lead to further degradation of ecosystems and habitats and extinction of existing and emergence of new species. Protected areas will lose a part of their properties. As the ranges of species change and shift northwards and north-eastwards, species will abandon protected areas due to altered conditions. All this will give rise to new threats in the protection of rare species.

Many common measures for species protection and management used in environmental protection will lose their effectiveness. The impact on ecosystems will become apparent through their eutrophication,

dehumidification, change of habitats, increased changes in natural succession and disruption of the balance of ecosystems. Research carried out in the recent years allows making the conclusion that global warming rather than the direct anthropogenic impact is likely to have a greater effect on northern species in Lithuania.

As traditional economic activities are terminated and effective nature management measures are not implemented, a threat to protected sites of biological diversity is likely to arise. The impact from climate warming will be particularly strong on the seacoast of Lithuania. Lithuania's Baltic Sea coastline is 90.6 km in length. It comes under a strong anthropogenic impact: the area has a large Klaipėda Seaport, several oil and other cargo terminals and the country's main resorts. A number of people who reside there engage in fishing and recreation activities. Scientists maintain that the level of the global ocean is rising due to climate warming. According to the projections, the level of water in the Baltic Sea at the coast of Lithuania may rise by 0.1–1 m in the 21st century. The current rise of the water level makes up about 5 mm per year. If the rate remains stable, at the end of the 21st century the coastline will begin to change in a threatening manner and a part of the coastal area will be flooded (not only the Baltic Sea coast but also the coast of the Curonian Lagoon). The rise of the water level will result in more frequent influxes of saline water into the Curonian Lagoon and in a progressive change of the ecosystem of its northern part. The increased frequency of hurricanes and storms will have an even greater impact on the Baltic Sea coast and the beaches, and coast management will demand new investment and innovation. In the event of failure to take preplanned actions, the rise of the water level may cause serious social and economic problems.

The National Strategy for the Implementation of the United Nations Framework Convention on Climate Change until 2012 was approved on January 23, 2008. The ministry of Environment is responsible for its co-ordination and implementation. The Strategy describes the priorities and principles of the Convention and the Kyoto Protocol; summarizes the scientific information available on Lithuanian nature and economy; carries out strategic analysis of the country's economic, social and regional development; provides information on the Lithuanian climate variability and its projections within the context of global climate change; evaluates strengths, weaknesses, opportunities and threats in different economic sectors associated with problems of climate change; contains objectives and tasks for implementing the requirements of the Convention and the Kyoto Protocol in various sectors of the economy, and develops measures for the implementation of the Strategy, intended for different economic sectors and the fields of environmental protection, science and education.

SWOT analysis in this Strategy includes chapter on landscape, ecosystems and biodiversity. One of its objectives is to ensure the assessment of vulnerability of the landscape, ecosystems and biological diversity, and the planning of adaptation options, while the tasks for achieving these objectives are:

• to carry out the assessment of the landscape, ecosystems and biological diversity (also of protected areas) with a view of establishing the impact of climate change on various ecosystems and their parts.

• to ensure conservation of the landscape, ecosystems, protected areas and biological diversity by developing plans for climate change impact mitigation and by providing for specific adaptation measures.

The measures within the first task include assessment of the impact of climate change on the landscape, ecosystems and biological diversity and to develop adaptation measures; preparation of draft legislation that provides for the establishment of protected areas necessary for the implementation of the ecological network Natura 2000; preparation of projects on nature management in protected areas in accordance with the existing and projected impacts of climate change; preparation and approval of plan of measures for the protection and management of the Baltic Sea coast by providing for the most appropriate development of the coastal land use structure; and preparation and implementation of river renaturalisation projects with a view of ensuring the protection of the natural hydrographic network.

The second task includes measures such as preparation of a plan of measures for mitigating the impact of climate change on the karstic region and other sensitive areas; preparation and implementation of measures for wetland protection and management of closed and unused peat mines in accordance with the future impact of climate change; preparation of projects on the rehabilitation of unused landfills and abandoned quarries; and promoting the development of organic farms.

Another task in this Strategy is to promote the adaptation of the energy, industry, transport, agricultural and forestry sectors to climate change and to conserve and increase forest areas Afforestation is an important measure in the context of climate change mitigation as forests play a big role for carbon sequestration and biomass production. In the Forestry Strategy of the European Union (1999/C 56/01) approved of December 15th, 1998 is stated that European forests can best accomplish function of carbon reserve accumulation by preserving present forests and afforestation of new areas.

The related measures in Lithuanian Strategy on climate change are implementation of measures of afforestation of unproductive land with a view of increasing Lithuania's forest coverage by 3–5 percent; preparation of projects on reforestation and afforestation on the environmental and genetic basis and to combine afforestation with spontaneous afforestation; promoting the development of nurseries with a view of ensuring quality and assortment of forest seedlings; preparation of recommendations on the choice of tree species for reforestation and afforestation with account of various environmental factors.

Climate change issues are mentioned also in the Rural Development Programme for the period 2006 – 2013, in the AXIS II - Improving the environment and the countryside.

Priority II.2. of this Axis (Mitigation of climate change) is aiming at combating climate change through rational use of available land resources, in particular abandoned agricultural land not used for agriculture as well as sustainable forestry development.

10. Environmental impact assessment

Environmental impact assessment (hereinafter referred to as the EIA) shall be the process of the identification, description and assessment of the potential environmental impact of the planned economic activity; the principal goal of the EIA shall be to ensure that the competent authority (the

Ministry of Environment, the Environmental Protection Agency and regional environmental protection departments) adopting the decision on the admissibility of the activity in the selected site has information about the potential significant environmental impact of that activity and opportunities to reduce this impact, and be familiar with the public opinion.

Beside the organiser of the planned economic activity (contracting authority) and the person preparing EIA documents, the EIA process also involves EIA entities (public authorities responsible for health care, fire protection, protection of cultural valuables, economic development and agricultural development, also local municipal authorities) and the society.

The EIA is performed in Lithuania since 1996 pursuant to the Law on the Environmental Impact Assessment of Planned Economic Activities (Official Gazette, No. 82-1965, 1996, No. 84-3105, 2005) regulating the EIA process and mutual relations of the participants.

Annexes of this law contain two lists: the List of Types of Planned Economic Activities Subject to the Environmental Impact Assessment (Annex 1) and the List of Types of Planned Economic Activities Subject to Selection Related to the Mandatory Environmental Impact Assessment (Annex 2).

The environmental impact assessment shall be performed:

1) when the planned economic activity is entered into the List of Types of Planned Economic Activities Subject to the Environmental Impact Assessment;

2) when it is established during the selection process that the planned economic activity has to be subject to the environmental impact assessment;

3) when the implementation of the planned economic activity may have an impact on the areas of the European Ecological Network Natura 2000, and the authority in charge of the organization of the security and management of protected areas (the State Service for Protected Areas) establishes that such impact may be significant, following the procedure prescribed by the Ministry of Environment.

Principal goals of the selection of planned economic activities are to establish whether it is necessary to perform the environmental impact assessment of the specific planned economic activity, and to ensure that environmental aspects will be considered during further stages of the activity planning not only by applying technical measures reducing the impact but also by providing complex measures for the prevention of adverse impact.

The selection is performed by the competent authority with due consideration to information provided by the organizer of the planned economic activity about the site where the planned economic activity is intended to be carried out, and information describing the planned economic activity.

Another procedure of the environmental impact assessment is the preparation and approval of the programme. The scope of the EIA is established during this stage. The EIA programme (prepared according to the provisions set for the preparation of the EIA programme and report) shall be submitted

to EIA entities for drawing conclusions. The EIA programme and the conclusions drawn by EIA entities are together submitted to the competent authority for approval. Having analysed the EIA programme and the conclusions drawn by EIA entities, the competent authority shall approve the programme. Based on the approved programme an EIA report is prepared, which shall provide a thorough analysis of the impact on the biota, measures to reduce or compensate the impact, and the alternatives. The prepared report is presented to EIA entities to receive conclusions on the opportunities of the planned economic activity, and to the public during the public hearing.

The EIA report and the conclusions of EIA entities as well as the reasoned assessment of the proposals of the public is presented to the competent authority for decision-making. Having received EIA documents, the competent authority must promptly issue the announcement on the website of the Ministry of Environment. Having analysed the EIA report, the conclusions of EIA entities and proposals of the public, the competent authority shall make a motivated decision whether the planned economic activity is admissible in the selected site with due consideration to its nature and environmental impact.