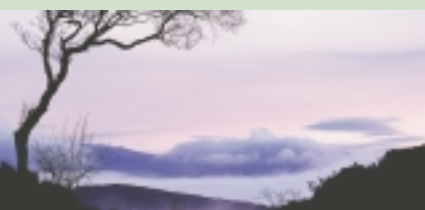
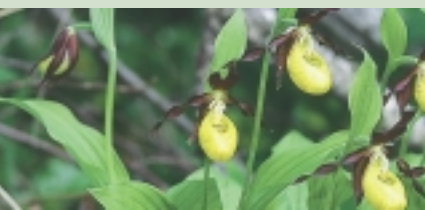




NATIONAL CAPACITY SELF-ASSESSMENT FOR GLOBAL ENVIRONMENTAL MANAGEMENT



NATIONAL
CAPACITY SELF-ASSESSMENT
FOR GLOBAL
ENVIRONMENTAL MANAGEMENT

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Kestutis Navickas
NCSA National Project Manager

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Acronymes

BSR – Baltic Sea Region
CAP – Country Assistance Programme
EIA – Environmental Impact Assessment
EPA – Environmental Protection Agency under the Ministry of Environment
EU – European Union
EUFORGEN – European Forest Genetic Resources Programme
GDP – Gross Domestic Product
GIS – Geographical Information System
Natura 2000 – European Union network of sites designated by Member States under the Birds Directive and under the Habitats Directive
NGO – Non Government Organization
REPD – Regional Environment Protection Department under the Ministry of Environment
RDP – Rural Development Plan
SPD – Single Programming Document
UN – United Nations
UNCBD – United Nations Convention on Biodiversity
UNCCD – United Nations Convention on Combine Desertification
UNFCCC – United Nations Framework Convention on Climate Change

EXECUTIVE SUMMARY

In this Chapter the summary of the main conclusions on Implementation of 3 Rio Conventions is presented as well as recommendations for priority actions.

United Nations Convention on Biodiversity

Conclusions of the Thematic Assessment

1. The areas of regulation of the UN Convention of Biological Diversity (UNCBD) are comprehensively regulated by the national legislation. The Action Plan of the Biological Diversity Strategy was prepared for the period of 1998–2002. When drafting the National Strategy for Sustainable Development (2003), the most important strategic provisions within the area of landscape and biological diversity were included, however, the actual Plan of the Measures for Conservation of Biological Diversity is not available. The Programme of the Government of the Republic of Lithuania 2004–2008 foresees that by the 3rd quarter of 2008 the Biological Diversity Study has to be prepared and the Strategy for the Conservation of Biological Diversity has to be reviewed.
2. The provisions of the Strategy for the Conservation of Landscape and Biological Diversity were included into the National Long-Term Development Strategy (2002), National Strategy for Sustainable Development (2003), and Agriculture and Rural Development Strategy (2000).
3. The Action Plan of the Strategy for the Conservation of Biological Diversity (1998) indicated only the approximate implementation expenditure but the financial report was not prepared. The activities related to the UNCBD regulation areas are set forth in the Single Programming Document 2004–2006 and the Rural Development Plan 2004–2006.
4. While implementing the UNCBD the lack of action coordination between the Ministry of Environment and the Ministry of Agriculture is witnessed. The collaboration among public authorities and scientific institutions is insufficient; the applied researches do not use the budget allocations (state orders) that are in the disposition of the Ministry of Education and Science, there is no cooperation between the Convention coordinator and scientists who are responsible for the corresponding scientific programmes. There is a necessity to coordinate data systems that are compiled for various purposes, e.g. the State Cadastre of Protected Territories, Land Cadastre, and Biological Diversity Cadastre. The Social Commission for the Issues of the Conservation of Biological Diversity is not actually functioning. There are groups formed to coordinate the activity of individual regulation of the UNCBD (the Standing Commission on Plant National Genetic Resources, Invasive Species Control Council, Genetically Modified Organisms Management Surveillance Committee, Committee of Experts on Genetically Modified Organisms), however, there is a need for a systemic coordination of the implementation of the UNCBD.
5. With reference to the survey of scientific researches related to the implementation of the provisions of the UNCBD it can be stated that Lithuania has enough competent expert institutions that implement scientific researches. Some applied scientific researches are initiated and financed by the Ministries of Environment and Agriculture. It has to be noted that the relations between the public authorities and scientists are insufficient, there is no cooperation between the coordinator of UNCBD and the managers of corresponding scientific programmes, the applied researches do not utilise the budget allocations that are in the disposition of the Ministry of Education and Science (state orders).
6. With regard to the analysis of qualification development programmes of accredited civil servants it can be stated that the training intended for the development of general management skills predominate. There are no specialized programmes on the topics related to the UNCBD in the catalogues.

gue of Public Service. Joint seminars, systematic collaboration of scientists and authorities would contribute to their qualification development. Moreover, it is highly recommended to involve the representatives of NGOs and other target groups into the training.

7. The Strategy and the Action Plan for the Conservation of Biological Diversity of the Republic of Lithuania provided for information, teaching and education means; these mostly included various publications and visual material. Various institutions were responsible for the implementation of these means. However, the general report on how and on what scale these measures had been implemented was not prepared. Ministries, municipalities and NGOs have implemented quite a large number of public information and education means on the issues of biological diversity. The input of the Directorates of protected territories is worth mentioning. Their contribution was considerable in informing about the protected nature and historical values, landscape and biological diversity, possibilities to get acquainted with the aims of protected territories as well as specific objects.

United Nations Framework Convention on Climate Change

Conclusions of the Thematic Assessment

1. The areas of regulation of the UN Framework Convention on Climate Changes (UNFCCC) are comprehensively regulated by the national legislation; the National Implementation Strategy was approved in 1996. The Programme of the Government of the Republic of Lithuania 2004–2008 establishes that by the 2nd quarter of 2008 the revised project of the National Implementation Strategy of the UNFCCC has to be prepared. The Ministries of Environment and Agriculture are responsible for it.

2. The most important strategic provisions of the reduction of the impact of climate changes were included in the National Long-Term Development Strategy (2002), the National Strategy for Sustainable Development (2003), as well as in strategic documents of economic, transport, environment, and rural development sectors. However, it has to be noted that strategies of individual sectors were predominated by the measures to improve the quality of environment with no consideration to the inter-relations of the conventions and the integral impact of climate changes on ecosystems and human health.

3. Individual funds for the implementation of the means of the National Implementation Strategy of the UNFCCC have not been allocated. Quite a few means are financed while implementing the National Energy Strategy, the National Programme on Increase of Energy Consumption Efficiency and the Law on Environmental Monitoring. Climate change mitigation means are not directly mentioned in the Single Programming Document 2004–2006.

4. While implementing the UNFCCC the lack of action coordination not only among different ministries but also among the departments of the Ministry of Environment is witnessed. The activity of the National Committee on Climate Change is ineffective as it has no rules of procedure and there are no ways to ensure that the related institutions included committee's decisions into their strategic documents and action plans.

5. With reference to the survey of scientific research related to the implementation of the provisions of the UNFCCC it can be stated that Lithuania has enough competent expert institutions that implement scientific research in the areas of the regulation of the UNFCCC. The Ministries of Environment, Economy, Transport and Communications, and Agriculture initiate and finance the scientific researches related to climate changes, however, there is still a need for the collaboration of the ministries and coordination of the researches. The collaboration of the coordinator of the UNFCCC with the related public authorities and managers of corresponding scientific programmes is insufficient; part of the orders related to the implementation of the Convention are fulfilled by individual experts but not by the institutions. Applied researches do not use the budget allocations that are in the disposition of

the Ministry of Education and Science (state orders), moreover, applied researches are not promoted by the methodology of activity evaluation.

6. With reference to the analysis of qualification development programmes of accredited civil servants it can be stated that the training intended for the development of general management skills predominate. There are no specialized programmes on the topics related to the UNFCCC in the catalogue of Public Service. Common seminars, systematic collaboration of scientists and authorities would contribute to their qualification development. Moreover, it is highly recommended to involve the representatives of NGOs and other interest groups into the training.

7. Ministries, municipalities and NGOs have implemented within their field of competence quite a large number of public information and education measures related to the issues of energy saving and its effective consumption. A special national public information and education programme on climate changes has not been prepared. The measures implemented by various institutions, such as the preparation of publications, distribution of documents, organization of seminars were included into the National Implementation Strategy of the UNFCCC.

United Nations Convention to Combat Desertification

Conclusions of the Thematic Assessment

1. The regulation areas of the UN Convention to Combat Desertification (UNCCD) are based on the national legislation. The National Strategy for Convention Implementation has not been prepared since Lithuania is not treated as "an affected country" from the point of view of the UNCCD. This status should be changed with regard to the arguments presented below:

- Mechanically affected hilly landscape becomes especially sensitive to wind and water erosion;
- Uneven distribution of precipitation (showers and droughts) determine the erosion of soil; erosion is also caused by the elution of calcium carbonate;
- Untended, declining melioration equipment add to the water-evoked soil erosion;
- Acidification of soil arouses the threat of the exhaustion of farmlands;
- Due to the use of intensive ways of agriculture, including ecological agriculture, soil loses nutritional materials; it becomes more vulnerable to the influence of wind and water that causes erosion;
- EU payment system for agriculture promotes agriculture with no consideration of the peculiarities of soil, therefore, there is a necessity to foresee soil erosion and farmlands exhaustion prevention means.

2. Lithuania-relevant measures necessary to implement the requirements of the UNCCD were included into the National Long-Term Development Strategy (2002), National Strategy for Sustainable Development (2003), and Agriculture and Rural Development Strategy (2000).

3. As the National Action Programme implementing the UNCCD has not been prepared, the targeted financing to implement it has not been allocated. It is intended to implement the related measures in accordance with the Programme of the Government 2004-2008 and the Rural Development Plan 2004-2006.

4. When implementing the UN Framework Convention on Climate Change (UNFCCC), the lack of action coordination between the Ministry of Environment and the Ministry of Agriculture is witnessed. The collaboration among state institutions and scientific institutions is insufficient; the applied researches do not use the budget allocations (state orders) that are in the disposition of the Ministry of Education and Science, there is no cooperation between the Convention coordinator and scientists who are responsible for the corresponding scientific programmes.

5. With regard to the survey of scientific researches related to the implementation of the provisions of the UNCCD it can be stated that Lithuania has enough competent expert institutions that could become initiators of various projects or scientific programmes in the future. It has to be noted that the bigger part of the scientific research in the area was executed according to the international projects.

6. With reference to the analysis of qualification development programmes of accredited civil servants it can be stated that the training intended for the development of general management skills predominate. There are no specialized programmes on the topics related to the UNCCD in the catalogue of Public Service. Joint seminars, systematic collaboration of scientists and authorities would contribute to the qualification development. Moreover, it is highly recommended to involve the representatives of NGOs and other target groups into the training.

7. On the state level, the public information and education activity related to the implementation of the UNCCD has not been planned. The information on the quality of soil is provided in the annual survey "State of Environment" of the Ministry of Environment. The Ministry of Agriculture prepares and distributes the information on the safety of environment in agriculture, the exhaustion of farmlands and prevention means, the ecological farming among them.

Implementation of 3 Rio Conventions

Conclusions of Cross-Cutting Assessment

1. When transposing requirements of the Rio conventions into the sectoral strategies and action plans, not sufficient attention is paid to cross-sectoral relations. Criteria for the assessment of the measures implemented are fragmentary, related to priorities of particular sector and do not include integrative criteria of the result (according to the programme goal) and effect (according to the strategic goal).

2. The Strategic Planning Methodology (version of 2004) defines the system of the national planning documents as an essential precondition for developing and implementing cross-sectoral (inter-institutional) strategies and programmes which are adequate to the requirements of the Rio conventions. The Methodology defines only general principles for coordination of the inter-institutional programmes but there are no methodological guidelines for their implementation in practice. Criteria as to in what cases an inter-sectoral (inter-institutional) programme must be developed are not defined as well.

Cross-sectoral requirements of Rio conventions should be implemented not only at the national but also at the municipal level; therefore they must be integrated into municipal strategic development plans. The Law of the Republic of Lithuania on Regional Development provides that municipalities may develop strategic development plans but in the most Lithuanian municipalities strategic planning still is not introduced.

3. The Methodology for Assessment of the Draft Decision promotes a systemic approach and determines assessment criteria of decision impact on various fields; on the other hand, it is not defined how mutual relations between the fields will be taken into account which are important in evaluating results of cross-sectoral (inter-institutional) programmes.

4. There is a legal basis for the provision of information on draft legal acts, but the public is not encouraged to be interested in the activities of the Government and municipal institutions.

In order to ensure an optimal solution based on comprehensive information about the possible impact of the decision, it is necessary to provide more favourable conditions to involve into discussion not only interested institutions but also other groups (e.g. business and non-governmental organisations) whose activities will be affected by the decision. It is also necessary to develop abilities of civil servants to assess possible impact of the draft decisions.

5. The Strategy for the Public Administration Development until 2010 provides a comprehensive analysis of the sector reflects properly problems formulated in the thematic reports of 3 Rio Conventions. However, a problem of inter-institutional cooperation both in the Strategy and in a corresponding activity plan is associated only with individual competencies of civil servants and the personnel management issues; no measures are defined at the institutional level.

6. Permanent committees and commissions acting according to the Law on the Government may be an effective tool for solving cross-sectoral problems; unfortunately, not all of them function actively and efficiently. Special focus should be placed on the prospects of the National Commission on Sustainable Development.

7. In solving cross-sectoral problems related to 3 Rio Conventions (sustainable development) the cooperation of research and governmental institutions should be promoted.

It is important to develop the abilities of civil servants to identify strategic areas whose development requires scientific research. The need of scientific background for the strategic decision making should be formalised through the Strategic Planning Methodology.

Scientific institutions should be encouraged to include interdisciplinary applied research into their plans through determining relevant state priorities and evaluation criteria, improving system of the state requests, etc. A targeted state programme for sustainable development research should be established as a precondition to develop specific projects.

8. Among the in-service training programmes for civil servants provided by the Civil Service Department there are no programmes devoted to the topics of cross-sectoral planning, implementation of inter-institutional programmes and horizontal issues of sustainable development as well. In implementing the management model of cross-sectoral programmes it would be desirable to initiate respective education programmes for officials of various levels and to register these programmes according to the legal acts regulating the in-service training of civil servants.

9. Since 2005 the Ministry of Education and Science has been participating in the implementation of the Strategy for Education for Sustainable Development Education by the United Nations Economic Commission for Europe. By 2007 it is planned to develop and approve the National Programme for Education for Sustainable Development in cooperation with all interested ministries, scientific and educational institutions, municipalities, non-governmental organisations, etc. Its implementation will contribute to the public education and information tasks related to Rio Conventions. On the other hand, public awareness raising should be integrated into the revised national Strategy for Biodiversity Conservation and the Strategy for Implementation of Framework Convention on Climate Change.

Recommendations for Priority Actions

Pursuant to the conclusions of cross-cutting assessment it should be noticed that to successfully implement the requirements of 3 Rio Conventions and ensure a long-term effect, it is necessary to improve the management model of cross-sectoral (inter-institutional) programmes and develop appropriate competences of civil servants. Legal preconditions for solving these problems are provided by the Strategic Planning Methodology, which is being continuously improved according to needs of the changing situation, and other legal acts regulating the aspects of strategic planning and management.

Recommended actions are presented in the following table.

Objectives	Measures
1. To improve the Strategic Planning Methodology; to address quality management in implementing multilateral environmental agreements.	1.1. To define planning procedures for cross-sectoral (inter-institutional) programmes according to the Strategic Planning Methodology; piloting of the procedures in the case of the Strategy for Biodiversity Conservation.
	1.2. To prepare methodological guidelines for cross-sectoral (inter-institutional) planning.
	1.3. To develop a staff training curriculum for cross-sectoral planning and sustainable development integrated into the in-service training system for civil servants.
2. To develop a coordination model for the cross-sectoral (inter-institutional) programmes related to the implementation of 3 Rio Conventions.	2.1. To define the institutional setup for coordinating cross-sectoral (inter-institutional) programmes.
	2.2. To establish administrative procedures to manage cross-sectoral issues (including monitoring and evaluation) in relation to Rio Conventions at the Ministry of Environment as a coordinating institution; piloting of the coordination model in the case of the Strategy for Implementation of Framework Convention on Climate Change.
	2.3. To develop a Quality Management System to ensure efficient implementation of cross-sectoral (inter-institutional) programmes.
	2.4. To develop a staff training curriculum for the implementation of cross-sectoral (inter-institutional) programmes integrated into the in-service training system for civil servants.
	2.5. To generalize a coordination model of Rio Conventions for the implementation of the National Strategy for Sustainable Development.

The development of cross-sectoral (inter-institutional) management will ensure not only the efficient implementation and long-term effect of the 3 Rio Conventions but will contribute to the implementation of the National Strategy for Sustainable Development and the public administration reform.

METHODOLOGY

National Capacity Self-assessment was focused on three levels: **systemic**, **institutional** and **individual**. At the **systemic** level of capacity constraints was evaluated the overall policy and legal framework as well as a proper institutional set up, and financial resources available to support implementation of the conventions. At the **institutional** level were assessed overall organizational performance and functioning capabilities as well as the ability of an organization to adapt to change. At the **individual** level were assessed demands for developing skills and professional knowledge.

The NCSA in Lithuania has been started in March 2004. The project office at the Country Office Lithuania of the Regional Environmental Centre (REC) was open in April 2004. The National Project Director Mr. Aleksandras Spruogis, under State Secretary of the Ministry of Environment, was appointed by Order of the Minister of Environment (20 May, 2004, No. D1-283). By the same order the National Steering Committee (NSC) has been established. The NSC has a following representatives: State Secretary of MoE, Chairman (Project Director); Senior Specialist of the Agro-Environment and Eco Farming Unit of the Department of Food Safety and Quality of the Ministry of Agriculture; Senior Specialist of Natural Resources Unit of the Nature Protection Department of MoE; Senior Specialist of River Basins Management Unit of the EPA; Senior Specialist of Extreme Situations Preventions Unit of the Ministry of Communication and Transport Senior Specialist of Protection and Management Unit of the State Protected Areas Service; Senior Specialist of Forest Development Unit at the Forest Department of MoE; Senior Specialist of Biodiversity Unit of Nature Protection Department of MoE; Head of Air Quality Division of Environmental Quality Department of MoE; Senior Specialist Education Development Unit of Ministry of Education and Science; Head of EU Funds Management Division of MoE; Senior Specialist of International Relations and Agreements of MoE; UNDP Programme Coordinator.

The first NSC meeting has been organized on 31 May 2004. During the meeting the national project coordinator has appointed, discussed and agreed that Terms of Reference of the Experts of the 3 thematic working groups and detailed project workplan.

For the undertaking stocktaking and the thematic reports the thematic working groups were established. The leader of Climate Change working group was selected Mr. Saulius Piksrys, expert of "Atgaja" community; the leader of Biodiversity working group was selected Dr. Pranas Mierauskas, Executive Director of Lithuanian Fund for Nature; and the leader of Land Degradation working group, Dr. Zenonas Gulbinas, expert of Nature Heritage Fund.

The following steps were taken in the NCSA:

Planning, including stakeholders' analysis

The aim of this step was to review the detailed project workplan and make amendments if necessary based on the most up to date information. Also revise if all stakeholders were considered in the project proposal to ensure proper stakeholders' involvement. The following methods were used:

- desk study to review the latest national documentation and assess if the workplan still relevant. The desk study also was used to review various data bases to ensure if new organizations were created which should be involved in the NCSA;
- consultations with stakeholders on project workplan and list of stakeholders;
- Project Steering Committee meeting to discuss and approve workplan and experts' Terms of References.

Stocktaking

Stocktaking was taken to create an open, non-controversial description of previous activities concerning capacity development on implementation of 3 Rio Conventions. The conventions' Focal Points were the key information sources and advisers.

The following methods were used:

- desk study to review project's databases and final reports, also official reports to European Commission and the Conventions secretariats. Internet resources were used as well;
- consultations with stakeholders (including experts involved in previous projects) was taken to assess their activities and establish linkages with NCSA.

Developing Thematic Profiles

The Thematic Profiles were developed by the thematic working groups with professional contribution by the Conventions' Focal Points to set out all issues in a descriptive and neutral manner. The thematic assessment includes: baseline assessment, analysis of the national legislation including gaps assessment and linkage with the National Sustainable Development Strategy, institutional setup and its efficiency, efficiency of cross-institutional coordination, overview national and international financial resources, contribution of scientific institutions (its studies and assessment of the long-term programmes) and provisions and information to the public and awareness raising activities.

The uniform format of the 3 Thematic Profiles was developed by leading experts of the Thematic and cross-cutting working groups. First, specific Convention's obligations relevant to the country needs and national priorities were selected. Capacity constraints for implementation of these obligations were assessed at 3 levels: **systemic** (ratification and overview of the status of the Convention implementation; reflection of convention obligations in national legal acts), **institutional** (institutional framework) and **individual** (qualifications of civil servants). Conventions' implementation means (financial resources; applied research; public awareness raising and education) were considered as horizontal issues and assessed in separate chapters.

The following methods were used to develop the Thematic Profile:

- **desk study** to review implemented national projects supported by international organizations as well as programmes financed from the State budget, official reports to the European Commission and the Convention secretariats. The linkage of the national legislation with the Conventions obligations were assessed. Internet resources were used as well;
- **consultations with stakeholders** were done on permanent bases to ensure quality of the Thematic Profile and make sure if all capacity constraints are addressed and considered. The final version of the Thematic Profile was distributed to stakeholders with request for their comments. The appropriate amendments to the Thematic Profile considering stakeholders contribution were discussed and agreed at the thematic workshops;
- **survey.** Two questionnaires were developed: 1) to collect information from NGOs concerning their activities and projects in thematic areas. It was distributed to all relevant NGOs, the survey was done by subcontracting company "Baltic Environmental Forum". 2) the second questionnaire was developed to assess level of individual professional knowledge and skills to implementation 3 Rio conventions. The survey was done by subcontracting company "Environmental Centre for Administration and Technology";
- **workshops.** There were 8 workshops organized for various groups of stakeholders. The first workshop (09/03/2005) aimed to discuss the science support to policy development on implementation of 3 Rio Conventions. The workshop was attended by 14 participants from various national scientific institutions and the Ministry of Environment, the Ministry of Education and Science and UNDP country office. The second workshop (12/04/2005) was organized in cooperation with the Environmental Policy Centre to present problems concerning implementation of UNFCCC, the workshop was dedicated to NGOs (22 participants attended the workshop). The third workshop (15/06/2005) was organized to discuss science support in the implementation of UNCCD; 10 participants from scientific institutions, the Agency for International Science and Technology Development Programmes, the Minis-

try of Environment and the Ministry of Agriculture took part in this workshop. The fourth workshop (22/06/2005) was organized to discuss science support in the implementation of UNFCCC, 11 participants from scientific institutions, the Agency for International Science and Technology Development Programmes, the Ministry of Environment, the Ministry of Communication and Transport and the Ministry of Agriculture attended the workshop. The fifth workshop (18/10/2005) was organized to discuss feed back from stakeholders on the final Thematic Profile on UNCCD, 9 participants from scientific institutions, NGOs, the Ministry of Environment, the Ministry of Agriculture and UNDP CO took part in the workshop. The sixth workshop (19/10/2005) was organized to discuss feed back from stakeholders on the final Thematic Profile on UNCBD, 22 participants from scientific institutions, NGOs, the Ministry of Environment, the Ministry of Agriculture and UNDP CO took part in the workshop. The seventh workshop (24/10/2005) was organized to discuss feed back from stakeholders on the final Thematic Profile on UNFCCC, 15 participants from scientific institutions, NGOs, the Ministry of Environment, the Ministry of Agriculture, the Ministry of Communication and Transport, the Energy Agency and UNDP CO attended the workshop. The eighth workshop (11/11/2005) was organized to present the final Thematic Profile on UNFCCC to the National Committee on Climate Change;

- **mini-workshops** of 3 working groups were organized to develop the common format of the Thematic Profile as well as discuss difficulties and sharing lessons learned among teams of the working groups;
- **Presentation to the National Steering Committee.** The Thematic Profiles format, and final reports were presented to the project National Steering Committee;
- **Individual interviews and consultations.** Consultations were focused on expert institutions in the sectors related to the Ministries of Agriculture, Education and Environment as well as the Convention's Focal Points. Moreover, experts representing various interest groups were addressed;
- **E-mail networking** with relevant institutions and experts. The NCSA reports were distributed by e-mail in order to ensure timely dissemination and feedback. This provided for virtually continuing contact with stakeholders (**E-networking**).

Developing Cross-Cutting Assessment Report

In order to undertake cross-cutting assessment the 4th working group was established headed by Dr. Laima Galkute, Project Manager of REC.

The cross-cutting analysis was done by reviewing all thematic profiles. The problems which are common for all 3 Rio Conventions were selected priority problems for developing the action plan. The working group presented the priority issues for the stakeholders of the 3 Rio Conventions to discuss them and approve if it would be appropriate for stakeholders. For this a consultation workshop was organized, the output of the workshop presented below.

The stakeholders agreed to select following common problems:

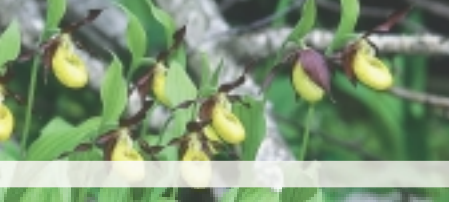
- distribution of convention requirements and their implementation measures into sectoral strategic plans without ensuring their integral monitoring;
- insufficient inter-institutional coordination and cooperation without taking into account inter-connections and inter-actions among the conventions;
- applied scientific research is not sufficiently used to formulate strategic provisions when drafting inter-institutional programmes and planning the measures of their implementation;
- lack of coherent education and information on sustainable development, the public is not encouraged to take an active part in the discussion and implementation within its competence of sustainable development provisions.

Afterwards the Cross-Cutting Assessment Report was presented to the stakeholders together with the National Report on the Implementation of the National Strategy for Sustainable Development to demonstrate linkages of the cross-cutting issues. The meeting on the 17th of January 2006 attended by 42 participants from the Ministry of Environment, the Ministry of Education and Science, the Ministry of Social Security and Labour, various national scientific institutions and universities, NGOs and UNDP country office. Participants of the workshop identified priority problems presented by the WG4 as problems which should be addressed to the action programme, even more the cross-cutting problems of the 3 Rio Conventions are the key problems for proper implementation of the National Strategy for Sustainable Development.

The working group focusing on cross-sectoral issues developed following strategic streamlines:

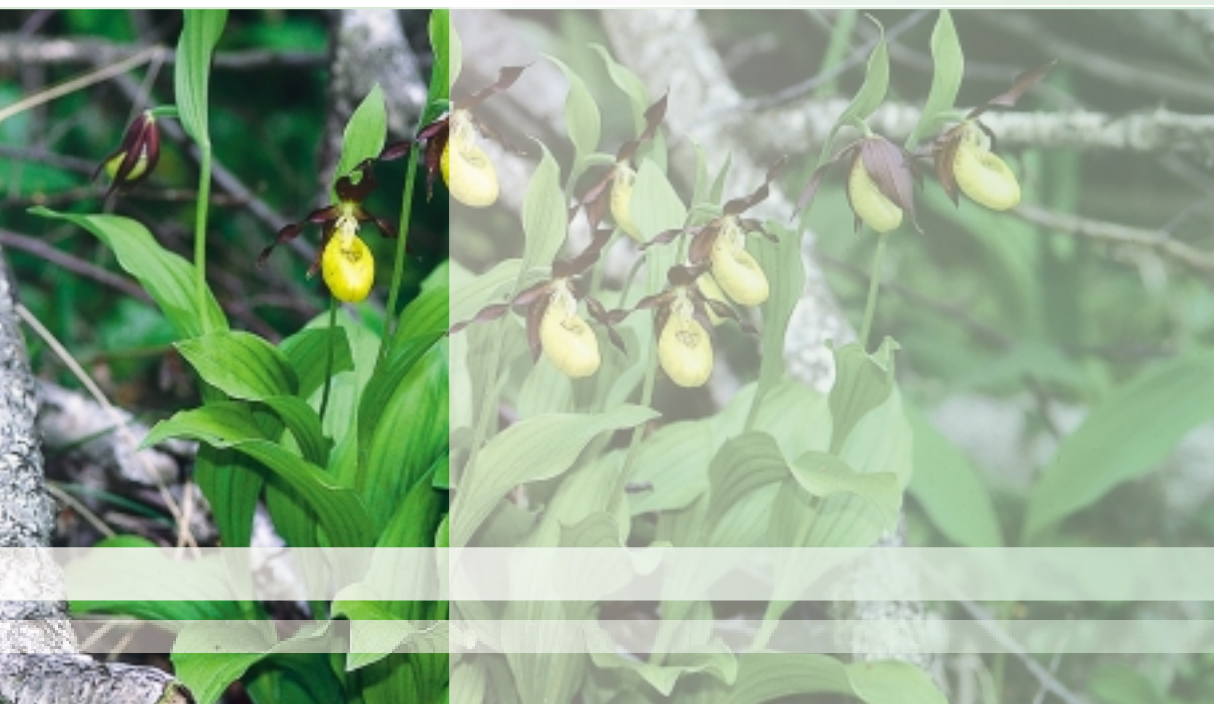
- management and administration of inter-sectoral programmes (including the aspect of public participation);
- inter-action of strategic planning and scientific research;
- public information, education and enhancement of qualifications.

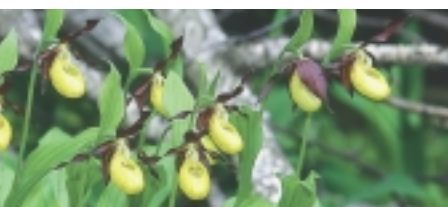
The final Cross-Cutting Report including priority action for evaluation was presented to 3 Rio conventions stakeholders on the 13th of February 2006. The list of invited participants was taken from the stakeholders analysis report. 25 representatives of stakeholders' organization attended the workshop. The participants approved the project with comments which were incorporated into the final Cross-Cutting Assessment Report.



UNITED NATIONS CONVENTION ON BIODIVERSITY

Thematic Assessment Report





Ratification of the Convention and Current Status

The United Nations Convention on Biological Diversity (CBD) was ratified by the Parliament of the Republic of Lithuania by its Resolution No. I-985 of 3 July 1995.

Areas Regulated by the Convention

Ensuring conservation of biological diversity (both *in-situ* and *ex-situ*).

Objectives:

- to formulate and implement the principles of establishment and management of protected areas and develop a system for conservation of biological diversity;
- to ensure protection and appropriate use of biological diversity outside protected areas;
- to restore degrading ecosystems and recover (rehabilitate) threatened species;
- to create and implement measures to control and manage entry and presence of alien species in the natural environment;
- to develop measures and procedures to prevent and assess negative impact by plans, programmes, projects and policies upon biological diversity, ensuring involvement of the public;
- to develop and implement a system of measures to breed, restore (rehabilitate) and reintroduce local threatened species;
- to manage the collection of biological resources for the purpose of keeping or breeding them in captivity.

Sustainable use of components of biological diversity.

Objectives:

- to develop a system of measures to ensure sustainable use of biological resources;
- to encourage the public to augment and use biological resources in traditional ways and to restore resources at places where they have been destroyed;
- to encourage cooperation between public and private sectors in the area of the use of biological resources;
- to develop measures to mitigate the negative impact upon biological resources.

Appropriate use of and ensuring access to genetic resources.

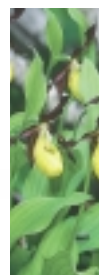
Objectives:

- to develop a national legal and administrative system of measures for using and controlling genetic resources;
- to ensure access to and supply, under bilateral agreements, genetic resources to other countries in order to implement the objectives set out in the Convention;
- to conduct research in the field of genetic resources and develop cooperation between the Contracting Parties to the Convention.

Control of modified organisms, management of and ensuring access to biotechnologies.

Objectives:

- to develop legal and administrative measures enabling to develop, manage and transfer biotechnologies and retain copyright of the technologies;



- to ensure that access to and transfer of biotechnologies are in line with the objectives of protection and sustainable use of biodiversity laid down in the Convention, without significant impact upon the environment;
- to provide information about the modified organisms' use, safety and potential negative impact upon the environment in the states into which they have been introduced.

The Republic of Lithuania has undertaken, in accordance with the CBD requirements, to prepare a national biodiversity study, strategy and action plan. The Strategy for Conservation of Biodiversity for a twenty-year period was approved by Order of the Minister of Environment and the Minister of Agriculture and Forestry in 1998. This document identifies actions for 1998-2002. The National Sustainable Development Strategy (2003) includes basic strategic precepts in the area of landscape and biodiversity.

Assessment of Current Status

Quite a lot of relatively natural territories characterised by abundant biodiversity of European significance have remained in Lithuania. From 24,000 to 25,000 biological species (including over 15,000 species of insects and over 7,000 species of fungi) are found in different ecosystems – marine, freshwater, sands, forests, grasslands and wetlands. Some of the species are rare and endangered. As of 2002, 782 rare species of plants, fungi and animals were listed in the Red Book of Lithuania. The list was supplemented in 2003 in accordance with the EU requirements and now contains 815 species: fauna – 259, flora – 357, fungi – 134 and lichen – 65. Certain species listed in the Red Book are becoming more abundant as a result of effective protection efforts (e.g. sea eagles, cranes, corncrakes, trumpeter swans, otters and bats¹).

During Soviet times the status of biodiversity in Lithuania was mainly influenced by land reclamation, due to which natural grasslands and wetland dried up, streams were converted into channels, river valleys were ruined, and small fields and farmsteads were destroyed. Due to the agrarian crisis after restoration of Lithuania's independence, abandoned land areas started increasing and open areas became overgrown with low-value bushes, trees and high grass. Under such conditions habitats are vanishing, while populations of rare birds are becoming extinct. Usage of grasslands and pastures has decreased. First of all boggy areas less suitable for farming inhabited by rare wetland bird species as well as other species which are currently protected both in Lithuania and the EU were abandoned;

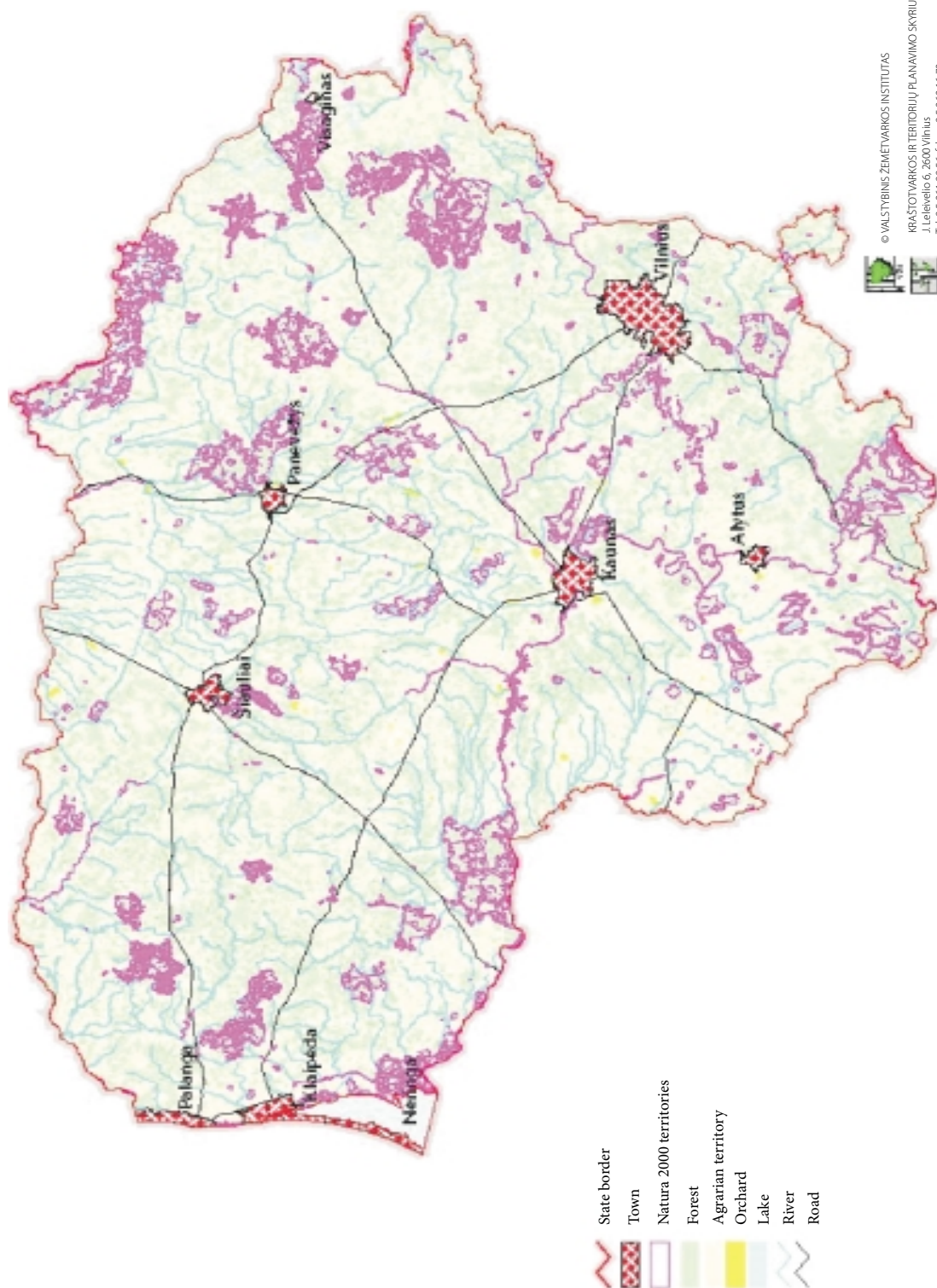
As of 2004, state-protected areas containing values of natural and cultural heritage occupied 12% of the country's territory (4.7% in 1992) and included 5 state reservations, 1 biosphere reservation, 5 national parks, 30 regional parks, 355 preserves (including 254 state and 101 municipal); 683 protected objects of natural heritage were on the register². In order to protect natural and cultural values, both prevention measures and measures to restore damaged and exhausted areas are being taken. The forest development programme, afforestation of barren land and agrarian environmental measures play a very important role in ensuring protection and augmentation of biodiversity.

Fifty-three of 218 types of habitats protected in the EU (as specified in the Habitats Directive) are found in Lithuania. Natura 2000, the EU network of sites designated by Member States under the Birds Directive and under the Habitats Directive, implementation of which started in Lithuania in 2003, is based on the provisions of the Directive. Thirty-nine areas (out of 78) important for bird protection were established in 2004. It is expected that the area of Lithuania's protected territories will increase up to 14%-15%, stabilising both landscape and biodiversity in the set areas. Territorial distribution of Natura 2000 is shown in the map below.

¹ State of the Environment 2003. Ministry of Environment of the Republic of Lithuania, Vilnius, 2004.

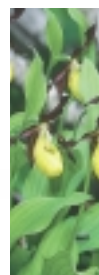
² Ibid.





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Natura 2000 Sites



Development of Natura 2000 does not involve the establishment of nature reserves in which any human activity is banned on a systematic basis. In the territories established for the protection of biodiversity, human activity compatible with environmental objectives should be maintained or encouraged.

In order to ensure the stability of populations and habitats in Lithuania's internal waterways and to restore and conserve protected species, a list of rivers which are valuable from an ecological and cultural standpoint and in which constructing dams is prohibited was approved in 2004.

Intensive farming often harms biodiversity, however, an opposite process has been taking place in Lithuania in recent years: farms based on the principles of ecological production are being established and farmers are encouraged to increase soil fertility, reduce environmental pollution and conserve biodiversity. The number of ecological farms is growing every year: 290 in 2001 (certified land area 6,469 ha), 393 in 2002 (8,780 ha), 697 in 2003 (23,289 ha). In 2004, Public Institution Ekoagros certified 1,179 ecological farms, while the area of the certified ecological farms totalled 42,961 ha, accounting for over 1% of the country's total arable land³.

The forest development programme, afforestation of barren land, and agrarian environmental measures are essential in ensuring conservation and augmentation of biodiversity.

Development of a legal and administrative system for regulation of the use of genetically modified organisms (GMO) was completed in 2003. An inventory of GMO use in Lithuania was made and 260 entities permitted to use GMO were surveyed. Eleven entities and research organisations are entitled to limited use of GMO. Three permits to limited use of GMO were issued to newly formed entities⁴.

The Plant Gene Bank (an institution financed from the state budget) was established for the purpose of preserving national genetic resources of wild flora. A programme for the preservation of forest genetic resources and selection development has been approved. The programme establishes measures for the accumulation, conservation and selection of Lithuania's forest genetic resources and seed farming development measures to ensure the genetic diversity of forests and productivity, as well as resistance to the environmental effects by propagated forests. Lithuania is taking part in the European Cooperative Programme for Crop Genetic Resources Network (ECP/GR) and the European Forest Genetic Resources Programme (EUFORGEN)⁵.

Strengths

- Rich landscape and biological diversity preserved; increasing afforestation level.
- Consistent process of establishing protected areas and formulation and implementation of nature management plans in these areas will stabilise both landscape and biodiversity.
- Enhancement of the GMO control system.

Weaknesses

- Land reclamation has destroyed natural grasslands and pastures as well as a considerable part of wetlands, converted many rivers and streams into channels, and greatly impoverished both Lithuanian landscape and biological diversity.
- Upon the restoration of independence a part of the infertile but very valuable in terms of biodiversity grasslands and pastures were abandoned and are now overgrown with low-value bushes and trees. The mechanism of compensations for agro-environmental measures in the protected areas is still not effective.
- No methodologies for collection of data on important species and habitats have been prepared.

³ National Rural Development Plan for 2004-2006.

⁴ Report on the Implementation of the National Long-Term Development Programme, 2005.

⁵ Ibid.



Opportunities

- Implementation of the Strategy for Conservation of Biodiversity and the Related Action Plan, the National Programme for the Increase of Woodedness and other special-purpose programmes as well as assistance from the EU Structural Funds and other funds will enable restoration of the damaged ecosystems and ensure their stability.
- Development of farms based on agrarian environmental measures and principles of ecological production will contribute to the augmentation of biodiversity.

Threats

- Intensive economic activities, changes in land use and privatisation of land and forests in the areas that are most valuable in terms of natural resources and recreation will pose a threat to biodiversity unless appropriate legal protection measures are taken.
- Due to the lack of funding a gap between measures to conserve landscape and biodiversity provided for in the legal acts and practical actions may become wider.

Conclusions

The areas of regulation of the UN Convention of Biological Diversity (UNCBD) are comprehensively regulated by the national legislation. The Action Plan of the Biological Diversity Strategy was prepared for the period of 1998–2002. When drafting the National Strategy for Sustainable Development (2003), the most important strategic provisions within the area of landscape and biological diversity were included, however, the actual Plan of the Measures for Conservation of Biological Diversity is not available. The Programme of the Government of the Republic of Lithuania 2004–2008 foresees that by the 3rd quarter of 2008 the Biological Diversity Study has to be prepared and the Strategy for the Conservation of Biological Diversity has to be reviewed.

National Legal Framework of the Convention

CBD provisions are also established by other conventions ratified by the Republic of Lithuania, such as the Gdansk Convention (1992) Ramsar Convention (1993), Bern Convention (1996), Washington Convention – CITES (2001), Bonn Convention (2001) as well as by the European Bat Agreement, the EU Birds Directive, Habitats Directive, etc.

Important areas identified in the CBD are defined by the:

General strategic documents:

- National Long-Term Development Strategy (2002)
- National Sustainable Development Strategy (2003)

Related sectoral strategies:

- Action Plan of the National Environmental Protection Strategy (1996)
- Agriculture and Rural Development Strategy (2000)

Special strategies:

- Strategy for Conservation of Biodiversity (1998)



- Lithuanian Forestry Policy and Strategy for Its Implementation (2002)
- Strategic Plan of the Ministry of Environment for 2005-2007⁶
- Strategic Plan of the Ministry of Agriculture for 2005-2007⁷

Implementation of the objectives and tasks identified in the CBD are regulated by the following **laws** of the Republic of Lithuania:

- Law on Environmental Protection (1992, latest edition 2005)
- Law on Environmental Monitoring (1997, latest edition 2003)
- Law on Plant Protection (1995, latest edition 2001)
- Law on National Plant Genetic Resources (2001)
- Law on Genetically Modified Organisms (2001, latest edition 2003)
- Law on Animal Care, Keeping and Use (1997)
- Law on Wild Flora (1999, relevant edition 2004)
- Law on Wild Fauna (1997, latest edition 2005)
- Law on Hunting (2002, latest edition 2005)
- Law on Amateur Fishing (2004)
- Law on Forests (1994, latest edition 2005)
- Law on Environmental Impact Assessment for Planned Economic Activities (1996, latest edition 2005)
- Law on Protected Animals, Plants, Fungi and Populations (1997, latest edition 2001)
- Law on Protected Territories (1993, latest edition 2001)
- Law on Territorial Planning (1995, latest edition 2004)
- Law on Agriculture and Rural Development (2002)
- Law on Fisheries (2000, latest edition 2004)

National Long-Term Development

The National Long-Term Development Strategy defines a vision of the Lithuanian state including the following statement: "Environmental protection factors will secure sustainable development of the country harmonised with programme objectives in the areas of protection of air and water environment, the Baltic Sea and the Curonian Lagoon and of waste management, with Lithuania's international obligations and EU standards as well as with the country's economic potential."

Long-term priorities of the country's development and lines of their implementation include aspects of protection of natural resources, landscape and biodiversity:

- in the field of the system of protected territories: "to develop the system of protected territories; improve management of the system of protected territories; to form favourable public opinion towards protected territories and their tasks";
- in the field of the use of natural resources and protection: "...to use and protect natural resources."

National Sustainable Development Strategy

The National Sustainable Development Strategy identifies CBD-related priorities such as better protection of biodiversity and better protection and rational management of landscape.

⁶ Strategic Plan of the Ministry of Environment 2005-2007, www.am.lt.

⁷ Strategic Plan of the Ministry of Agriculture for 2005-2007, www.zum.lt



The strategy sets out key tasks and measures of their implementation under the following objectives:

“148. Long-term objectives – to conserve the country’s landscape and biological diversity, values of natural and cultural heritage, promote restoration of damaged natural elements and ensure rational use of landscape and biodiversity.”

“151. Medium-term objectives – to develop a modern system of protection and use of landscape, biological diversity and cultural heritage in line with Lithuania’s national interests and EU requirements.”

“154. Short-term objectives – to identify the main trends of changes in landscape and biodiversity, create legal, economic and institutional conditions for the conservation and use of biodiversity, and use it as well as natural and cultural heritage according to the principles of sustainability.”

National Environmental Strategy and Action Programme

Conservation of landscape and biodiversity is separated out as one of the key components in the National Environmental Strategy. The action plan for the implementation of the strategy covers the period of 1996-2000. The most important strategic provisions and tasks related to landscape and biodiversity were incorporated in the National Sustainable Development Strategy approved in 2003.

Long-term objectives in the field of conservation of landscape and biodiversity formulated in the National Sustainable Development Strategy:

“149.1. to preserve the specific features and diversity of landscape and biological diversity of ethnographic regions of the country, to ensure rational use thereof;

149.2. to conserve the network and natural framework of protected territories, to harmonise them with the European ecological networks, to increase the area of Lithuania’s protected territories up to 14%-18% of the total area of Lithuania;

149.3. to make protected areas more open to the public, to disseminate information about both the significance and objectives of protected areas;

149.4. to increase Lithuania’s forest area by 3%-5%, to increase areas of other natural perennial flora;

149.5. to increase the ecological stability of agrarian landscape, to reduce the negative impact of agricultural activities upon biodiversity;

149.6. to improve the protection of cultural values and use them more rationally;

149.7. to enhance the protection of the biodiversity of the seacoast area and marine ecosystems, to harmonise the protection and rational use for social purposes;

149.8. to ensure the protection of the natural hydrographical network and water ecosystems;

149.9. to ensure the ecological stability of the karstic region and other vulnerable territories;

149.10. to ensure the protection and rational use of recreational resources;

149.11. to promote speedier rehabilitation of damaged territories;

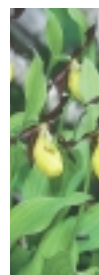
149.12. to protect and augment natural territories of urban landscape and historical green areas.

Agriculture and Rural Development Strategy

The Agriculture and Rural Development Strategy identifies key lines of development of agriculture and rural areas for 2000-2006 as well as agricultural and rural development objectives, principles and priorities. Objectives of the strategy related to the CBD are as follows:

4. Environmental protection, ecological farming that promotes biodiversity and landscape.

7. An effective system of agricultural science, consulting and education, closely related to production.



Strategy for Conservation of Biodiversity

Lithuania has undertaken, under the provisions of the CBD, to prepare a study, a strategy and an action plan in the area of biodiversity. The Strategy for Conservation of Biodiversity has been prepared for a 20-year period; it was approved by the order of the Minister of Environment and the Minister of Agriculture and Forestry in 1998. The Strategy contains an overview of current status and trends and a description of strategic provisions in line with the CBD areas. An action plan and guidelines for its implementation have been prepared.

The document outlines actions for the period 1998-2002. The National Sustainable Development Strategy approved in 2003 incorporates key strategic provisions in the area of landscape and biological diversity. The Programme of the Government of the Republic of Lithuania for 2004-2008 provides for the completion of the Biodiversity Study and for updating of the Strategy for Conservation of Biodiversity by the 3rd Quarter 2008.

National Forestry Policy and Strategy for Its Implementation

The National Forestry Policy and Strategy is based on the principle of compliance with the national legal framework and international treaties; in its formulation, account was taken of the provisions of the CBD. Four strands have been identified in the Lithuanian forestry policy: general, economic, ecological and social.

Strategic objectives of forestry development that are important in the context of the CBD are as follows:

- Ensuring the sustainability of forest ecosystems;
- Conservation of biodiversity and promoting healthy forests;
- Conservation and augmentation of forest resources;
- Involvement of the public in the resolution of key forestry-related issues;
- Public awareness in the area of the status and management of forests;
- Development of forest science and education.

Strategic Plan of the Ministry of Environment

The Strategic Plan of the Ministry of Environment for 2005-2007 sets out a strategic objective "to ensure rational use and further augmentation of natural resources (including forests), to conserve biodiversity, values of natural heritage, and specific features of landscape."

Strategic Plan of the Ministry of Agriculture

A strategic objective "to encourage farming that promotes environmental protection, biodiversity and landscape."

Laws of the Republic of Lithuania

CBD areas regulated by the Lithuanian laws are presented below, listed by CBD objectives and tasks.

Ensuring conservation of biodiversity

- Formulate and implement the principles of establishment and management of protected areas and develop a system for the conservation of biological diversity:

Law on Environmental Protection (Article 6, 12), Law on National Plant Genetic Resources (Article 1, 8, 9), Law on Wild Flora (Article 1, 4, 12), Law on Wild Fauna (Article 1, 4), Law on Hunting (Article 7, 8), Law on Forests (Article 1, 3, 5, 8, 14, 16), Law on Protected Animals, Plants, Fungi and Populations (Article 1, 3, 4, 6, 11, 13), Law on Protected Territories (Article 1, 3, 4, 6, 8, 10, 12, 21, 23, 25, 27, 28), Law on Territorial Planning (Article 3, 7).



- Ensure protection and appropriate use of biological diversity outside protected areas:
Law on Environmental Protection (Article 1, 6, 8, 9, 10), Law on Wild Flora (Article 1, 3, 4), Law on Wild Fauna (Article 1, 4), Law on Hunting (Article 1, 8), Law on Forests (Article 1, 5, 6, 14, 16–21), Law on Protected Animals, Plants, Fungi and Populations (Article 1, 3, 4, 6, 9, 11, 14, 18), Law on Agriculture and Rural Development (Article 14), Law on Fisheries (Article 1, 10, 15).
- Restore degrading ecosystems and recover (rehabilitate) threatened species:
Law on National Plant Genetic Resources (Article 13, 15) Law on Wild Flora (Article 1, 3, 4), Law on Wild Fauna (Article 1, 4, 6), Law on Forests (Article 1, 3, 5, 15), Law on Protected Animals, Plants, Fungi and Populations (Article 1, 4), Law on Protected Territories (Article 9, 12, 16), Law on Fisheries (Article 1).
- Create and implement measures to control and manage entry and presence of alien species in the natural environment:
Law on Plant Protection (Article 5), Law on Wild Flora (Article 6), Law on Wild Fauna (Article 4, 7, 10).
- Develop measures and procedures to prevent and assess the negative impact of plans, programmes, projects and policies upon biological diversity, ensuring the involvement of the public:
Law on Environmental Protection (Article 6, 7, 8, 15, 26, 27), Law on Wild Flora (Article 3, 5), Law on Wild Fauna (Article 4, 5), Law on Environmental Impact Assessment for Planned Economic Activities (Article 1, 4, 6, 13), Law on Protected Territories (Article 19), Law on Fisheries (Article 15).
- Develop and implement a system of measures to breed, restore (rehabilitate) and reintroduce local threatened species:
Law on Environmental Protection (Article 6), Law on Wild Flora (Article 1, 3, 4), Law on Wild Fauna (Article 4, 6, 7, 10), Law on Protected Animals, Plants, Fungi and Populations (Article 1, 4, 11, 16), Law on Fisheries (Article 1).
- Manage the collection of biological resources for the purpose of keeping or breeding them in captivity:
Law on Environmental Protection (Article 2, 6, 14), Law on the Care, Keeping and Use of Animals (Article 12, 13), Law on Wild Flora (Article 14, 16), Law on Wild Fauna (Article 4, 15–18), Law on Hunting (Article 5), Law on Forests (Article 5), Law on Protected Animals, Plants, Fungi and Populations (Article 4).

Sustainable use of different components of biodiversity:

- Develop a system of measures to ensure sustainable use of biological resources:
Law on Environmental Protection (Article 2, 4, 14, 31), Law on National Plant Genetic Resources (Article 15), Law on Wild Flora (Article 1, 3, 18), Law on Wild Fauna (Article 1, 4, 13, 14, 15, 20, 21), Law on Hunting (Article 1, 4, 8, 9, 12, 14), Law on Amateur Fishing (Article 12), Law on Forests (Article 1, 9, 24), Law on Protected Territories (Article 3, 16), Law on Territorial Planning (Article 3, 7, 13), Law on Fisheries (Article 1, 10, 11, 14).
- Encourage the public to augment and use biological resources in traditional ways and to restore resources at places where they have been destroyed:
Law on Environmental Protection (Article 2, 4, 29, 32), Law on Wild Flora (Article 1, 4), Law on Wild Fauna (Article 4, 10), Law on Hunting (Article 5, 12), Law on Forests (Article 1), Law on Protected Territories (Article 9, 13).
- Encourage cooperation between public and private sectors in the area of the use of biological resources:



Law on Wild Flora (Article 4), Law on Hunting (Article 5, 8, 12, 14), Law on Fisheries (Article 5, 14).

- Develop measures to mitigate the negative impact upon biological resources:

Law on Environmental Protection (Article 4, 14, 16, 19, 31, 321), Law on National Plant Genetic Resources (Article 15), Law on Wild Flora (Article 3, 4), Law on Wild Fauna (Article 4, 5, 19), Law on Hunting (Article 9), Law on Amateur Fishing (Article 12), Law on Forests (Article 6, 9, 18-21), Law on Protected Territories (Article 19, 22), Law on Agriculture and Rural Development (Article 14), Law on Fisheries (Article 10, 14, 15).

Appropriate use of and ensuring access to genetic resources:

- Develop a national legal and administrative system of measures for using and controlling genetic resources:

Law on Environmental Protection (Article 2), Law on National Plant Genetic Resources (Article 1, 4, 5, 9, 12, 14, 15, 16, 18), Law on Wild Flora (Article 1, 3), Law on Wild Fauna (Article 4, 7, 16), Law on Protected Territories (Article 8, 16).

- Ensure access to and supply, under bilateral agreements, genetic resources to other countries in order to implement the objectives set out in the Convention:

Law on National Plant Genetic Resources (Article 1, 4, 12, 14, 18), Law on Wild Fauna (Article 4).

- Conduct research in the field of genetic resources and develop co-operation between the Contracting Parties to the Convention:

Law on National Plant Genetic Resources (Article 5, 7, 12, 18), Law on Wild Fauna (Article 4).

Control of modified organisms, management of and ensuring access to biotechnologies:

- Develop legal and administrative measures enabling to develop, manage and transfer biotechnologies and to retain copyright of the technologies:

Law on Environmental Protection (Article 22(1)), Law on Plant Protection (Article 1, 3, 6, 7, 9), Law on Genetically Modified Organisms (Article 1, 3-11, 14).

- Ensure that access to and transfer of biotechnologies is in line with the objectives of protection and sustainable use of biodiversity laid down in the Convention, without significant impact upon the environment:

Law on Environmental Protection (Article 6, 7), Law on Genetically Modified Organisms (Article 3 - 8, 10, 11), Law on Wild Flora (Article 5).

- Provide information about the modified organisms' use, safety and potential negative impact upon the environment in the states into which they have been introduced:

Law on Genetically Modified Organisms (Article 4, 8, 10, 12).

Conclusions

The provisions of the Strategy for the Conservation of Landscape and Biological Diversity were included into the National Long-Term Development Strategy (2002), National Strategy for Sustainable Development (2003), and Agriculture and Rural Development Strategy (2000).



Financial Support for Implementation Measures

The Action Plan of the Strategy for Conservation of Biodiversity (1998) states just an estimated amount of funding necessary for the implementation of the plan. However, activities under the CBD have been integrated into the national strategies and related implementation measures as well as projects financed by donors, both bilateral and multilateral.

Activities aimed at implementation of the CBD areas in Lithuania are defined in the following legal acts:

- Programme of the Government of the Republic of Lithuania for 2004-2008
- Single Programming Document of Lithuania for 2004-2006
- Rural Development Plan for 2004-2006

Programme of the Government of the Republic of Lithuania for 2004-2008

The Programme provides for:

- Developing programmes and measures for the planning of protected areas, putting in order most valuable heritage objects and restoration of damaged territories in parks and reserves. Creating conditions for the members of the public to visit protected areas, to prepare territorial planning documentation for protected areas and to implement the measures identified. Complete formation of the network of protected areas (Natura 2000).

Responsible institution: Ministry of Environment;

- Ensure sustainable development (restoration and use) of state forests.

Responsible institutions: Ministry of Environment, General Forestry Authority;

- Strengthen control of the GMO market.

Responsible institutions: Ministry of Environment, Ministry of Agriculture and Minister of Health.

Single Programming Document of Lithuania for 2004-2006

The SPD is the key strategic document governing implementation of national socio-economic development priorities, at the same time ensuring their balance and sustainable development of the country.

The SPD measure ***Improvement of Environment Quality and Prevention of Environmental Damage*** provides for the following CBD activities:

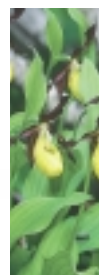
- To expand the network of protected areas NATURA 2000, to implement measures regarding protection and restoration of biodiversity and habitats.
- To educate the public on all levels through using media, audiovisual, modern IT and other means, to develop and introduce training programs, to encourage public participation in the environment protection process.

Rural Development Plan for 2004-2006

The plan has been prepared on the basis of the overall national development strategy described in the Single Programming Document.

Rural development measures related to the CBD:

- Areas that are disadvantaged in terms of farming and areas with environmental restrictions (Natura 2000 areas): overall objectives – “support farming in disadvantaged areas and preserve landscape” and “enforce environmental restrictions and ensure compliant farming in the areas with environmental restrictions” ;



- Agrarian environmental protection (the only compulsory measure): the aim of the landscape programme is to “preserve grasslands, natural and semi-natural ones in particular, and wetlands, maintain extensive farming systems in grasslands and lower farming intensity. The programme is important for the preservation of biodiversity, biotopes and both natural and semi-natural grasslands. Implementation of this programme will help conserve the entirety of species of living organisms, their habitats and genetic diversity”;
 - Aforestation of land of agricultural purpose: overall objective – help preserve the environment, maintain and augment biodiversity, and enrich landscape. Sustainable forestry is inseparable from maintaining and augmentation of biodiversity, fostering of landscape and conservation of cultural heritage;
 - Technical assistance: additional measures designed for increasing rural-dwellers’ awareness of new opportunities;
- Implementation of the first measure will be restricted to the specified disadvantaged areas approved together with the Rural Development Programme and in the set Natura 2000 areas; other measures are applied throughout Lithuania.

Projects

According to information on projects funded by both bilateral and multilateral donors provided on the websites of the Ministry of Environment, the Central Project Management Agency and the Global Environment Fund (<http://oracle.am.lt/pdb>, <http://www.cpma.lt>, www.undp.lt/sdp), 23 projects related to the CBD were implemented in 2000-2004.

Conclusions

The Action Plan of the Strategy for the Conservation of Biological Diversity (1998) indicated only the approximate implementation expenditure but the financial report was not prepared. The activities related to the UNCBD regulation areas are set forth in the Single Programming Document 2004-2006 and the Rural Development Plan 2004-2006.

Institutional Assessment

The **Ministry of Environment** is a body managing the implementation of the CBD. National Coordinator: Kristina Klovaitė, Chief Expert, Biological Diversity Division, Nature Protection Department.

Based on the legal acts mentioned above, CBD regulation areas are attributable on national-level institutions – the **Ministry of Environment** and the **Ministry of Agriculture of the Republic of Lithuania**.

The Commission on Conservation of Biodiversity (formed by Resolution of the Government No. 1395 of 13 December 1999) is a standing public body that advises the Government and the Ministry of Environment in resolving the issues of protection and management of biodiversity. Purposes of the Commission:

- to promote research of biodiversity in Lithuania, analyse its condition, make assessments, promote the use and protection of resources, make recommendations on the protection and use of biodiversity to state and municipal institutions;
- to contribute to the implementation of the Strategy for Conservation of Biodiversity and the Related Action Plan and of the provisions of the CBD.



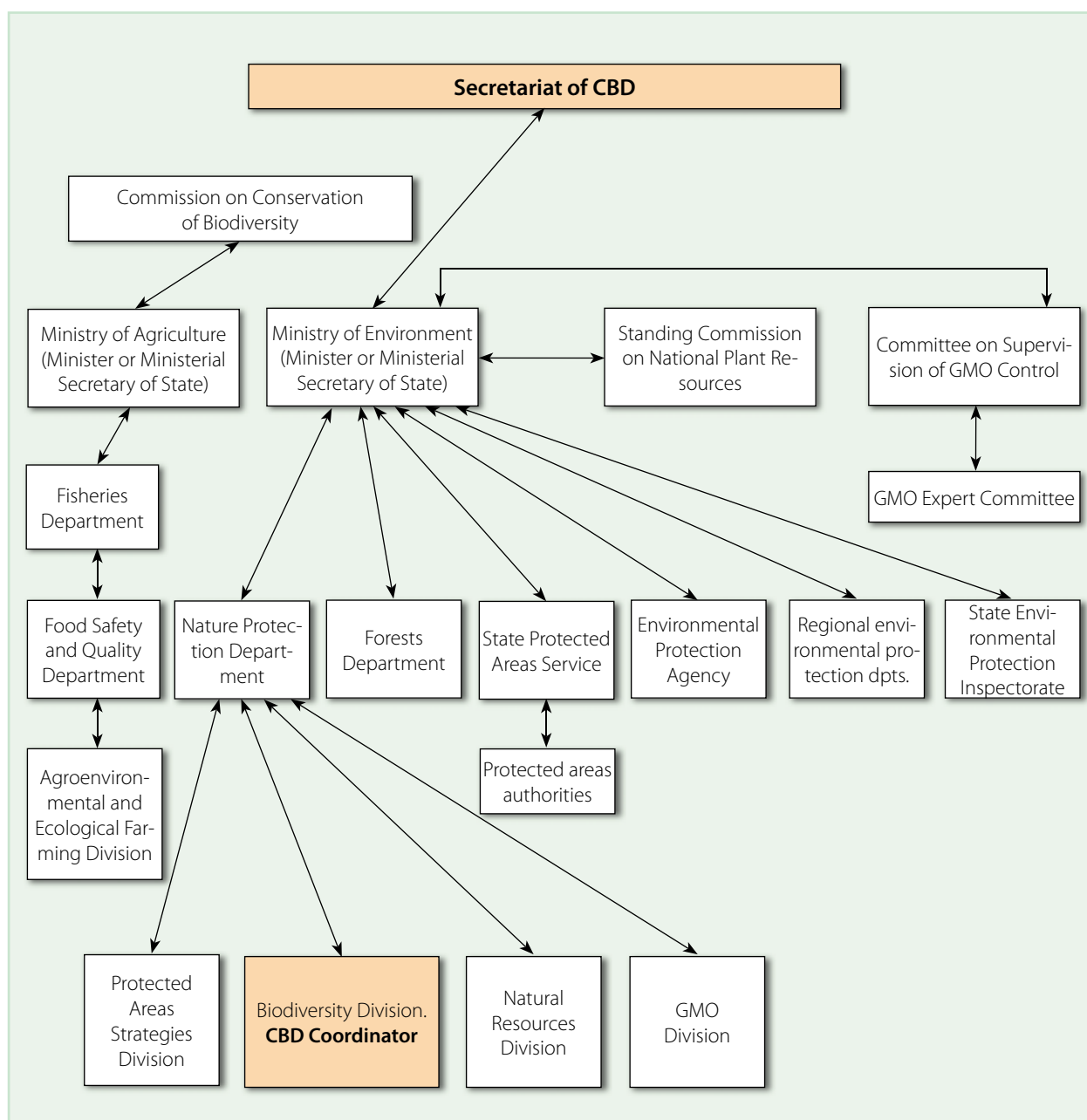
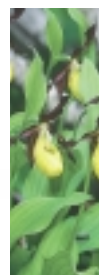


Chart of CBD Implementation

The Standing Commission on National Plant Genetic Resources (formed by Order of the Minister of Environment No. D1-243 of 11 May 2005) is an advisory body responsible for making proposals to the Ministry of Environment for policies and strategies concerning the national genetic resources of plants.

The Council on Control of Alien Species (formed by Order of the Minister of Environment No. 352 of 1 July 2002) is a standing advisory body responsible for making proposals to the Ministry of Environment concerning prevention and management of alien species.

The Committee for Supervision over GMO Management (formed by Order of the Minister of Environment No. 127 of 20 March 2003) is an advisory body that considers GMO policy issues and makes proposals to ministries, government and other institutions for the drafting and implementation of legal documents and programmes in this area. The Committee is responsible for the initiation of harmonisation of environmental, health and agricultural programmes and strategies as well as legal acts



regulating development of biotechnologies in order to ensure appropriate management of GMOs, economic growth and rational use of natural resources.

The GMO Experts Committee (formed by Order of the Minister of Environment No. 198 of 25 April 2003) considers reports on risk assessment and monitoring plans and submits proposals and recommendations to the Committee for Supervision over GMO Control on the assessment of risks posed by genetically modified organisms and products to human and animal health, environment and agriculture.

Ministry of Environment

Nature Protection Department

The Nature Protection Department is responsible for the formulation and implementation of policies and strategies in the area of biodiversity conservation and protected areas. Responsibilities related to CBD regulation areas have been assigned to four divisions of the department: Biological Diversity, Protected Area Strategies, Natural Resources and Genetically Modified Organisms.

In accordance with its regulations **the Biodiversity Division** is responsible for:

- formulation of policies and strategies in the area of biodiversity;
- coordination of implementation of requirements laid down in the Birds and Habitats Directives in the area of biodiversity;
- coordination of biodiversity protection programmes, drafting of implementation measures and coordination of implementation of measures;
- organising and supervising work in the area of rare and endangered plants, fungi and animals.

In accordance with its regulations **the Natural Resources Division** is responsible for:

- ensuring rational use, restoration, augmentation and protection of natural resources;
- ensuring sustainable use of national genetic resources, protecting them against devastation, decline or destruction;
- taking part in the performance of fish resources protection functions;
- formulating procedures for the introduction, reintroduction and transfer of animals, plants, fungi and other organisms;
- establishing the procedure of the use, protection and control of natural resources as well as the limits and conditions of their use and the procedure for the issue of permits;
- implementing state regulation of use and protection of national genetic resources of plants;
- regulating the use, protection and restoration of wild flora resources;
- drafting laws, resolutions of the Government, other legal acts and regulations in the area of use, protection and restoration of natural resources and sustainable use of the Baltic Sea coast.

In accordance with its regulations **the Protected Areas Strategy Division** is responsible for:

- formulation and coordination of policies and strategies for protected areas;
- development of a system of protected areas in order to conserve biodiversity;
- preparation and assessment of projects on the establishment of protected areas;
- drafting legal acts on the formulation of criteria for the establishment of protected areas designed for conservation of biodiversity;
- drafting documents regulating the use of hunted animal resources.



In accordance with its regulations the **GMO Division** is responsible for:

- formulation and implementation of policies for the safe use of genetically modified organisms/products;
- ensuring safe use of genetically modified organisms/products;
- issuing certificates and permits to use genetically modified organisms/products;
- developing, systemising and updating an information system for the use of genetically modified organisms/products and using the system;
- drafting laws, resolutions, other legal acts and regulations in the area of genetically modified organisms/products.

Environmental Protection Agency

The Environmental Protection Agency ensures uninterrupted and comprehensive monitoring of the quality of the environment and the use of natural resources, objective evaluation of findings, which assists the authorities in implementing their functions and resolving problems on the basis of available information. The EPA is responsible for the performance of the following functions:

- making proposals for the formulation and implementation of environmental policies;
- co-ordinating the process of environmental impact assessment with respect to planned economic activities;
- formulating conclusions of pollution and other environmental impacts produced by economic entities.

Regional Environmental Protection Departments

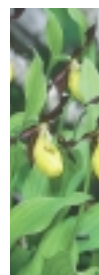
Regional environmental protection departments are responsible for:

- state control over the use, restoration and protection of fauna, flora and other natural resources;
- participation in special-purpose environmental protection and natural resource use programmes in the region, exercising control over the programme implementation within the scope of their competence;
- control over the maintenance of protected areas;
- coordinating the EIA process;
- issuing permits to use natural resources;
- issuing permits for fishing in public water bodies.

State Protected Areas Service

The State Protected Areas Service performs the following functions related to the CBD regulation areas:

- implementing the strategy for protected areas, organising the protection and management of protected areas;
- participating in the formation of the protected areas' system;
- organising and coordinating biodiversity conservation activities;
- preparing special-purpose programmes for the management of protected areas, coordinating and controlling implementation of these areas;
- exercising control over the enforcement of conditions for the protection and use of protected areas and over the conditions of biodiversity.



Protected area directorates are responsible for the coordination of territorial management plans and investigations and for the control and monitoring of biodiversity.

Forestry Department

The purpose of the Forestry Department is to formulate forestry policy and strategy and to organise and co-ordinate its implementation. The task “to achieve that forests are managed according to the sustainable forestry principle and that <...> the ecosystems and biodiversity of forests are preserved.”

State Environmental Protection Inspectorate

The State Environmental Protection Inspectorate performs the following functions:

- coordinating and supervising the control of compliance with conditions and limits set in the permits to use natural resources;
- taking part in the preparation of <...> programmes and projects on the use of natural resources;
- making proposals to the Ministry of Environment on the rational use of forests;
- accumulating, systematising and analysing information on pollution and other environmental impacts by economic entities with the greatest pollution/impact levels and on measures implemented by these entities in order to improve the conditions of the environment; making proposals for increasing the efficiency of such measures.

Ministry of Agriculture

Food Safety and Quality Department

The Food Safety and Quality Department implements the agro-environmental and ecological farming development strategies and programmes within the scope of its competence. These activities are the responsibility of the Agro-Environmental and Ecological Farming Division, which:

- formulates public policies in the agro-environmental and ecological farming areas;
- formulates and implements policies for the application of research and better technologies in the agro-environmental and ecological farming areas;
- develops programmes for the introduction of environmental measures to agriculture and for the development of ecological farming and manages their implementation;
- drafts laws and other legal acts necessary for the implementation of the agro-environmental and ecological farming policies.

Furthermore, the department takes part in the assessment of GMO impact upon agriculture in drafting the national position concerning GMOs and their products; however, these activities have not been defined in the department regulations.

Fisheries Department

The Fisheries Department under the Ministry of Agriculture implements public policies in the area of fisheries; drafts strategies, legal acts and regulations and development programmes aimed at the restoration of fish resources; exercises supervision over implementation of these programmes.

Municipalities

In accordance with the Law on Protected Areas municipal councils may establish municipal reserves and publish a list of municipal heritage objects (Article 23), with the mayors being responsible for organisation



of the protection and management of protected areas established by municipalities (Article 27).

In order to determine local authorities' contribution to the implementation of the CBD, 22 out of 60 Lithuanian municipalities were surveyed including 5 town and 17 district municipalities; this ratio corresponds to the ratio of municipalities of this type in Lithuania.

Local authorities are active in two areas regulated by the CBD: ensuring conservation of biodiversity and sustainable use of components of biodiversity. Chief specialists of environmental, territorial planning or economic divisions are normally in charge of these areas. Regulations of these divisions usually state that the division "makes proposals for the preservation of valuable natural and landscape objects and for the establishment of protected areas"; "organises studies into biodiversity and prepares conservation programmes"; examines issues of the use and protection of natural resources."

The local authorities indicated environmental protection departments and agencies as other institutions with which co-operation ties are maintained most often.

Non-governmental Organisations

In order to determine the contribution of NGOs to the implementation of the CBD, questionnaires were distributed to environmental organisations registered with the database of the Baltic Environmental Forum. Forty questionnaires were sent and 14 filled in questionnaires were received. Nine organisations defined themselves as ones contributing to implementation of the CBD. The majority of NGOs define their activities as "raising public awareness and information activities aimed at schoolchildren", 5 – "implementing practical measures" and 2 – "research".

Other Institutions

Plant Gene Bank

The Plant Gene Bank is an institution funded from the state budget that coordinates work related to the preservation and investigation of natural resources and stores plant genetic material. Plant genetic material is selected for preservation by academic establishments or institutions authorised by the Government as well as institutions implementing measures related to accumulation, investigation and protection of national plant genetic resources.

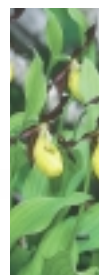
Animal Breeding Institute of the Lithuanian Veterinary Academy

The Animal Breeding Institute of the Lithuanian Veterinary Academy accumulates, investigates, stores and distributes genetic resources of agricultural animals and formulates methodologies for their assessment and use.

Management of Information

The Nature Protection Department of the Ministry of Environment is responsible for submitting reports and information to the EU institutions and secretariats of conventions on:

- permits issued for economic activities and exceptions granted including compensation measures in the protected areas;
- results of assessment of species reintroduction;
- exchange of information with other Member States for the purpose of co-ordinating investigations;
- practical application of hunting rules and cases where animals of important species are caught or destroyed by accident;
- monitoring of trade in wild animals.



The State Veterinary Border and Transport Service is responsible for the control over importation and exportation of endangered wild flora and fauna species. The Service submits relevant information to the Nature Protection Department.

The Environmental Protection Agency is responsible for the coordination of state monitoring of biodiversity on a contractual basis. The data are accumulated in electronic format; reports are provided both in electronic and hardcopy format.

Regional environmental protection departments provide data on the practical application of fishing and hunting rules, on cases of accidental catching or destruction of species that are significant on the EU scale and on results of EIA.

The State Protected Areas Service is responsible for the accumulation and management of data that are needed for the implementation of the EU directives regulating protection of the living environment in the protected areas.

The **following information systems** are currently functioning or are under implementation in the Ministry of Environment and subordinate institutions:

- The State Cadastre Information System of Protected Areas (<http://stk.vstt.lt>). No biodiversity data are currently published.
- Natura 2000 areas and information on them has been compiled in the form of a GIS map (ArcView 3.x shape file). At present only preliminary data on numbers of species are available. No biodiversity data are currently published.
- The Wild Flora Resources Database includes information on the prevalence of wild plant and fungi species, areas, quantities, quality and use of wild flora areas, other attributes related to wild flora and its resources. Legal persons using wild flora resources (fungi, wild berries and fruit, medicinal herbs or their parts, canes, etc.)

Conclusions

While implementing the UNCBD the lack of action coordination between the Ministry of Environment and the Ministry of Agriculture is witnessed. The collaboration among public authorities and scientific institutions is insufficient; the applied researches do not use the budget allocations (state orders) that are in the disposition of the Ministry of Education and Science, there is no cooperation between the Convention coordinator and scientists who are responsible for the corresponding scientific programmes. There is a necessity to coordinate data systems that are compiled for various purposes, e.g. the State Cadastre of Protected Territories, Land Cadastre, and Biological Diversity Cadastre. The Social Commission for the Issues of the Conservation of Biological Diversity is not actually functioning. There are groups formed to coordinate the activity of individual regulation of the UNCBD (the Standing Commission on Plant National Genetic Resources, Invasive Species Control Council, Genetically Modified Organisms Management Surveillance Committee, Committee of Experts on Genetically Modified Organisms), however, there is a need for a systemic coordination of the implementation of the UNCBD.

Research and Development

In accordance with its regulations, the **Ministry of Environment** is responsible for the "organisation and coordination of research related to natural resources, their use and restoration and environmental protection; organisation of other applied research within the scope of its competence, funding and management of applied research programmes and projects, promotion of innovations" (p. 6.21 of Regulations).



The Ministry of Environment finances applied research out of the funds allotted to the Environment Protection Support Programme. Research is conducted both by institutions and individual experts. The assignments of commissioned research are formulated in line with strategic working plans and through consultations with investigators, specialists and employees of different institutions. Contractors are selected through public procurement procedures; reports are reviewed and (most often) assessed by ministerial experts.

The table below states research related to implementation of the CBD as well as relevant contractors:

Evaluation of <i>Orconectes limosus</i> , preparation of guidelines	Copyright agreement
Preparation of a programme for the restoration of fish and crawfish resources in the water bodies of national significance in 2006-2010	Copyright agreement
Expert evaluation of the total area of habitats of EU significance in Lithuania (excluding forests and grasslands) and of sizes of populations of species of EU significance in Lithuania	Botanical Institute

The Forestry Department of the Ministry of Environment finances applied research out of the special programme for funding of general forestry needs. The assignments of commissioned research are formulated through consultations with investigators, specialists and employees of different institutes, universities and institutions. Contractors are selected through public procurement procedures; reports are reviewed by independent experts.

The table below states research related to implementation of the CBD as well as relevant contractors:

Selection of forest trees meeting the national genetic resource requirements in parks and other green areas in the post-war period	Public Organisation "Žaliuojanti Vilnija"
Preparation of recommendations for identification of common birch and white birch as well as their hybrids	Lithuanian Forestry Institute
Preparation of a strategic project on integrated development of state forests for the period by 2010 identifying measures to improve the system of management, organisation and economic regulation of state forests	Lithuanian Agricultural University
Analysis of the system and programmes for the training and skills improvement for forestry specialists taking account of the principles of market economy and sustainable development of forestry and introduction of modern technologies in Lithuania and making proposals for improvement	Lithuanian Agricultural University
Formulation of methodologies for genetic-selectional assessment of test stands	Lithuanian Forestry Institute
Drafting of the National Forestry Policy and the Strategy for Its Implementation for the period by the year 2015	Lithuanian Agricultural University
Expert examination of legal acts regulating management of private forests and presentation of conclusions on improvement	Lithuanian Forestry Institute



Improvement of legal regulation of cultivation and growing of plantation stands	Lithuanian Agricultural University
Investigation into alien species <i>Heracleum sosnowskyi</i> and drafting of preventive measures	Institute of Botany

Ministry of Agriculture “organises state management of scientific technical progress, takes part in the formulation of lines and priorities of specialists’ training, consulting and skills improvement, directs financing and implementation of research programmes and projects, and promotes innovations (p. 6.27 of Regulations).”

The Ministry of Agriculture finances applied research from the Rural Support Programme (measure “Support for farmers’ education and consulting, research and organisation of international and national agricultural exhibitions, fairs and competitions”). The research is coordinated by the Research and Training Division of the Rural Development Department according to guidelines made by special commissions on supervision over applied research. Public invitations to tender are announced for the selection of contractors; tenders are evaluated by the aforesaid commissions.

An example of research work related to implementation of the CBD included by the Ministry in the funding plan under the Rural Development Programme – Investigation, Preservation and Development of Genetic Resources of Agricultural Plants; contractor: Lithuanian Institute of Farming.

Main fields of research implemented by Lithuanian institutions⁸ related to CBD areas are shown in the table (R&D areas in which the best results have been achieved are shown in parentheses):

Institute for Studies and Planning of the Baltic Sea Coast under Klaipėda University	<ul style="list-style-type: none"> Ecology and environmental science (Studies of alien species in the Baltic Sea region)
Faculty of Animal Husbandry Technologies of the Lithuanian Veterinary Academy	<ul style="list-style-type: none"> Studies of the Influence of Genetic and Other Factors for the Increase in Animal and Bird Productivity, Improvement of Product Quality and Preservation of the Environment Development and introduction of biotechnology, ecological and animal welfare measures for the development of animal husbandry, improvement of product quality and increasing the safety of food of animal origin (Studies of domestic animals genome)
Faculty of Forestry of the Lithuanian Agricultural University	<ul style="list-style-type: none"> Investigation of the condition of forest, water and field ecosystems (Modelling of forest resources dynamics and use, studies of improvement of sustainable and multipurpose forestry technologies)
Faculty of Natural Sciences of Vytautas Magnus University	(Investigation into changes and expression of genetic information and into the mechanism of regulation and adaptation of cell energy processes)
Botanical Garden of Vytautas Magnus University	(Accumulation, investigation and assessment of adapted and local genetic resources of plants utilised in Lithuania)
Faculty of Natural Sciences of Vilnius Pedagogical University	<ul style="list-style-type: none"> Functioning of biodiversity in the environment (Investigation and assessment of the gene fund of Lithuanian willows (<i>Salix</i> L.), selection of productive clones. Animal diversity in different ecosystems and biomes)
Faculty of Natural Sciences of Vilnius University	<ul style="list-style-type: none"> Fundamental and applied research in genomics and biotechnology Assessment of biodiversity, effect of the environment upon humans, and structure and dynamics of ecosystems using genomic methods (Genotoxicity of anthropogenic and natural factors)

⁸ Research and Development in Lithuania. Handbook. Ministry of Education and Science, 2004. [in Lithuanian]



Institute of Biochemistry	<ul style="list-style-type: none"> Investigation into gene structure and expression of microorganisms and regulation of cell metabolic systems
Institute of Biotechnology	<ul style="list-style-type: none"> Investigation into gene activity in yeast Molecular-genetic studies of the phenomenon of restriction modification (DNR modification studies)
Botanical Institute	<ul style="list-style-type: none"> Botanical diversity in Lithuania: identification and summarisation on population level Genetic and physiological framework of plant productivity: studies into opportunities for managing genetic and physiological processes determining growth and productivity Micobiota diversity in Lithuania: identification and characterisation on species level
Institute of Forestry	<ul style="list-style-type: none"> Studies into biodiversity and sustainability of forest ecosystems Studies into preservation of forest genetic resources and forest tree selection (Ecogenetic variation and preservation of genetic resources of deciduous tree species)
Lithuanian Institute for Horticulture	<ul style="list-style-type: none"> Development of the basics of plant biology and biotechnology, raising of garden plant species, investigation, preservation and enrichment of the relevant gene fund Development of biologically valuable products using garden plant biodiversity
Lithuanian Institute of Farming	<ul style="list-style-type: none"> Studies into plant genetics, biotechnology, physiology, biochemistry and selection; preservation and development of diversity of genetic resources
Institute of Cattle Breeding of the Lithuanian Veterinary Academy	<ul style="list-style-type: none"> Studies into animal genetics, reproductive biology and genetic resources Monitoring methods and systems for species and habitats of EU significance (EuMon)
Institute of Ecology under Vilnius University	<ul style="list-style-type: none"> Physiological and ethological mechanisms of animal population management and functions of parasite organisms in ecosystems
SICOR Biotech UAB private company	<ul style="list-style-type: none"> Studies in the fields of biochemistry, molecular biology, modern gene engineering, biosynthesis and production of biopharmaceuticals

Conclusions

With reference to the survey of scientific researches related to the implementation of the provisions of the UNCBD, it can be stated that Lithuania has enough competent expert institutions that implement scientific researches. Some applied scientific researches are initiated and financed by the Ministries of Environment and Agriculture. It has to be noted that the relations between the public authorities and scientists are insufficient, there is no cooperation between the coordinator of UNCBD and the managers of corresponding scientific programmes, the applied researches do not utilise the budget allocations that are in the disposition of the Ministry of Education and Science (state orders).



In-Service Training

Ministries

According to Regulations of the Ministry of Environment, it “coordinates and, within its scope of competence, <...> manages skills improvement and development of public servants and employees working in the areas falling within the scope of competence of the ministry” (p. 6.65 of Regulations).

According to Regulations of the Ministry of Agriculture, it “pursues a policy of building administrative capacities in order to implement the EU Common Agricultural Policy and to effectively use the EU assistance granted to agriculture” (p. 6.6 of Regulations).

As there has been no opportunity for objective evaluation of competences of the staff related to CBD implementation, they were evaluated indirectly based on the results of the staff self-analysis and the identified skills improvement needs.

To identify needs for skills improvement, a questionnaire was prepared for the staff surveying by a comprehensive method combining self-analysis and standardised interview. Competences necessary for an official were divided into two sections: general professional competences (necessary for a public servant of a certain grade irrespective of the area of activities of the division) and special competences (according to CBD regulation areas).

Both responsible officials and their superiors were surveyed on the assumption that the latter can evaluate skills improvement needs in a wider context taking account of the division’s strategic plans. In all, 14 officials related to CBD implementation and 6 superiors took part in the survey.

The surveyed employees assessed their general competencies as “good”, however, all of them noted that training to develop special competences was required. It should be noted that the need was also confirmed by their superiors. No employee gave a positive answer to the question as to the sufficiency of knowledge and experience to conduct training on the CBD areas themselves.

Municipalities

Representatives of 22 municipalities took part in a survey conducted by post. They were asked to assess their competences and skills improvement needs by filling in a self-analysis questionnaire, relating that to the implementation of all UN conventions covered by the project (no specific conventions were separated out as normally one municipal official is responsible for all conventions). The majority of respondents (47%) gave a mediocre assessment of their competence: “I have some experience”, 32% would like to improve their skills and only 21% are satisfied with their competence in the areas regulated by the convention.

While assessing skills improvement needs in the area of general competences, the officials mentioned capacity to formulate strategic provisions and programmes as well as programme implementation measures and involving stakeholders and the public into the discussion and adoption of decisions.

Non-governmental Organisations

Nine NGOs related to CBD implementation took part in the postal survey; their representatives were asked to assess their competences and skills improvement needs. Representatives of all the NGOs wish to improve their skills. Distinct from employees of state institutions, five persons from four NGOs stated that they were ready to lead workshops on different subjects.



Conclusions

With regard to the analysis of qualification development programmes of accredited civil servants it can be stated that the training intended for the development of general management skills predominate. There are no specialized programmes on the topics related to the UNCBD in the catalogue of Public Service. Joint seminars, systematic collaboration of scientists and authorities would contribute to their qualification development. Moreover, it is highly recommended to involve the representatives of NGOs and other target groups into the training.

Public Information and Awareness Raising

The Strategy for Conservation of Biodiversity and the Related Action Plan contain information, training and educational measures. This is mainly preparation of different publications and video materials; various institutions were charged with the responsibility for these measures. There has been no general report on progress in the implementation of these measures.

In accordance with its Regulations, the Ministry of Environment “coordinates and organises, within the scope of its competence, public awareness and education activities <...>” (p. 6.65 of Regulations).

The strategy of the Public Awareness and Public Relations Department state that “Information related to the implementation of environmental quality measures and measures to preserve natural resources, landscape and biodiversity, territorial planning, housing and construction will be provided to the public and the formal education system. <...>. Environmental education and information has been integrated into legal acts governing environmental protection.”

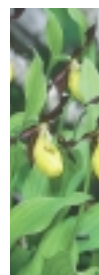
Information related to biodiversity is presented in annual reviews Condition of the Environment. The Ministry of Environment has published eight journals “Raudoni Lapai” (Red Leaves) containing reports on locations of species included in the Red Book found, observed or evaluated by Lithuanian naturalists.

One of the tasks of integrated protected areas such as national and regional parks is to develop cognitive tourism and environmental awareness and to inform the Lithuanian public about protected natural values. A “natural” information system is being developed comprising information stands, pointers, overview grounds, websites are created, and visitors’ centres are established.

The Ministry of Agriculture “informs the public about activities of the Ministry and prepares overviews of the latest developments in the area of CAP and other EU matters related to land, food, fisheries” (p. 6.48 of Regulations). Furthermore, the Ministry “organises skills improvement for farmers and agricultural specialists, takes part, within the scope of its competence, in the formulation of skills improvement programmes for pedagogues of agricultural schools and colleges” (p. 6.28).

According to the data provided by the Ministry of Agriculture, CBD-related activities in the field of public awareness and education include:

- ensuring appropriate use of and access to genetic resources – representatives of research, public, state and other organisations participating in the Commission on Coordination of Genetic Resources (formed in 2003) receive and disseminate relevant information, the website of the Lithuanian Veterinary Academy www.lva.lt/lggi publishes information about rare animal species in Lithuania and other information related to animal genetic resources;
- control of GMOs, management of and access to biotechnologies – since 2001, the Quality Division of the Food Safety and Quality Department publishes, on a periodic basis, information on legal acts related to the use of GMO in agriculture in such periodicals as “Mano



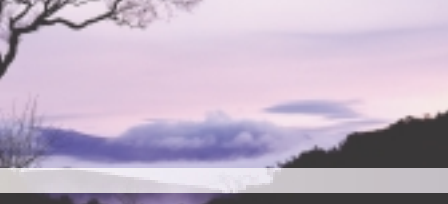
Ūkis", "Ūkininko Patarėjas", "Verslo Žinios", "Kauno Diena" etc., since 03-11-2004, information on Lithuania's position with respect to GMOs is published on the ministerial website;

- After having completed biodiversity research within their territories, local authorities usually prepare illustrated publications of various sizes.

Conclusions

Strategy and the Action Plan for the Conservation of Biological Diversity of the Republic of Lithuania provided for information, teaching and education means; these mostly included various publications and visual material. Various institutions were responsible for the implementation of these means. However, the general report on how and on what scale these measures had been implemented was not prepared. Ministries, municipalities and NGOs have implemented quite a large number of public information and education means on the issues of biological diversity. The input of the Directorates of protected territories is worth mentioning. Their contribution was considerable in informing about the protected nature and historical values, landscape and biological diversity, possibilities to get acquainted with the aims of protected territories as well as specific objects.

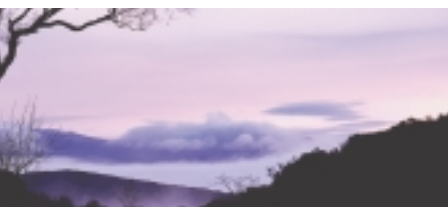




UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

Thematic Assessment Report





Ratification and Current Status of the Convention

The Republic of Lithuania joined the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 in Rio de Janeiro at the United Nations Conference on Environment and Development and in 1998 it joined the Kyoto Protocol. The Parliament of the Republic of Lithuania ratified the UNFCCC on 23 February 1995 by adopting Resolution No. I-813 and the Kyoto Protocol on 19 November 2002 by adopting Law No. IX-1203.

Areas Regulated by the Convention

Having ratified the Kyoto Protocol the Republic of Lithuania undertook obligations to reduce the emissions of greenhouse gases by 8 % by 2008-2012 as compared to 1990. Also, implementing the Convention requirements Lithuania undertook to submit national reports providing information about the forecasted effects of climate change and the significance thereof for the development of the country, assessing information needs, giving the inventory of greenhouse gases in accordance with the methodology of the Intergovernmental Panel on Climate Change (IPCC), providing for measures to mitigate climate change, projecting emissions of greenhouse gases and capacities of their absorbents, effect on the ecosystem and biological diversity, listing programmes on monitoring and science, public education and awareness raising.

Assessment of Current Status

After 1990, following the reduction in fossil fuel burning due to the economic depression during the transition period, emissions of greenhouse gases decreased more than two times. Decrease in the use of fossil fuel continued until 1993⁹. From 1990-1998 emissions of greenhouse gases in CO₂ equivalent decreased by 3,574 Gg every year¹⁰. With increased energy consumption, quantities of greenhouse gas did not increase, which was determined by the increased production of electricity using nuclear fuel, implemented energy-saving measures, and development of renewable resources. For example, in 2001-2002 emissions of greenhouse gases decreased by 349 Gg in CO₂ equivalent.

The Cooperation Programme in the Baltic Sea Region (BSR) in the power engineering sector was implemented in 1999. The Programme was approved by representatives of the BSR countries in Stavanger at the Conference of Ministers of Economy held on 1 December 1998. The Programme seeks to strengthen cooperation focusing on the implementation of the Kyoto Protocol requirements, trading in transferable pollution allowances, and implementation of projects of general implementation activities¹¹.

Since 1993, in the implementation of the Kyoto Protocol, Lithuania has realised 22 Jointly Implemented Activities whose main purpose has been to increase energy effectiveness and use of local fuel ensuring lower emissions of CO₂.

In 2003, the European Parliament and the Council adopted Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community. Pursuant to the Directive, no company of the established economic branches of the EU Member States could emit more CO₂ than it had transferable pollution allowances. In accordance with the National Plan of Allocation of Transferable Pollution Allowances for 2005-2007 (approved by the Order of the Minister of Environment of the Republic of Lithuania as of 27 December 2004) transferable pollution allowances are distributed to companies free of charge by the Lithuanian Environmental Investment Fund. This system is intended to ensure that companies would be interested in investing into use of renewable

⁹ 2nd Baltic State of the Environment Report based on environmental indicators

¹⁰ National Greenhouse Gas Emission Inventory Report of the Republic of Lithuania (Reported Inventory 2002)

¹¹ Ibid

energy resources or energy efficiency measures because their investments would be covered by income received by selling excessive transferable pollution allowances. In addition, companies using renewable energy resources will not be obliged to pay CO₂ pollution fees to be introduced in the future. In 2005, transferable pollution allowances were provided to energy-generating facilities where the installed capacity exceeds 20 MW. In total, transferable pollution allowances are distributed among 93 facility operators in Lithuania.

Aiming to reducing the use of fossil fuel and pollution from mobile sources and promoting the use of renewable energy resources, on 31 March 2005 the Law on Supplement and Amendment to the Law on Pollution Fee was adopted stipulating a privilege for using biofuel. Pursuant to the Law, legal and natural persons using vehicles running on biofuel of the set standard are exempt from the fee.

To reduce air pollution by industrial enterprises, in 2004 a system of integrated pollution prevention and control permits (IPPC) in the European Union was introduced. According to the system the most polluting companies must implement the requirements of the best available technics.

Strengths

- The legal base is gradually developed to promote implementation of the best available technics in industrial enterprises, energy effectiveness, appropriation and use of renewable sources.
- Waste and sewage sludge management measures are implemented to reduce methane gas emissions into the air.
- Conditions are created for owners of abandoned land to receive support for afforestation of such land; forested areas are increasing.
- Greenhouse gas emissions from the transport sector decrease due to improving technologies in cars and the technical condition of roads, use of biological fuel and implementation of environmental requirements to fuel quality.

Weak nesses

- Remaining Soviet style technologies of companies determining consumption of natural resources 1.5-2 times more per unit of production as compared with the old EU Member States, measures to increase energy effectiveness in housing are implemented insufficiently.
- Due to the obsolete energy generation and transportation infrastructure significant energy losses are incurred.
- The infrastructure for bicycles and other motorless transport in cities is underdeveloped; many large cities in Lithuania do not have bypass roads and no measures to increase energy effectiveness in the transport sector and economic measures to promote the use of new technologies in transport are planned for.
- The problem of use of biodegradable waste, landfill gas and sewage sludge for energy production is not solved.
- There is no programme for the implementation of the UNFCCC and monitoring of effects of climate change. The National Environment Monitoring Programme evaluates indicators relating to the air quality but not to the effect of climate change on ecosystems.

Opportunities

- The system of integrated pollution prevention and control and trading in transferable pollution allowances for greenhouse gas emissions encourages industrial and energy enterprises to invest in technologies reducing greenhouse gas emissions.
- Rational use of the EU Cohesion and Structural Funds will allow renewing old technologies of energy and industrial enterprises and the infrastructure of heat and electricity supply; implementation of landfill modernisation and sewage management programmes will be completed and measures to reduce transport pollution are implemented (construction of bypass roads and bicycle paths).

Threats

- Without renovating technologies used by industrial and energy enterprises and closing down Ignalina Nuclear Power Plant in 2009, Lithuania may fail to implement the undertakings stipulated in the Kyoto Protocol to reduce greenhouse gas emissions by 8% as compared to 1990.
- Costs of investment into energy efficiency measures and renewable energy sources in Lithuania may be higher than in other EU Member States, which is why investors may be not interested in investing into programmes of renovation of Lithuanian industrial and energy enterprises.

Conclusions

The areas of regulation of the UN Framework Convention on Climate Changes (UNFCCC) are comprehensively regulated by the national legislation; the National Implementation Strategy was approved in 1996. The Programme of the Government of the Republic of Lithuania 2004–2008 establishes that by the 2nd quarter of 2008 the revised project of the National Implementation Strategy of the UNFCCC has to be prepared. The Ministries of Environment and Agriculture are responsible for it.

National Legal Framework of the Convention

The main goal of the UNFCCC implementation in Lithuania is to reduce greenhouse gas emissions by 8% as compared to 1990. Objectives and measures for the implementation of this goal are integrated into the following **national strategic documents**:

- National Long-Term Development Strategy (2002)
- National Sustainable Development Strategy (2003)

Strategies of related sectors:

- Environment Protection Strategy of Lithuania (1996)
- Long-Term Lithuanian Economy Development Strategy up to 2015 (2002)
- National Energy Strategy (2002)
- Medium-Term Industry Development Policy (2000)
- Long-Term Lithuanian Transport System Development Strategy up to 2025 (2005)
- Agricultural and Rural Development Strategy (2000)

Special strategies:

- National Strategy of the Implementation of the United Nations Framework Convention on Climate Change (1996)
- Forestry Policy of Lithuania and its Implementation Strategy (2002),
- National Strategic Waste Management Plan (2002).

The implementation of the UNFCCC goals and objectives is regulated by the following **laws** of the Republic of Lithuania:

- Law on Environmental Protection (1992, version in force – 2005)
- Law on Air Protection (1999)
- Law on Environmental Monitoring (1997, version in force – 2003)

- Law on Pollution Fee (1999, version in force – 2005)
- Law on Waste Management (1998, version in force – 2005)
- Law on Energy (2002, version in force – 2003)
- Law on Electricity (2000, version in force – 2004)
- Law on Heat Economy (2003)
- Law on Biological Fuel and Biological Oil (2000, version in force – 2004)
- Law on the Principles of the Activities of Transport (1991, version in force – 2005)
- Law on Motorless Transport (2000, version in force – 2003)
- Law on Agricultural and Rural Development (2002)
- Law on Forests (1994, version in force – 2005)
- Law on Local Self-Government (1994, version in force – 2005)

National Long-Term Development Strategy

The National Long-Term Development Strategy defines the vision of the Lithuanian State envisaging that “environment protection factors will ensure harmonious and sustainable development of Lithuania coordinated with programmed targets relating to air, water, biological diversity, protection of the Baltic Sea and the Curonian Lagoon and waste management, international undertakings and with the EU standards, as well as the economic capacities of the country.” The vision also provides that the future energy sector will be well-balanced and will not threaten the environment. The national policy in the field of rural and agricultural development will ensure equal development of economy, ecology and social aspects.

The strategy provides for long-term national development priorities related to the UNFCCC implementation:

Environmental priorities:

- to implement the sustainable development principle;
- to create prerequisites for the rational use, protection and renewal of natural resources;
- having regard for the EU norms and standards, to ensure proper quality of the environment;
- to increase the level of afforestation and the value of forest environment protection.

Energy development priorities:

- to modernise existing co-generation plants;
- given the high prices of organic fuel, to construct new large capacity power plants – a combined cycle gas turbine plant and new thermal plants.

National Sustainable Development Strategy

The following objectives related to the UNFCCC are set up in the National Sustainable Development Strategy:

- reduction of the effects of the major economic branches (transport, industry, energy, agriculture, housing, tourism) on the environment;
- more effective use of natural resources and waste management;
- mitigation of the global climate change and the consequences thereof.

The strategy provides for important goals of different terms by sectors.

Air Quality Improvement

“130. Long-term goals are to improve the system of air quality assessment and management with a

view to ensuring air quality not dangerous for human health and in line with the EU requirements all over the country's territory; to ensure that the quantities of pollutants and greenhouse gases released into the atmosphere would be increasing twice as slowly as production and services are growing."

"133. Medium-term goals are properly using state and private funds and the EU support, to ensure that after the decommissioning of Ignalina NPP as provided for in international conventions and protocols and the EU Treaty of Accession, the effect of pollutants and greenhouse gases released into the atmosphere would be limited."

"136. Short-term goals are to complete the drafting of the legal and information base, to strengthen the institutional capacities needed to achieve the purposes of the Strategy related to air quality."

Waste Management

"157. Long-term goals are to create an environmentally and economically acceptable system of non-hazardous and hazardous waste management reducing waste flows and adverse effects of waste on human health and to ensure rational use of waste for recycling and power engineering."

Transport

"167. Long-term goals are while creating a cost-efficient transport system, to co-ordinate development of all kinds of transport giving priority to transport having less adverse effects on the environment, increasing the energy effectiveness of the transport sector and using more alternative and less polluting fuel, to reduce environment pollution, to have less impact on the global climate and to increase traffic safety."

"173. Short-term goals are to create economic and legal conditions for the development of less polluting and safer transport, to use more less harmful (liquefied and natural gas, low-sulphur fuel oil) and alternative (biodiesel, bioethanol) fuels."

Industry

"176. Long-term goals are to base the development of industry on the implementation of state-of-the-art and less harmful technologies, to increase not only the economic but also the ecological effectiveness of enterprises, to use resources more economically and to reduce adverse effects on the environment."

"179. Medium-term goals are to increase recycling of local renewable resources and recoverable resources, to promote manufacturing of environment-friendly equipment, installations and reusable packaging and to implement cleaner production methods on a wider basis."

"182. Short-term goals are to create a legal, economic and institutional environment promoting the implementation of state-of-the-art environment-friendly technologies and equipment, to use energy and other natural resources economically, to recycle local renewable resources and recoverable resources, and hazardous materials used for production and to replace them with non-hazardous materials."

Energy

"185. Long-term goals are to form a sustainable power engineering sector able to compete in the open international energy market reliably and safely supplying energy to all economic branches of Lithuania, to increase the effectiveness of energy production and distribution, to promote the use of local renewable and recoverable energy resources and ecologically pure organic fuel and not to exceed the limits of emissions of pollutants and greenhouse gases set out in international undertakings."

"188. Medium-term goals are properly using the EU support and state and private funds to ensure reliable and safe energy supply to all economic branches in Lithuania without exceeding the set pollution limits after the decommissioning of Ignalina NPP."

"191. Short-term goals are to create organisational, legal and economic conditions for proper functioning of the energy sector without exceeding the allowable environmental impact norms."

Long-Term Lithuanian Economic Development Strategy up to 2015

The Long-Term Lithuanian Economy Development Strategy up to 2015 is an integral part of the National Long-Term Development Strategy. In relation to the UNFCCC it is important as a single national strategy uniting the development strivings of the energy, industry, transport, and agricultural sectors.

The energy vision sets out that the future energy sector will be well-balanced and not dangerous for the environment. The transport development vision mentions a safe and environment-friendly transport system. The agricultural development vision points out that product manufacturing, processing and sale will be a modern environment-friendly entirety of all branches. The industrial sector development vision does not provide for any application of environmental measures.

The following the general strategic goals are related to the UNFCCC:

"4. to ensure that by 2015 the development of the country's economy and its sectors, structural economic reforms, and the state economic policy would rapidly create the essential and sufficient economic factors ensuring environment protection."

"4.1. Within the next 10 years to rearrange the pollution taxation system strengthening its incentive character and supplementing the environmental taxes with widely applied product and energy taxes."

"4.2. Within the next five to 10 years on a limited scale to implement the system of transferable pollution allowances enabling local air or water polluters to locally "trade" in the pollution and environmental burden."

"10. During the period until 2015 to rapidly modernise the transport infrastructure, to improve the interaction between different kinds of transport, to increase the transit volumes, to integrate into the European market of transport services, and to create a safe and environment-friendly transport system."

"11. During the period until 2015 to reach the reliability of energy supply and consumption efficiency in line with the EU standards, to fully implement the market economy principles in the energy system, to integrate into the EU energy systems, to expand regional co-operation and to increase the share of renewable energy resources in the total balance of primary energy up to 12%."

"11.1. During the entire period to ensure reliable and safe energy supply at the lowest cost and minimal environment pollution and to increase the efficiency of energy consumption."

"11.3. Within the next five years to draft and start implementing a set of measures helping to fully implement all the EU environment directives in the energy sector and to ensure compliance with the nuclear safety requirements."

"13.4. Applying energetically efficient and environment-friendly technologies, within the period until 2015 to minimise adverse effects on the environment and use of energy resources and to promote the use of industrial waste for constructions."

Medium-Term Industry Development Policy

The goal of the Medium-Term Industry Development Policy is to create conditions for the development of industry sector seeking to enhance their competitiveness. Among the competitiveness enhancement measures, plans are to promote ecological production: to create favourable legislation, to participate in international production projects, to educate consumers and inform them about ecological production methods, to support non-governmental organisations contributing to the implementation of ecological production and environmental management systems.

National Energy Strategy

The National Energy Strategy defines the following objectives relating to the UNFCCC:

- to ensure reliable and safe energy supply at the lowest cost and with the lowest level of pollution and continuously increasing the effectiveness of the energy sector;
- to seek that the share of renewable energy resources in the total balance of primary energy would reach 12% by 2010.

Long-Term Lithuanian Transport Development Strategy up to 2025

Strategy provides for certain directions of the Single Transport Policy of Lithuania including transport development and environment protection mentioning objectives of various terms related to the sphere of regulation of the UNFCCC:

"42. Local renewable biological resources must satisfy up to 15% of the fuel need in Lithuania. The necessary legislation must be developed and any support must be provided for the development of energy agriculture and recycling industry. It must be possible to satisfy about the same part of the need (15%) for fuel provided for transport when producing biodiesel and bioethanol. As the experience of other countries shows, the use of alternative energy sources (biofuel, wind and water energy, etc.) is mainly hindered by lobbying activities of companies producing and trading in oil products. The state must regulate legal and economic issues of the alternative energy production and realisation."

"43. The medium-term (up to 2013) objectives should contribute to better organisation and regulation of traffic to ensure lower air pollution and noise levels and to achieve that the air pollution and noise in cities would not exceed allowable norms."

"44. Short-term objectives: to create economic and legal conditions for the development of less polluting and safer transport, to use more less harmful (liquefied and natural gas, low-sulphur fuel oil) and alternative (biodiesel, bioethanol) fuels."

In addition, developing the road transport, plans are to improve the public transport infrastructure and service quality in cities, to form the public transport supply and rates in accordance with the social principle, to create an environment-friendly road transport system, to give priority to less harmful transport, to increase the energy effectiveness of the road transport sector, to use more alternative and more environment-friendly fuels, to modernise and improve the motorless transport infrastructure, and to create systems of bicycle and pedestrian paths separated from the motor transport traffic in cities and residential areas.

Agricultural and Rural Development Strategy

The Agricultural and Rural Development Strategy defines agricultural and rural development directions for 2000-2006, agricultural and rural development goals, principles and priorities.

The Strategy implementation directions related to the fields regulated by the UNFCCC:

"5.1 Partial financing of the rearrangement of agricultural areas not suitable for farming and affected by erosion into pasture land and natural fields and the implementation of afforestation projects.

<...>

5.3 Drafting the afforestation programme for agricultural areas not suitable for farming and affected by erosion.

<...>

5.6 Promotion of growing energy plants and rearrangement of boiler houses with a view to using off-quality wood and wood and other organic waste as fuel."

Environmental Policy of Lithuania and Environmental Measures of the National Sustainable Development Strategy

Among the priorities of the Lithuanian Environmental Strategy the following priorities relating to the UNFCCC implementation are highlighted: to implement the energy saving measures, to promote the use of less polluting fuel and the implementation of pollutant cleaning technologies, to increase forest areas and to seek sustainable development of economic branches. The Strategy Implementation Action programme was drafted for the period of 1996 to 2000 and is thus irrelevant.

When drafting the National Sustainable Development Strategy (2003), the most important tasks of ensuring environment protection including those related to the UNFCCC were integrated therein.

Air Quality

"131.1. to achieve that the GDP per unit of pollutants and greenhouse gases released into the atmosphere would decrease about 50% and by that indicator to reach the current EU average;

131.2. to ensure that when modernising the country's economy and building new sites the best available production methods and state-of-the-art technologies friendly to the environment and human health would be implemented;

131.3. to promote that the use of renewable resources in energy and transport would be continuously growing and by 2020 would reach at least 15% of the total primary energy balance;

"137.1. to improve the procedure of accounting of pollutants released by companies and provision of reports;

"137.3. with a view to implementing the requirements of the Kyoto Protocol of the United Nations Framework Convention on Climate Change ratified by Law No. IX-1203 of the Parliament of the Republic of Lithuania as of 19 November 2002 (Official Gazette, 2002, No. 126-5735), to draft legal and economic measures ensuring the application of mechanisms of general implementation and trading in greenhouse gases in Lithuania."

Waste Management

"158.3. to achieve that a larger part of production and domestic waste would be sorted at the places of formation, and recycling and use of recoverable resources for energy production would reach the EU average;

158.4. to reduce the quantities of gas formed at landfills and contributing to global climate warming, to use them more for energy and to reduce biodegradable waste flows to landfills by 65% (as compared to 2000);

"161.6. to reduce delivery of biodegradable waste to landfills by 25% as compared to 2000;

"164.3. to create favourable economic conditions for the development of recycling of recoverable resources including packaging and the use of waste for power engineering."

It should be noted that in accordance with the legal acts of Lithuania sewage sludge is attributed to biodegradable waste.

National Strategy of the Implementation of the United Nations Framework Convention on Climate Change

One of the tasks of the UNFCCC implementation is to draft the national strategy of the UNFCCC implementation providing for the measures to mitigate climate change and taking into account the national situation and needs. Its action programme should be revised annually taking account of any changes within the country. In Lithuania the strategy of the Convention implementation and the action programme were approved in 1996 by the Resolution of the Government of the Republic of Lithuania and has not been revised since.

The main goal of the Strategy is to reduce greenhouse gas concentrations to ensure that the dangerous anthropogenic effect would not interfere with the climate system. The Strategy provides for the tasks of industry in accordance with the Convention, which is why the coherent implementation thereof is complicated due to the distribution of climate change factors by sectors.

The Programme Implementation Measure Plan of the Government of the Republic of Lithuania for 2004-2008 provides that by the second quarter of 2006 the Ministry of Environment and the Ministry of Economy must draft an amendment to the National Strategy of the UNFCCC Implementation.

Forestry Policy of Lithuania and its Implementation Strategy

The goal of the forestry policy is to ensure sustainable development of forests, to satisfy the needs for forest of various groups of the society and to ensure preservation of forests for future generations. The policy stipulates one of the priority directions in preservation and multiplication of forest resources related to the UNFCCC implementation where there are the following strategic objectives:

"1.1 Sound use of forest resources by reducing the volumes of extraction of timber, by forming and planting ecologically stable trees and duly restoring them;

"1.2 Limitation of transforming forest areas into other areas by applying legal and administrative measures;

"1.3 Planting new forests, increasing the afforestation of Lithuania by 3% within the next 20 years in order to improve the country's ecological sustainability and ensure the role of forests in general rural development (income, jobs, social and economic stability) as well as the rational use of wasted and low-value land taking into account the environment, landscaping, preservation of cultural heritage, tourism development, and other factors."

National Strategic Waste Management Plan

The following are the most important goals of the National Strategic Waste Management Plan: to protect nature and human health from the effects of waste pollution by maximally yet rationally using material and energy resources of waste; to create a rational waste management system meeting the public needs, ensuring good environment quality and not violating the market economy principles; to set out waste management tasks, measures and actions creating conditions for the implementation of the European Union waste management directives within a decade. The strategic plan provides for the following hierarchy of waste management principles: 1) avoiding waste; 2) use of waste; and 3) safe disposal of waste.

Laws of the Republic of Lithuania

a) Compiling the Greenhouse Gas Register and Monitoring

The Law on Environmental Protection (Article 25), the Law on Air Protection (Articles 5, 6 and 19), the Law on Environmental Monitoring (Articles 3, 6, 7, 8, 9, 10, 11, 12, 13, 14 and 15) and the Law on Forests (Article 15).

b) Greenhouse Gas Reduction Measures and Technologies (by Sectors)

Environmental sector

The Law on Environmental Protection (Articles 4, 9, 14, 19, 23, 26, 28, 29, 30, 31, 32, 32(1) and 32(2)), the Law on Air Protection (Articles 1, 3, 10, 11, 13, 15, 18 and 20), the Law on Waste Management (Articles 3, 4, 5 and 30), the Law on Pollution Fee (Articles 1 and 5) and the Law on Local Self-Governments (Article 7).

Energy sector

The Law on Energy (Articles 1, 3, 12 and 20), the Law on Electricity (Articles 3 and 9), the Law on Heat Economy (Articles 1, 4, 7 and 10), the Law on Biological Fuel and Biological Oils (Articles 2 and 4) and the Law on Local Self-Government (Article 7).

Industry sector

There are no laws regulating the industry sector.

Transport sector

The Law on the Principles of the Activities of Transport (Article 11, partially). This Law does not precisely regulate any activities related to the Convention. The Law on Motorless Transport (Article 3).

Agricultural and forestry sector

The Law on Agricultural and Rural Development (Articles 4 and 13) and the Law on Forests (Articles 1, 9 and 15).

Conclusions

The most important strategic provisions of the reduction of the impact of climate changes were included in the National Long-Term Development Strategy (2002), the National Strategy for Sustainable Development (2003), as well as in strategic documents of economic, transport, environment, and rural development sectors. However, it has to be noted that strategies of individual sectors were predominated by the measures to improve the quality of environment with no consideration to the inter-relations of the conventions and the integral impact of climate changes on ecosystems and human health.

Financial Support for Implementation Measures

Implementation of the Convention objectives in Lithuania are defined in the effective legal acts:

- Programme of the Government of the Republic of Lithuania for 2004-2008,
- Single Programming Document of Lithuania for 2004-2006,
- National Energy Effectiveness Increase Programme for 2001-2005,
- Biofuel Production and Use Promotion Programme for 2004-2010.

Programme of the Government of the Republic of Lithuania for 2004-2008

The Programme of the Government of the Republic of Lithuania for 2004-2008 provides for the following activities:

- "to promote electricity production using renewable and alternative energy sources.
The responsible institution is the Ministry of Economy;
- to develop ecological agriculture, to significantly increase areas of certified land, to support production of quality and healthy food products, to provide support for agriculturalists to grow raw materials as fuel sources.
The responsible institution is the Ministry of Agriculture;
- to provide support to entities for afforestation of low-productivity land designated for agricultural purposes.
The responsible institutions are the Ministry of Agriculture and the Ministry of Economy;
- to widely implement and through economic incentives promote clean production based on modern technologies;
- to improve waste collection and sorting and the use of recoverable resources while implementing the EU objectives to recycle packaging. To promote waste processing and use for the generation of energy;
- to draft the programme to reduce atmosphere pollution, which would ensure the implementation of the EU requirements regarding air quality, and to reduce emissions of greenhouse gases;
- to use economic incentives to promote the production and use of ecologically cleaner fuel and biofuel."
The responsible institution is the Ministry of Environment;
- "to increase the afforestation of the country, to promote afforestation of infertile land areas and to implement the long-term forest and forestry development programme."
The responsible institutions are the Ministry of Environment and county governors' administration.

Single Programming Document of Lithuania for 2004-2006

The Single Programming Document (SPD) of Lithuania is a key strategic document regulating the implementation of national priorities of social and economic development, at the same time ensuring the balance thereof and sustainable development of the country.

The SPD measure on the Improvement of the Transport Infrastructure Availability and Service Quality provides for the following activities related to the fields regulated by the UNFCCC:

- to improve the traffic conditions on roads and in streets, to increase traffic safety and reduce the adverse impact of transport on the environment.

The SPD measure on the Assurance of Energy Supply Stability, Accessibility and Higher Energy Effectiveness provides for the following activities related to the fields regulated by the UNFCCC:

- to reduce dependence on energy import by diversifying fuel sources and starting to use local and renewable energy sources;
- to increase energy effectiveness and reduce its adverse impact on the environment.

The SPD measure on the Improvement of Air Quality and Prevention of Damage to the Environment provides for the following activities related to the fields regulated by the UNFCCC:

- to improve environmental management systems and preventive activities by strengthening air quality evaluation, control and management institutions responsible for air quality management and damage prevention.

The SPD measure on the Improvement of Agricultural Product Processing and Marketing provides for the following activities related to the fields regulated by the UNFCCC:

- to promote waste reduction and more effective use of waste and subproducts;
- to protect the environment.

The SPD measure on Forestry provides for the following activities related to the fields regulated by the UNFCCC:

- to ensure sustainable development of forests and to improve sustainable forest management;
- to preserve and improve forest resources;
- to increase forested areas.

National Energy Effectiveness Increase Programme for 2001-2005

The National Energy Consumption Effectiveness Increase Programme for 2001-2005 has been specified and updated in accordance with the requirements of the European Union Directives, the UNFCCC, the Kyoto Protocol, and other international treaties. The Programme provides for the following directions related to the provisions of the UNFCCC for 2001-2005:

- to draft legal acts and regulatory technical documents intended for the implementation of the National Energy Consumption Effectiveness Increase Programme,
- to use renewable, local and recoverable energy resources,
- to use energy in production processes more effectively.

Biofuel Production and Use Promotion Programme for 2004-2010

The goal of the Biofuel Production and Use Promotion Programme is to ensure that:

- by 2010 energy obtained from renewable resources would account for 12% (of which the quantity generated from biofuel produced from raw materials of Lithuanian origin is 10.5%) of the total energy costs;
- by 2010 energy obtained from renewable resources would account for 7% (of which the quantity generated from biofuel is 1.65%) of the total energy costs.

The following are the most important objectives of the Programme related to the implementation of the UNFCCC provisions:

- by 2010 to increase the production of electricity generated from biogas, wood and straw up to 0.204 TWh, and general energy – up to 10.31 TWh per year;
- by 2010 to increase the production of biodiesel from raw materials of Lithuanian origin up to 40 thousand tons per year;
- by 2010 to increase the production of bioethanol up to 20 thousand tons per year;
- to promote growing and preparation of biofuel materials;
- to promote the use of biofuel and to set mandatory indicators of the use of mixed mineral fuel and biofuel;
- to promote research into biofuel production and use – to recognise them as a priority direction in research;
- to implement measures of training, information and consultations as regards biofuel.

The National Strategy for the UNFCCC Implementation (1996) provided for the implementation measures assessing also the funding needed and possible sources thereof. No report was drafted and the implementation of separate measures was reflected in sectoral reports and information on the projects.

According to the information about the projects financed by bilateral and multilateral donors which is given on the websites of the Ministry of Environment, the Central Project Management Agency and the Global Environment Facility (<http://oracle.am.lt/pdb>, <http://www.cpma.lt>, www.undp.lt/sgp) and the data of the NGO survey, 31 projects related to the UNFCCC were implemented from 2000-2005.

In the energy sector projects relating to the implementation of renewable resources are registered in accordance with the installed capacity. According to the data of 2003, in Lithuania the following was installed: 251.1 MW at wood incineration plants (67 projects), 17 MW at a geothermal plant (one project), 14.896 MW at hydroelectric plants (47 projects), 13.726 MW at biogas plants (five projects), 5 MW at straw incineration plants (five projects), 0.0073 MW at a solar plant (one project), and 21.92 MW at others (five projects).

The projects of the transport sector are not registered with the Ministry of Transport and Communications of the Republic of Lithuania because they are implemented by separate municipalities and companies.

Since the Convention ratification, the Nature Protection Fund (now the Special Environmental Support Programme) financed the drafting of two National Reports on Climate Change.

Conclusions

Individual funds for the implementation of the means of the National Implementation Strategy of the UNFCCC have not been allocated. Quite a few means are financed while implementing the National Energy Strategy, the National Programme on Increase of Energy Consumption Efficiency and the Law on Environmental Monitoring. Climate change mitigation means are not directly mentioned in the Single Programming Document 2004–2006.

Institutional Assessment

The **Ministry of Environment of the Republic of Lithuania** is a body managing the implementation of the UNFCCC. National focal point: Vytautas Krušinskas, Head of the Atmosphere Division, Environmental Quality Department.

The Ministry of Economy of the Republic of Lithuania drafts and specifies the National Energy Strategy, the National Programme to Increase the Effectiveness of Energy Consumption, in co-operation with other ministries and institutions organises and coordinates the implementation thereof, participates in the activities of working groups on economic cooperation of the Council of the Baltic Sea States, drafts and implements development programmes for the Baltic Sea Region, provides comments and proposals concerning accession to international treaties, coordinates general implementation projects in the energy sector and submits conclusions to the Ministry of Environment on the acceptability of the concept (idea) of every project to be implemented and the feasibility of its further development.

The Ministry of Agriculture of the Republic of Lithuania within its competence coordinates the production and use of biofuel, the issues of the development of energy production in agriculture and the use of fuel as well as the implementation of agrarian environment protection measures in agriculture.

The Ministry of Transport and Communications of the Republic of Lithuania plans and implements measures which contribute to the reduction of adverse effects of transport on the environment and together with the Ministry of Environment of the Republic of Lithuania approves the certification procedure for vehicles.

To ensure efficient implementation of the UNFCCC and the Kyoto Protocol as well as the requirements of the related European Union legal acts and provisions of the National Sustainable Development Strategy, the National Committee on Climate Change was set up by Order No. D1-58 of the Minister of Environment as of 5 February 2004.

Ministry of Environment

Environment Quality Department

The Department is responsible for the organisation of regulation of state atmosphere quality management and the use of resources. The Department also defines the standards and procedures for the submission of reports on pollutant emissions into the atmosphere and the procedure for issuing permits to release pollutants into the air.

The Atmosphere Division of the Environment Quality Department is the main institution of the Ministry co-ordinating the UNFCCC implementation. The following UNFCCC-related functions of the Division are described in the Regulations of the Division:

- to draft reports to the Convention Secretariat and responsible EU institutions;
- to establish the procedure of monitoring greenhouse gas emissions into the atmosphere and of issuing permits;
- to analyse the adverse effects of enterprise pollution on the environment and to draft recommendations as to their reduction;
- to submit proposals concerning the rational use of energy resources, organisation of heat supply, improvement of the urban transport organisation and infrastructure and within its competence to control the implementation of the planned measures.

The Contaminated Territories and Waste Division of the Environment Quality Department is in charge of shaping the policy of waste and polluted area management and the realisation of its implementation measures.

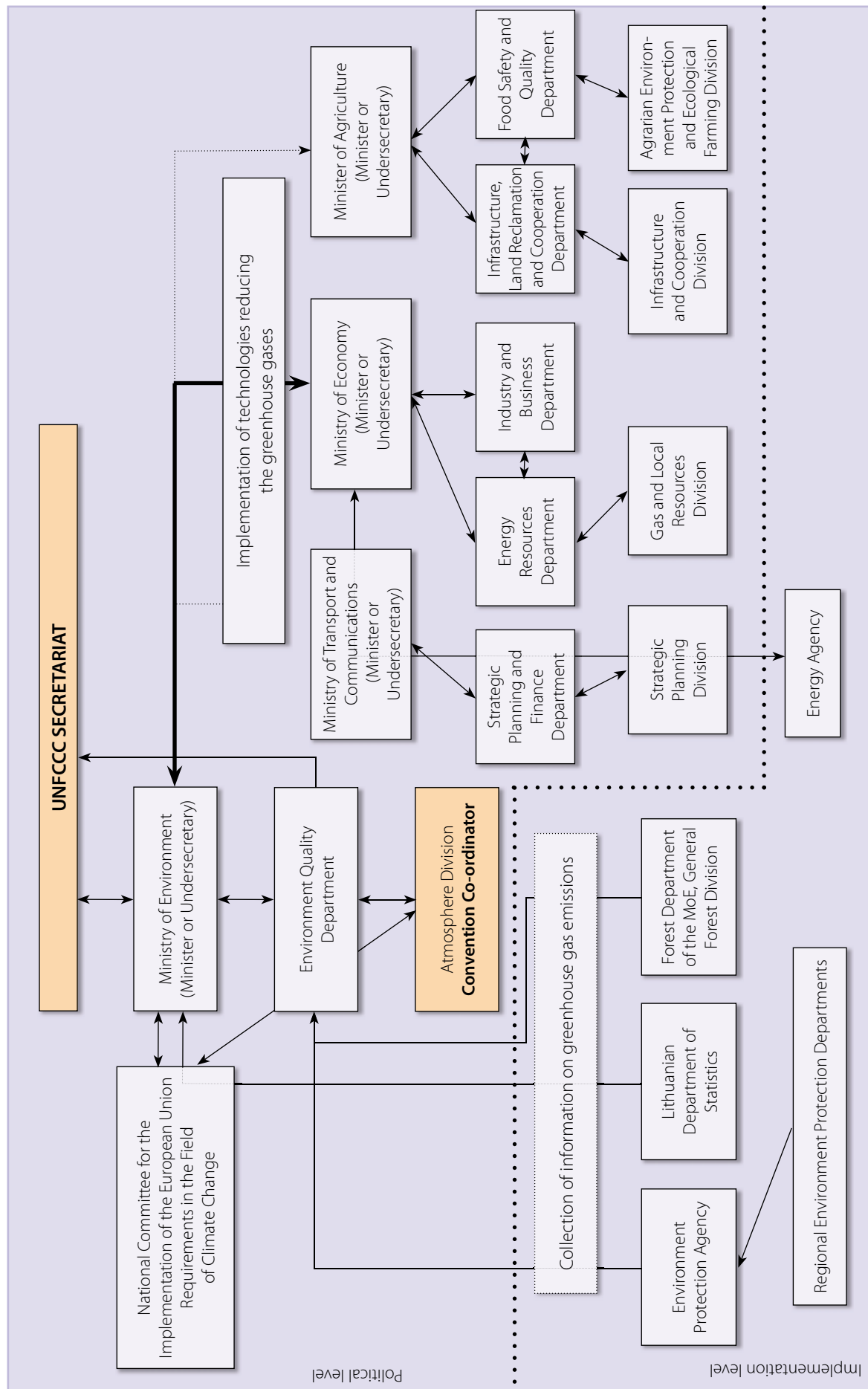


Chart of the UNFCCC Implementation

Forestry Department

The Forestry Department is in charge of shaping the forestry policy and coordination of its implementation. In its activities the Department seeks to ensure that forests would be managed in accordance with the principles of sustainable forestry and that the afforestation of the Lithuanian territory would increase and coordinates the collection of information and statistical data about forests.

Environment Protection Agency

The Environment Protection Agency is responsible for the evaluation of air quality and for monitoring data quality assurance and methodical coordination. The Agency submits reports and information to the EU and secretariats of international treaties concerning:

- air monitoring and measurement methodology;
- stricter emission limits and danger thresholds set;
- exceeded emission limits and danger thresholds;
- plans and programmes intended to improve air quality;
- derogations granted.

The Agency must also constantly inform the public about:

- pollutant concentrations in the air;
- exceeded pollutant limits/danger thresholds.

The Data Management Division of the Environment Protection Agency is responsible for:

- collection and accumulation of data on pollutant emissions into the air;
- organisation of waste accumulation and management accounting;
- assurance of the comprehensiveness and reliability of the data collected, statistical analysis and provision of the data to the public and interested national and international institutions;
- drafting of reports on pollution sources and emissions thereof to public institutions and the European Commission, the European Environment Agency, EUROSTAT, and other international organisations.

Regional Environment Protection Departments

Regional environment protection departments (REPD) are responsible for taking air quality measurements and provision of the data collected to the Environment Protection Agency. Within the scope of the integrated prevention and control permit system the departments collect data on greenhouse gas emissions from stationary sources as well as enterprises using solvents in their technical processes. In addition, the REPDs control the use of natural resources and accounting of pollutant emissions into the environment.

The Lithuanian Environmental Investment Fund is responsible for trading in transferable pollution allowances and administration of the register of transferable greenhouse gas pollution allowances.

Ministry of Economy

Industry and Business Department

The Industry and Business Department is responsible for the implementation of the national industrial, innovation and technology policies and drafts proposals to the management of the Ministry of Economy on the creation of favourable conditions for the development of ecologically clean pro-

duction and the use of waste-minimising technologies; drafts programmes to promote production using local and recoverable resources and coordinates the implementation of measures provided for in those programmes.

Energy Resources Department

The Natural Gas and Local Resources Division of the Energy Resources Department is in charge of shaping directions for the use of local and renewable energy resources and implementation thereof in the context of the National Energy Strategy and of drafting legal acts which promote the use of local and renewable energy resources.

Energy Agency

The Energy Agency performs the following UNFCCC-related functions:

- participates in drafting the National Energy Strategy and programmes to increase the effectiveness of energy resources and energy consumption as well as the use of local, renewable and recoverable energy resources, in implementing, revising and specifying them;
- drafts legal, economic and organisational measures of effective energy consumption for the implementation of the national policies;
- coordinates technical assistance from abroad provided to the national energy sector in accordance with the priorities of the National Energy Strategy and the National Programme to Increase Energy Consumption Effectiveness.

Ministry of Agriculture

Food Safety and Quality Department

In relation to the UNFCCC the Food Safety and Quality Department within its competence drafts and implements the agrarian environment protection and ecological agriculture development strategy and programmes. These activities are assigned to the **Agricultural Environment Protection and Ecological Farming Division**.

Infrastructure, Land Reclamation and Cooperation Department

The Infrastructure, Land Reclamation and Cooperation Department organises the implementation of measures intended to ensure production and use of biofuel and other renewable energy products and within its competence coordinates the issues of agriculture energy development. These activities are assigned to the **Infrastructure and Cooperation Division**.

Ministry of Transport and Communications

Strategic Planning and Finance Department

The Strategic Planning and Finance Department is responsible for inclusion of environmental measures into the strategic action plans of the Ministry and for coordination of research in the transport sector.

There is no separate division responsible for the coordination of implementation of measures to mitigate the adverse effects of transport on the environment and within their corresponding competence these functions are performed by the Safe Traffic Department, the Civil Aviation Department, the Roads and Road Transport Department, the Transit and Railways Department, and the Water Transport Department.

Municipalities

To clarify the contribution of municipalities into the UNFCCC implementation, 22 out of 60 municipalities of Lithuania were surveyed: 5 city municipalities and 17 regional municipalities; this ratio corresponds to the ratio of both types of municipalities in Lithuania.

Municipalities perform their activities in the sectors related to the UNFCCC implementation: energy, transport and environment protection including improvement and protection of environment quality, organisation of waste water collection and treatment, organisation of collection and recycling of recoverable resources, and construction and operation of landfills.

In the energy sector municipalities shape common strategic goals, draft prospective plans within the territory of the municipality and organise heat supply; municipalities inform the public about any measures helping to use energy and energy resources more effectively.

In the transport sector municipalities make decisions seeking to reduce the impact of transport on the environment, to promote the development of motorless transport and set out environmental requirements to the public transport operators.

In the field of waste management, municipalities implement public waste collection systems and organise collection and recycling of recoverable resources. Practically implementing the regional waste management system, municipalities delegate waste management functions and the implementation of national waste management objectives to regional waste management companies incorporated by the municipalities of the region.

Information Management

The following **information systems** currently function or are being developed at the Ministry of Environment of the Republic of Lithuania and its subordinate institutions:

- **air quality monitoring** information system where the air quality measurements are taken at 14 automated air quality monitoring stations. The data from the stations is automatically sent to the central database functioning on the basis of the Oracle Database Management System on an hourly basis;
- Atmosphere Subsystem of the information system of **statistical data on enterprise pollutant emissions** intended to collect and process statistical information of enterprises. The system accumulates annual statistical data on enterprises (~1,000 enterprises). This subsystem does not accumulate any data on CO₂ emission accounting and trading in CO₂ quotas. The system capabilities to group or aggregate data are limited. Due to its obsolete structure the information system is currently being rearranged through the Environment Quality Management Integrated Computer Information System (AKVIKIS) within the framework of the current PHARE project;
- information system of **the register of transferable greenhouse gas pollution allowances** (<http://etr.am.lt/>). The purpose of the system is to ensure trading in transferable greenhouse gas pollution allowances. The system is integrated into the single EU system of registers of transferable greenhouse gas pollution allowances which ensures the functioning of trading in allowances in Europe;
- **CollectER – a tool for air quality data processing and report making** (part of CorineAir). CollectER is the key tool helping the Environment Quality Department of the Ministry of Environment of the Republic of Lithuania to collect the national emission inventory data. The tool allows the user to use standard emission factors and to calculate the total quantities of pollutant emissions on the scale of Lithuania;

- **enterprise control data** is currently accumulated using the GeoEnviron Information System. This system is designed to ensure that enterprises would be interested in providing as precise data on pollutant emissions as possible. The system accumulates data on results of enterprise inspections, violations and excessive pollution cases as compared with the allowances granted. The system is used to plan for environmental inspection activities and draft reports on inspection results.

Conclusions

While implementing the UNFCCC the lack of action coordination not only among different ministries but also among the departments of the Ministry of Environment is witnessed. The activity of the National Committee on Climate Change is ineffective as it has no rules of procedure and there are no ways to ensure that the related institutions included committee's decisions into their strategic documents and action plans.

Research and Development

The Ministry of Environment of the Republic of Lithuania in accordance with its Regulations "organises and coordinates scientific research related to natural resources, use and regeneration thereof and environment protection, within its competence organises other research and development, financing of related programmes and projects, coordinates implementation thereof and promotes innovations" (Regulations, paragraph 6.21).

Within the UNFCCC coverage the Environment Quality Department of the Ministry of Environment did not provide any information on research.

The following UNFCCC-related research was ordered by the Forest Department of the Ministry of Environment:

- Drafting the forestry strategy, taking account of climate change and atmosphere pollution in accordance with the Helsinki Resolution H1 (continuation of work of 1999);
- Drafting technological models of afforestation of unproductive and abandoned land; Assessment of the possibility of rational use of forest-cutting waste.

Pursuant to its Regulations, **the Ministry of Economy of the Republic of Lithuania** "through the programmes supervised by the Ministry promotes the cultivation of innovative, scientific and technical, information and managerial competencies in the fields of energy, industry, business and trade and contributes to the creation of the information society and the common European research area" (Regulations, paragraph 6.2.1.).

Scientific research ordered by the Ministry of Economy in 1995-2004:

- Study of opportunities in Lithuania of implementing the Kyoto Protocol requirements applying the greenhouse gas reduction mechanisms;
- Analysis of the legal acts on the implementation of the Law of the Republic of Lithuania on Biofuel as regards the EU Directives and provision of concepts and proposals concerning the drafting of necessary legal acts;
- Assessment of fuel component (methanol and petrol) mixing in economic, environmental, and technical terms;
- Analysis of the use of biofuel and the potential thereof and drafting the biofuel programme;

- Analysis of the use of seized alcohol products for biofuel production and drafting legal acts regulating the delivery of such products to biofuel generators;
- Feasibility study of the effective use of petrol with a 10% ethanol additive as automobile fuel;
- Drafting layout schemes of construction of wind power plants in Lithuania taking into account the potential of the wind power, technical possibilities, and environmental requirements of connecting to the energy transmission networks identifying economically feasible consolidated capacity quotas of wind power plants for every zone;
- Drafting the technical project of removing sulphur from fuel oil incineration products in low-capacity boilers in the implementation of the requirements of EU Directive 1999/32/EC and implementation of the project in 2004;
- Specification and update of the National Energy Consumption Effectiveness Increase Programme, providing for its implementation and specification thereof;
- Technical and economic rationale for the installation of a condensational economiser using the heat of the water steam condensation present in the boiler smoke in boiler houses and the project implementation in 2005;
- Drafting the concept of the implementation of Directive 2002/91/EC of the European Parliament and of the Council;

These works were performed by the Lithuanian Energy Institute, the Lithuanian University of Agriculture, Vilnius Gediminas University of Technology, Kaunas University of Technology and the Thermal Insulation Institute.

Scientific research planned for 2005:

- Assessment of the level of readiness of the Lithuanian energy sector for trading in transferable pollution allowances in 2008-2012 and possibilities of trading therein with neighbouring countries;
- Use of local fuels (wood);
- Analysis of the requirements of biofuel (wood, straw, public waste) accounting at energy generation sources and drafting recommendations concerning legal regulation of biofuel accounting;
- Annual analysis of biofuel and mineral fuel production costs and market prices in Lithuania;
- Drafting the methodology to check the effectiveness of heating boilers of a nominal output capacity not lower than 20kW and heating systems with heating boilers over 15 years old and of a nominal output capacity of over 20 kW installed in buildings;
- Drafting the methodology to check the effectiveness of air conditioning systems of a nominal output capacity of over 12 kW installed in buildings;
- Research in the effective use of renewable energy resources in public buildings;
- Analysis of the effective use of energy in technical processes.

The Ministry of Transport and Communications of the Republic of Lithuania in accordance with its Regulations “within its competence promotes the advance of innovations and participates in drafting targeted research programmes” (Regulations, paragraph 6.3.).

At the Order of the Ministry of Transport and Communications, Vilnius Gediminas University of Technology drafted the National Transport Research Programme of Lithuania for 2003-2012 providing for fundamental and applied research with a view to implementing the Lithuanian Transport and Transit Development Strategy.

Pursuant to the Programme, in 2004 the Ministry of Transport and Communications ordered the study Transport and Environmental Indicators in accordance with the Requirements of the European Environment Agency and Eurostat; in 2005, the National Programme on Transport and Environment of 1992 is to be specified and plans are to draft the proposal concerning the establishment of a regional research laboratory to measure air pollution by ships on the basis of the Navigation Institute of Klaipėda University.

The Ministry of Agriculture of the Republic of Lithuania in accordance with its Regulations “within its competence organises state management of scientific and technical progress, participates in shaping directions and priorities of specialist training, consultation and development, manages financing and implementation of scientific programmes and projects and promotes innovations” (Regulations, paragraph 6.27).

The key scientific research directions¹² implemented by Lithuanian institutions and related to the fields of regulation of the UNFCCC are given in the table.

Faculty of Natural Sciences of Vytautas Magnus University	<ul style="list-style-type: none"> Complex Impact of Environment and Climate Change on Flora and Human Health.
Faculty of Agronomy of the Lithuanian University of Agriculture	<ul style="list-style-type: none"> Examination and Assessment of Physical and Chemical Properties and Productivity Change of Soils of Different Genesis as Defined in the New Lithuanian Classification of Soils under the Influence of Natural and Anthropogenic Factors.
Faculty of Natural Sciences of Vilnius University	<ul style="list-style-type: none"> Change of the Ecosystem and Global Change; Ecosystem and Climate Change, Environment Protection and Use of Natural Resources.
Institute of Environmental Studies of Vilnius University	<ul style="list-style-type: none"> Change of the Ecosystem and Global Change.
Institute of Geology and Geography	<ul style="list-style-type: none"> Research into Structure, Condition and Change of Climate, Hydrosphere and Geological Environment, Process Analysis and Forecasts, Rationale for Protection and Economical Use and Geotechnologies.
Institute of Ecology of Vilnius University	<ul style="list-style-type: none"> Regularities and Mechanisms of Global Change of and Anthropogenic Impact on Sensitivity, Vulnerability, Adaptations and Microevolution of Ecosystems and Components Thereof; Functioning of Water Ecosystems in the Context of Global Change and Anthropogenic Impact and Regularities and Mechanisms of Adaptation and Evolution.
Faculty of Electronics and Automatics of Kaunas University of Technology	<ul style="list-style-type: none"> Renewable Energy.
Institute of Environmental Engineering of Kaunas University of Technology	<ul style="list-style-type: none"> Cleaner Production and Funding Thereof.
Faculty of Agricultural Engineering of the Lithuanian University of Agriculture	<ul style="list-style-type: none"> Development of Ecological Technologies Ensuring Economical Use of Energy Resources.
Faculty of Mechanics of Vilnius Gediminas University of Technology	<ul style="list-style-type: none"> Mathematical Modelling, Development and Examination of Ecologically Clean Technical Processes.
Institute of Transport Sciences of Vilnius Gediminas University of Technology	<ul style="list-style-type: none"> Improvement and Development of Various Transport Technologies (safe traffic, environment protection, energy saving).
Institute of Environment Protection of Vilnius Gediminas University of Technology	<ul style="list-style-type: none"> Research into Transport Impact on the Environment.

¹² Research and development in Lithuania. Directory, Ministry of Education and Science, 2004.

Alytus College	<ul style="list-style-type: none"> Examination of the Cost-Effectiveness of Use of Alternative Fuels in Internal Combustion Engines.
Lithuanian Energy Institute	<ul style="list-style-type: none"> Development of Energy Planning Methods, Examination of Safety, Reliability, Environmental Impact and Effective Energy Consumption of Energy Objects and of Renewable Energy Sources.
Institute of Architecture and Construction of Kaunas University of Technology	<ul style="list-style-type: none"> Scientific Research into Methods and Ways of Energy Saving in Buildings, Properties of Constructions and Materials and Reprocessing of Industrial Raw Materials into Construction Materials.
Institute of Agricultural Engineering of the Lithuanian University of Agriculture	<ul style="list-style-type: none"> Examination of Conversion of Renewable Energy Sources and Plant Products and Waste to Obtain Non-Food Materials.
Institute of the Lithuanian Scientific Society	<ul style="list-style-type: none"> Research into Natural Formation of Artificial Systems and Application Thereof in Solar Element and Fuel Cell Technologies; Social and Economic Aspects of Renewable Energy.
State Enterprise Transport and Road Research Institute	<ul style="list-style-type: none"> Programme for calculating pollution by automobile transport emissions and noise.

Conclusions

With reference to the survey of scientific research related to the implementation of the provisions of the UNFCCC, it can be stated that Lithuania has enough competent expert institutions that implement scientific research in the areas of the regulation of the UNFCCC. The Ministries of Environment, Economy, Transport and Communications, and Agriculture initiate and finance the scientific researches related to climate changes, however, there is still a need for the collaboration of the ministries and coordination of the researches. The collaboration of the coordinator of the UNFCCC with the related public authorities and managers of corresponding scientific programmes is insufficient; part of the orders related to the implementation of the Convention are fulfilled by individual experts but not by the institutions. Applied researches do not use the budget allocations that are in the disposition of the Ministry of Education and Science (state orders), moreover, applied researches are not promoted by the methodology of activity evaluation.

In-Service Training

Ministries

To identify professional development needs, a questionnaire was drafted for carrying out a survey of the staff related to the UNFCCC implementation by means of complex self-analysis and standardised interviews. Competencies necessary for a civil servant are divided into two blocks – general professional competencies (necessary for a certain category of civil servants irrespective of the field of the unit activities) and special competencies (by fields regulated in the Convention).

Not only responsible servants but also their managers were surveyed making an assumption that the latter could evaluate the needs for professional development in a broader context and taking account of strategic plans of the unit. The total number of survey participants was 24 servants related to the UNFCCC implementation and 6 managers.

All the respondents would like to develop professionally in the fields related to the UNFCCC within their respective competence defined in the job descriptions. It should be noted that among the staff surveyed only five persons admitted having sufficient knowledge and experience to be able to train others on the issues of the UNFCCC implementation.

Municipalities

Representatives of 22 municipalities surveyed by post filled in only the self-analysis questionnaires. They were requested to evaluate their own competence and needs for professional development as regards the implementation of all the UN Conventions analysed within the project (the Conventions were not discussed individually because usually in municipalities one and the same civil servant is in charge of all the Conventions). Many of the respondents who returned their questionnaires (47%) assessed their own competence as average – “I have some experience”, 32% would like to develop professionally, and only 21% are satisfied with their competence in the field of regulation of the Conventions.

Assessing the needs for professional development in general competencies the officials mostly emphasised the ability to formulate strategic provisions and programmes and their implementation measures and to involve stakeholders and the public into the process of decision consideration and making.

Non-Governmental Organisations

NGO representatives participating in the survey were asked to assess their competence and needs for professional development as regards the implementation of the UN Conventions analysed within the project. Eighty-three per cent of the NGO respondents wished to develop professionally in the field of climate change and they did not point out any irrelevant topics. Only two representatives of NGOs admitted having qualifications to give seminars on topics related to the UNFCCC: one representative stressed their readiness to give seminars on the topic of international measures to mitigate climate change and the other one – about the implementation of technologies mitigating climate change in households.

Conclusions

With reference to the analysis of qualification development programmes of accredited civil servants it can be stated that the training intended for the development of general management skills predominate. There are no specialized programmes on the topics related to the UNFCCC in the catalogue of Public Service. Common seminars, systematic collaboration of scientists and authorities would contribute to their qualification development. Moreover, it is highly recommended to involve the representatives of NGOs and other interest groups into the training.

Public Information and Awareness Raising

No separate public awareness raising programme to promote the implementation of the UNFCCC was drafted and public awareness raising and information measures (preparing publications, dissemination of documents, seminars) were integrated into the National Strategy of the Convention Implementation.

As no strategy implementation report was drafted, the activities in the field of public awareness raising and education on the UNFCCC topics were evaluated on the grounds of information provided by ministries.

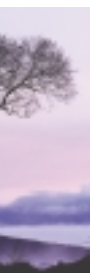
In 1999-2002, **the Ministry of Environment of the Republic of Lithuania** published an air quality annual providing information on the air quality condition. Information regarding air quality is given in the annual reviews of the state of the environment.

The Ministry of Economy of the Republic of Lithuania drafted and published more than 40 various publications on the effective use of energy resources, local, renewable and recoverable energy resources and organised over 30 seminars, conferences and competitions. Articles prepared by the Ministry on the topic are published in the magazines "Statyba ir Architektūra" and "Mokslas ir Technika". Recommendations concerning public awareness raising and information on the effective consumption of energy resources were developed for municipalities and energy companies.

The Ministry of Economy of the Republic of Lithuania also participates in formal education activities: it has co-ordinated the drafting of the integrated training programme for school students Saving Energy Resources and Energy, Warm and Ecological Home submitted for approval to the Ministry of Education and Science of the Republic of Lithuania.

Conclusions

Ministries, municipalities and NGOs have implemented within their field of competence quite a large number of public information and education measures related to the issues of energy saving and its effective consumption. A special national public information and education programme on climate changes has not been prepared. The measures implemented by various institutions, such as the preparation of publications, distribution of documents, organization of seminars were included into the National Implementation Strategy of the UNFCCC.

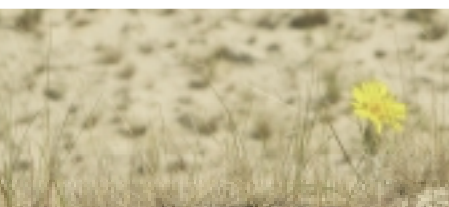




UNITED NATIONS CONVENTION TO COMBAT DESERTIFICATION

Thematic Assessment Report





Ratification and Current Status of the Convention

The Parliament of the Republic of Lithuania ratified the United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa (the UNCCD) on 3 July 2003 by adopting Law No. IX-1684.

Areas Regulated by the Convention

Regional Implementation Annex V intended for Central and Eastern Europe is in force in the Republic of Lithuania. The above Annex stipulates 8 region-specific conditions under which the following 3 interrelated spheres are relevant for the implementation of the provisions of the Convention:

- soil erosion caused by water and wind;
- impoverishment of arable lands;
- reduction of forested areas.

The meeting held on 23 May 2005 at the initiative of the Ministry of Environment of the Republic of Lithuania regarding the implementation of the UNCCD in Lithuania discussed the relevance of the spheres regulated by the Convention for Lithuania. With the consent of the Ministry of Agriculture of the Republic of Lithuania, it was decided that in 2005 the problems addressed by the Convention were not priority fields for Lithuania and that in the context of the Convention, Lithuania was not deemed to be "an affected country".

Assessment of Current Status

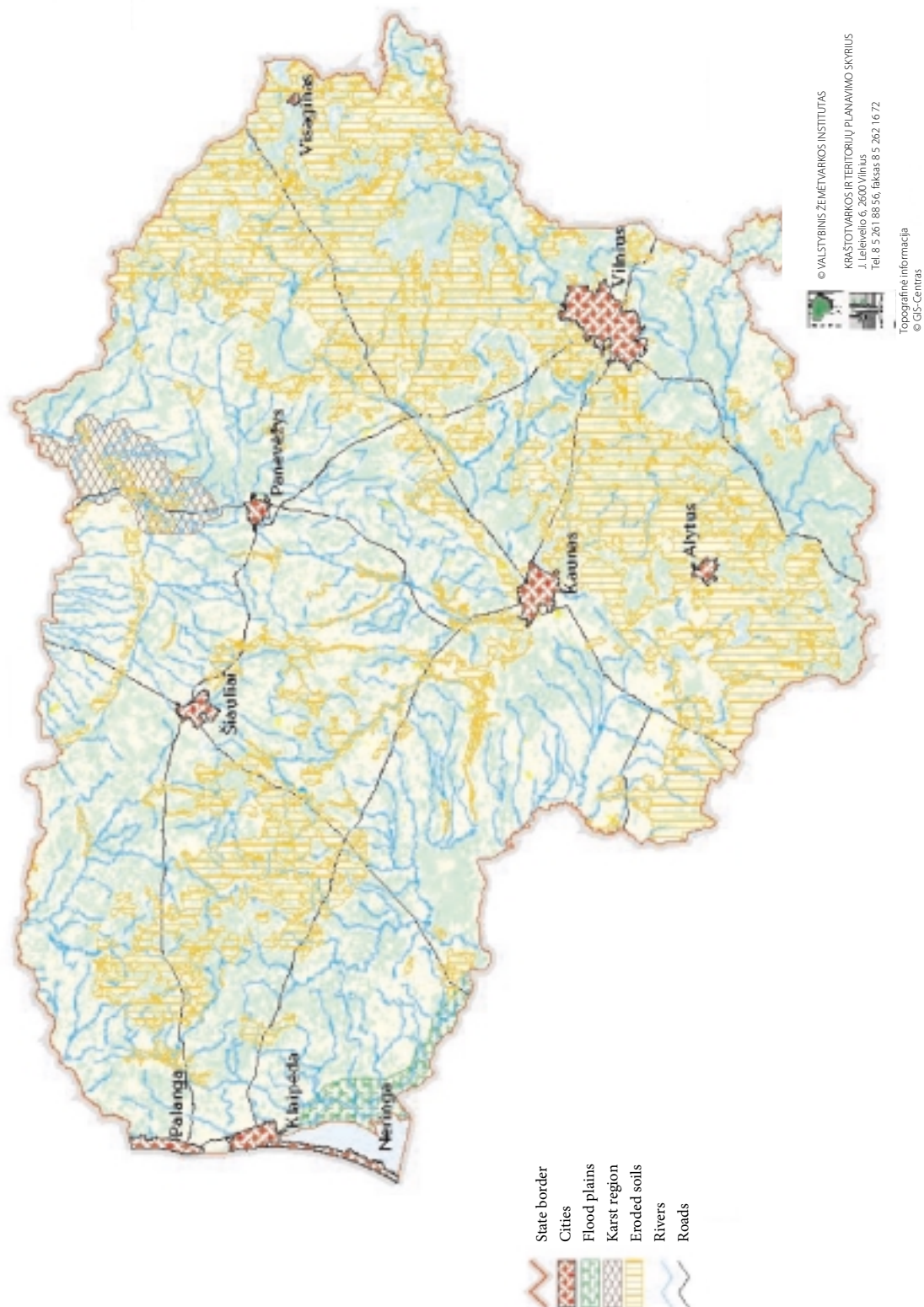
According to the data of the State Land Planning Institute, all soils in Lithuania have been studied and soil maps have been compiled on the scale of 1:10000. About 14% of agricultural land is affected by erosion, which causes damage to the valuable layer and fertility of the arable lands. The average soil loss is about 1.8 to 2.5 t/ha¹³. Most lands affected by erosion caused by water and wind are in the western and eastern parts of Lithuania. Ecologically sensitive areas (including land affected by erosion) are shown on the map.

Damaged caused by water erosion is very diversified: washing of the fertile soil layer and nutrients from slopes, destruction of crops on eroded slopes, erosion of trench slopes and roads, sanding of trench beds, silting of water bodies and water pollution. One of the measures to prevent erosion of arable land is existing requirements to implement certain crop rotation systems. Establishing shelter belts of surface water bodies would also help to slow down the erosion process, especially on eroded slopes.

To inhibit intensive degradation of the Lithuanian coast of the Baltic Sea, the Seacoast Line Planning Programme providing for coastal planning measures to preserve or revive important or characteristic coastal properties has been approved and the works to reinforce the range of dunes have been performed.

Impoverishment of arable land is conditioned by the choice of an irrational way of farming not taking account of the peculiarities of a specific area. An important measure to avoid impoverishment of arable land in protected and ecologically sensitive areas is ecological farming based on modern environment-friendly technologies. Principles of ecological farming not only ensure high-quality, safe agricultural products but also encourage farmers to increase the fertility of soil, reduce environmental pollution and preserve biological diversity.

¹³ Rural Development Plan of Lithuania for 2004-2006.



Ecologically sensitive areas

Lithuania has all the necessary prerequisites for production of ecological products: favourable ecological conditions, state aid, development of the domestic and foreign market of ecological products, and national and international recognition of Ekoagros Certification scheme all create conditions for export of ecological products.

The number of ecological farms increases every year. In 2001, there were 290 (the certified land area was 6,469 ha), in 2002 – 393 (8,780 ha) and in 2003 – 697 (23,289 ha). In 2004, Ekoagros VŠĮ certified 1,179 ecological farms and the area of certified ecological farms reached 42,961 ha, or over 1% of the total agricultural land in the country¹⁴.

With the changing economic and social conditions in Lithuania less and less land is used for agricultural purposes. This trend is especially prominent in the regions with large areas of infertile land. Afforestation of low-value agricultural land not only helps protect biological diversity, ground and surface waters and absorbs carbon dioxide, but also reduces erosion caused by water and wind.

Describing the condition of soil in Lithuania, the Rural Development Plan for 2004-2006 highlights the strengths, weaknesses, opportunities and threats.

Strengths

- The use of fertilisers in agriculture within the last decade has significantly decreased, but agricultural land is not exhausted.
- Phosphorus and potassium content in soil remain almost unchanged and soil enriched with phosphorus and potassium has even slightly increased.
- Due to reduction in the use of pesticides and stricter control of the quantity thereof, contamination of soil with residual pesticides has decreased.

Weaknesses

- Soil in Lithuania is quite acidic.
- Soil erosion.

Opportunities

- Gradual purification will hopefully occur together with development of ecological farms and implementation of environment-friendly farming methods in traditional farms.
- Development of forested areas on account of infertile land and areas planted with perennial flora will reduce the land areas affected by erosion.

Threats

- Seeking productivity of agricultural crops may promote the use of pesticides and mineral fertilisers, which in turn would increase the danger of soil contamination with remnants of pesticides and leakage of nitrogen components to ground waters and surface water bodies.

Conclusions

The regulation areas of the UN Convention to Combat Desertification (UNCCD) are based on the national legislation. The National Strategy for Convention Implementation has not been prepared since Lithuania is not treated as “an affected country” from the point of view of the UNCCD. This status should be changed with regard to the arguments presented below:

- Mechanically affected hilly landscape becomes especially sensitive to wind and water erosion;
- Uneven distribution of precipitation (showers and droughts) determine the erosion of soil; erosion is also caused by the elution of calcium carbonate;

¹⁴ Rural Development Plan of Lithuania for 2004-2006.



- Untended, declining melioration equipment add to the water-evoked soil erosion;
- Acidification of soil arouses the threat of the exhaustion of farmlands;
- Due to the use of intensive ways of agriculture, including ecological agriculture, soil loses nutritional materials; it becomes more vulnerable to the influence of wind and water that causes erosion;
- EU payment system for agriculture promotes agriculture with no consideration of the peculiarities of soil, therefore, there is a necessity to foresee soil erosion and farmlands exhaustion prevention means.

National Legal Framework of the Convention

The following strategic documents comprehensively define relevant fields covered by the UNCCD:

- National Long-Term Development Strategy (2002)
- National Sustainable Development Strategy (2003)
- Agricultural and Rural Development Strategy (2000)
- Strategic Plan of the Ministry of Environment of the Republic of Lithuania (2005-2007)¹⁵
- Strategic Plan of the Ministry of Agriculture of the Republic of Lithuania (2005-2007)¹⁶

Related legislation and other legal acts:

- Law of the Republic of Lithuania on Land (1994, version in force – 2004)
- Law of the Republic of Lithuania on Environmental Monitoring (1997, version in force – 2003)
- Law of the Republic of Lithuania on Agricultural and Rural Development (2002)
- Law of the Republic of Lithuania on Water (1997)
- Order of the Minister of Agriculture of Republic of Lithuania “Concerning good agriculture practice” (2004 m.)¹⁷.

No special national strategy of implementation of the UNCCD has been drafted in Lithuania. Its implementation was to be integrated into the Strategy of Land Use of the Republic of Lithuania but the drafting of that strategy was not included in the Governmental Programme of the Republic of Lithuania for 2004-2008.

National Long-Term Development Strategy

The National Long-Term Development Strategy describes the vision of the Lithuanian State which provides for the following: “Ecological farming measures in line with the EU directives will ensure development of environment-friendly farming, preservation and increase of natural resources.”

Long-term national development priorities and directions of implementation thereof provided for in the Strategy:

- The section on environment protection points out that it is necessary “to diminish soil contamination with organic and mineral fertilisers and other chemicals used in agriculture, oil products and heavy metals; to identify old contamination and eliminate it.”

¹⁵ Strategic Plan of the Ministry of Environment of the Republic of Lithuania for 2005-2007, Internet access www.am.lt.

¹⁶ Strategic Plan of the Ministry of Agriculture of the Republic of Lithuania for 2005-2007, Internet access www.zum.lt.

¹⁷ Order of the Minister of Agriculture of Republic of Lithuania “Concerning good agriculture practice” (2004 m.).

- In the field of rural and agricultural development plans are “to implement a range of legal, economic, organisational and administrative measures to maintain good cultural and technical state of land, preserve land fertility and improve the condition of land reclamation facilities.” In addition, plans are “to support alternative activities by promoting production of unconventional and ecological agricultural products...” and “by providing state aid, to promote production of ecological products and to create favourable conditions for the formation of the market of ecological products.”
- The Strategy plans “to increase the area of forested land in the country by planting woods on wasted and low-value lands.”
- The Strategy focuses on the development of science, education, consultation and information services: “to create a single system of agricultural intellectual development covering science, education, vocational continuous training and counselling fields.”

National Sustainable Development Strategy

The National Sustainable Development Strategy provides comprehensive assessment of soil processes, defines important tasks and measures of implementation which are presented in this report by fields regulated by the Convention:

- Soil erosion caused by water and wind:
“199.1. in ecologically sensitive areas (karst region, hilly regions) to farm using ecological and environment-friendly traditional methods, to develop anti-erosion farming measures and to plant anti-erosion plants.”
- Impoverishment of arable lands:
“196.1. to provide economic support for development of ecological farms, to promote scientific research into how to increase the effectiveness of ecological farming and activities of consultative companies and to promote more active use of products grown at ecological farms.”
- Reduction of forested areas:
“196.3. to forest defensive strips of fields and water bodies, to increase afforestation in Lithuania by 3% by afforesting infertile land.”

Agricultural and Rural Development Strategy

The Agricultural and Rural Development Strategy defines agricultural and rural development directions for 2000-2006, agricultural and rural development goals, principles and priorities.

Objectives of the Strategy related to the fields regulated by the UNCCD:

“4. Environment protection, ecological farming promoting biological diversity and cherishing the landscape.”

“7. Efficient system of agricultural education, training, counselling and enlightenment closely related to production.”

Strategic Plan of the Ministry of Environment of the Republic of Lithuania

The Strategic Plan of the Ministry of Environment of the Republic of Lithuania for 2005-2007 lists strategic objectives related to protection of environment components (including soil):

- to ensure proper quality of environment for the Lithuanian population taking into account norms and standards of the European Union;
- to ensure rational use of natural resources (including forests) and their further reproduction, to preserve biological diversity, natural heritage values and uniqueness of the landscape.

The Strategic Plan of the Ministry of Agriculture of the Republic of Lithuania for 2005-2007 mentions the strategic objective related to management of processes affecting soil:

- to promote environment protection and ecological farming promoting biological diversity and cherishing the landscape.



Other Related Legal Acts

- **The Law of the Republic of Lithuania on Land** stipulates: "Relations pertaining to land shall be regulated in such a manner as to create conditions for the satisfaction of the needs of the population, rational territorial distribution and development of all branches of economy, protection and improvement of the environment, rational land use, protection of the rights of ownership, management and use of land" (Article 1).

Protection of land designated for agricultural purposes shall be ensured (Article 39): "...When using private and state land designated for agricultural purposes, agricultural lands must be protected against the impoverishment of soil, wind and water erosion, overgrowing with shrubs and forest, turning into swamps or other deterioration of properties. While carrying out construction or exploiting natural resources, the fertile layer of soil must not be destroyed and must be used for the improvement of agricultural land whereas damaged land must be recultivated."

- **The Law of the Republic of Lithuania on Environmental Monitoring** provides that "the state of soil is subject to environmental monitoring organised by the Ministry of Environment of the Republic of Lithuania" (Article 7).
- **The Law of the Republic of Lithuania on Agricultural and Rural Development** stipulates that conditions thereof are in line with the EU Agricultural Policy and key legal acts of the EU regulating the agricultural sector and rural development. The Law is the first to introduce the definition of rural development: "Rural development means the promotion of the quality of life of residents of rural areas, the improvement of rural economic and social structure, as well as relations between the communities in order to ensure economic and social cohesion, to carry out job retention and creation in rural areas, to maintain and foster ethnic culture, the countryside and the natural environment."
- **The Law of the Republic of Lithuania on Water** regulates: "Owners and users of water bodies and land shall ensure that their economic activity will not cause water to do damage: that it will not flood, inundate, destroy banks or protective dams, hydrotechnology and other facilities, that it will not reduce land to swamps, will not erode the soil, will not cause caverns or landslides" (Article 37).
- **Order of the Minister of Agriculture of the Republic of Lithuania** on requirements to good farming practices regulates activities when "implementing measures relating to defensive strips of surface water bodies, protection of water bodies and protection from erosion, regulation of the density of animal population in a farm and manure management, use of plant protection products, protection of soil quality, protection of biodiversity and natural resources, field management requirements, gardening principles and norms of wellbeing of waters and animals."

Conclusions

Lithuania-relevant measures necessary to implement the requirements of the UNCCD were included into the National Long-Term Development Strategy (2002), National Strategy for Sustainable Development (2003), and Agriculture and Rural Development Strategy (2000).

Financial Support for Implementation Measures

The National Action Programme for the UNCCD Implementation was not drafted, which was why no targeted financing was provided for either. On the other hand, relevant activities falling within the UNCCD scope are integrated into the national strategies and corresponding implementation measures. Activities of implementation of the fields regulated by the Convention in Lithuania are defined in effective legal acts:

- Programme of the Government of the Republic of Lithuania for 2004-2008;
- Rural Development Plan for 2004-2006.

Programme of the Government of the Republic of Lithuania for 2004-2008

The Programme of the Government of the Republic of Lithuania for 2004-2008 provides for the following activities:

- to develop ecological agriculture, to significantly increase areas of certified land, to support production of quality and healthy food products, to provide support for farmers to grow raw materials as fuel sources.
The institution in charge is the Ministry of Agriculture;
- to provide support to entities for afforestation of low-productivity land designated for agricultural purposes.
The institutions in charge are the Ministry of Agriculture and the Ministry of Environment;
- to increase the afforestation of the country, to promote afforestation of infertile land areas and to implement the long-term forest and forestry development programme: annually to afforest at least one thousand hectares of land transferred to forest enterprises from the free fund of state land.
The institutions in charge are the Ministry of Environment and county governors.

Rural Development Plan for 2004-2006

The Rural Development Plan (RDP) for 2004–2006 was drafted in accordance with the development strategy of the entire country provided for in the Single Programming Document (SPD) of Lithuania. Measures presented in the Plan are complementary to the Lithuanian SPD measures related to agriculture, rural development and forestry. The goal is to ensure that actions proposed would be interrelated and that sustainable rural development results would be achieved.

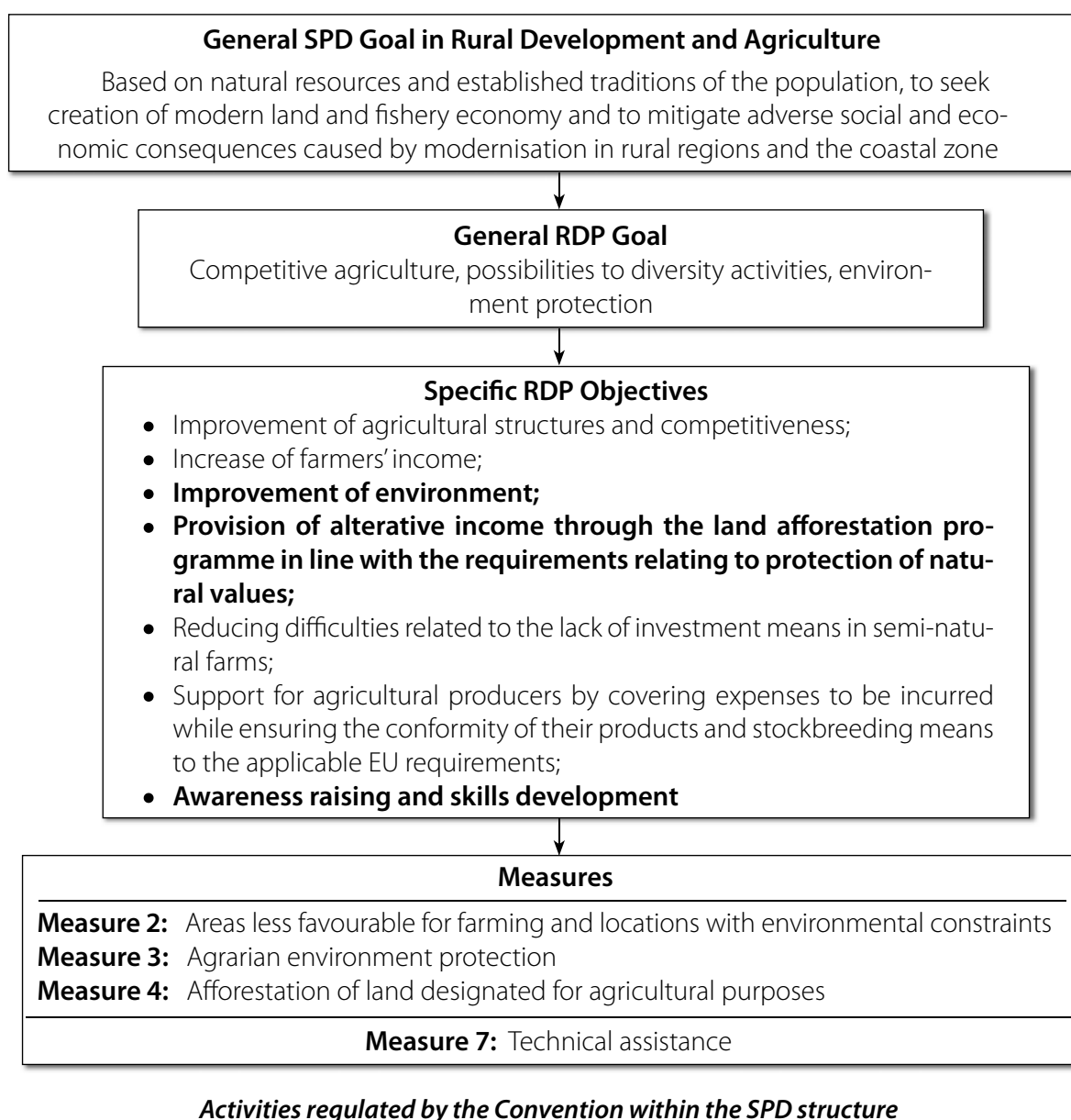
Rural development objectives and measures related to the UNCCD are presented in the table (activities regulated by the Convention within the SPD structure).

- **Areas less favourable for farming** (ALFF) and locations with environmental constraints: general goals are “to ensure improvement of the environment in areas less favourable for farming while implementing good farming practices” and “to ensure implementation of environmental constraints and proper farming in locations with environmental constraints”. In ALFF ecological farming is of especial significance.
- **Agrarian environment protection** (the only mandatory measure): the Programme measures include provision of a defensive strip at surface water bodies in fields and arable land and protection from erosion as well as ecological farming.
- **Afforestation of land designated for agricultural purposes**: the general goal is to increase the economic, ecological and social value of land property and the specific goal is to afforest 12 thousand ha of land.
- **Technical** assistance: an additional measure designed to inform rural residents about new opportunities.

The first measure will be implemented only in the designated areas less favourable for farming approved together with the RDP and in locations set within the Natura 2000; other measures apply to the entire territory of Lithuania.

The Ministry of Agriculture is the main institution in charge of the RDP implementation although implementation of certain measures (projects or actions) may be assigned to other responsible organisations as directed by the Ministry of Agriculture.





Resources of the Republic of Lithuania for the UNCCD implementation could be conditionally assessed using the reports on financing the RDP measures. Financing provided for the measures of the Rural Development Plan for 2004-2006¹⁸ related to the UNCCD implementation:

Measures	Total public support, million EUR	EU share, million EUR
Measure 2: Areas less favourable for farming and locations with environmental constraints	146,900	117,520
Measure 3: Agrarian environment protection	62,200	49,760
Measure 4: Afforestation of land designated for agricultural purposes	26,792	21,434

¹⁸ www.zum.lt

Conclusions

As the National Action Programme implementing the UNCCD has not been prepared, the targeted financing to implement it has not been allocated. It is intended to implement the related measures in accordance with the Programme of the Government 2004-2008 and the Rural Development Plan 2004-2006.

Institutional Assessment

The Coordinating Authority of the UNCCD implementation is **the Ministry of Environment of the Republic of Lithuania**.

The National Coordinator is Dalia Gudaitienė-Holiman, Chief Specialist of the Natural Resources Division of the Nature Department. No cross-institutional working group for the implementation of the UNCCD has been formed.

Pursuant to the aforementioned legal acts, at the national level the fields regulated by the Convention are assigned to the competence of the **Ministry of Environment of the Republic of Lithuania and the Ministry of Agriculture of the Republic of Lithuania**. The Ministry of Environment shapes the policy of protection of environment components (including soil), and the competence of the Ministry of Agriculture covers management of processes affecting soil.

Ministry of Environment of the Republic of Lithuania

Nature Protection Department

The Nature Protection Department consisting of four divisions is in charge of regulation of use, regeneration and protection of natural resources and resources of the entrails of the earth as well as recultivation of damaged areas. The main tasks include formation and implementation of the policy and strategy of use, regeneration and protection of natural resources and resources of the entrails of the earth as well as restoration and renaturalisation of damaged areas, organisation and coordination of natural resources protection plans and drafting of other protection programmes and measures.

Activities of use, protection and restoration of soil as one of the natural resources are assigned to **the Natural Resources Division**. Apart from other activities, it organises implementation and coordination of conventions, international programmes, treaties and projects in the field of nature protection assigned to the Natural Resources Division.

Environment Quality Department

The Environment Quality Department is in charge of the quality of natural resources including soil and regulation of use thereof as well as solving issues related to use and protection of natural resources with neighbouring countries. The Department performs the following functions related to the UNCCD activities:

- within its competence to set requirements to soil quality and regulate use of natural resources;
- to plan, organise and coordinate targeted environmental scientific research works relating to soil environment in the field of dangerous chemical substances;
- to coordinate the works of compiling and specifying the national soil cadastre;
- to provide proposals concerning organisation of soil monitoring and to use the results thereof when shaping the environment quality management policy.

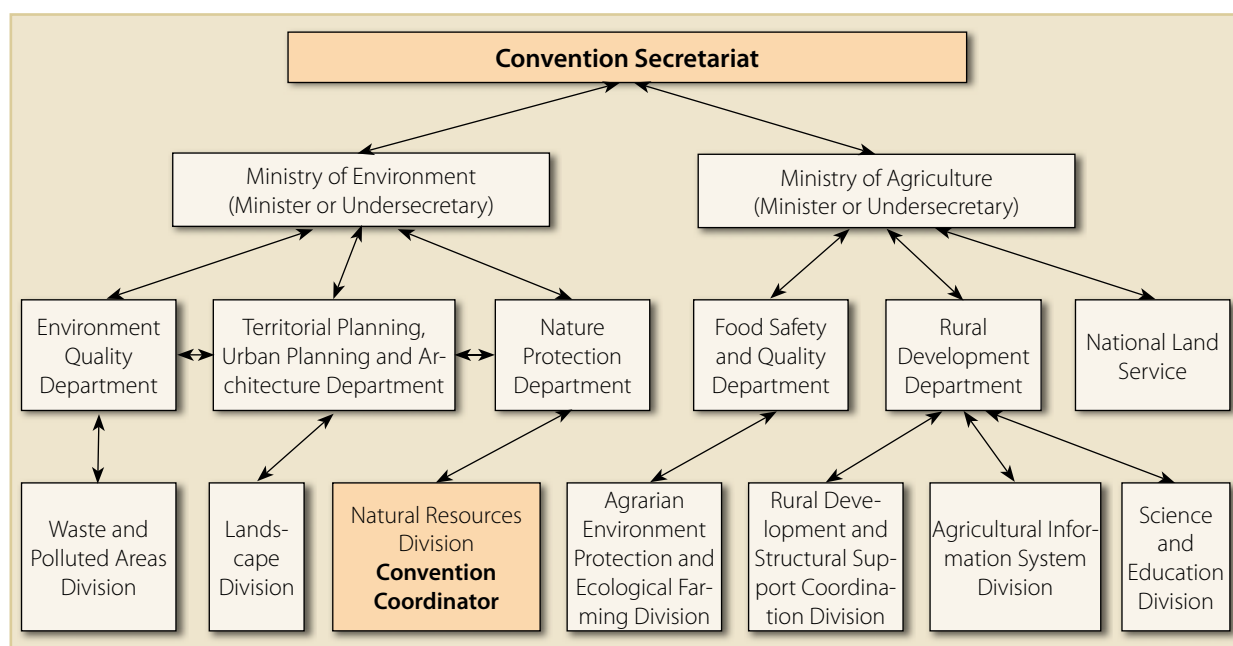


Chart of the UNCCD Implementation

Territorial Planning, Urban Planning and Architecture Department

The **Landscape Division** of the Department is assigned to organise management and protection of landscape and its components (including soil) by regionally regulating urbanistic, recreational and other economic activities. Agrarian landscape most conspicuously affected by the processes covered by the Convention (soil erosion and impoverishment) is a component of activities of the Division.

Ministry of Agriculture of the Republic of Lithuania

Rural Development Department

The Rural Development Department consists of three divisions which are all important for the implementation of activities related to the Convention: **Rural Development and Structural Support Coordination Division, Agricultural Information System Division and Science and Education Division**. The Rural Development Department performs the following functions related to the UNCCD activities:

- shapes the rational rural development strategic policy and organises supervision of long-term rural development programmes;
- coordinates implementation of measures of the Single Programming Document financed from the Structural Funds which are assigned to the Ministry;
- within its competence shapes and implements the national policies in the fields of agricultural science, education, consultations, adult education, professional development, local governments of agriculturalists, enlightenment and culture;
- coordinates activities of the Council of Agricultural Science and the Council of Agriculturalists Education, organises their meetings and execution of resolutions;
- shapes strategic policies related to the agricultural information system;
- within its competence collects information related to the activities of agricultural entities.

Food Safety and Quality Department

In relation to the UNCCD the Food Safety and Quality Department within its competence drafts systems for certification and control of ecological agriculture development and ecological farming products. These activities are assigned to **the Agricultural Environment Protection and Ecological Farming Division**.

National Land Service under the Ministry of Agriculture

The National Land Service under the Ministry of Agriculture is a state institution of the Republic of Lithuania implementing the national policy in the field of land management and administration and land reform. The task of the Authority related to the UNCCD is methodical management of land and soil examination and assessment works as well as real property accounting works.

Municipalities

Activities falling within the fields regulated by the UNCCD are not regulated at the municipal level. Functions of municipal institutions related to the UNCCD are conditionally defined in the Law of the Republic of Lithuania on Environment Monitoring which obligates to monitor the condition of the natural environment of one's territory, to assess and forecast environment changes and possible consequences and to provide information to the public and public institutions.

Other Institutions

State Land Survey Institute

The State Land Survey Institute implements the following activities in the fields related to the UNCCD: soil examination, cartography and land evaluation, planning anti-erosion measures and drafting measures of planning, recultivation and anti-erosion related to use of infertile land. Two divisions implementing those activities should be pointed out: **the Landscaping and Territorial Planning Division and the Soil Division**.

Regional Centres for Continuous Education of Farmers

At present the national system of continuous vocational training for agriculturalists and rural residents in line with the EU requirements is being developed and improved – in 2003-2004, 45 regional centres for continuous vocational training were established, over 200 continuous education programmes were drafted and the procedure of continuous vocational training for farmers was set out.

Conclusions

When implementing the UN Framework Convention on Climate Change (UNFCCC), the lack of action coordination between the Ministry of Environment and the Ministry of Agriculture is witnessed. The collaboration among state institutions and scientific institutions is insufficient; the applied researches do not use the budget allocations (state orders) that are in the disposition of the Ministry of Education and Science, there is no cooperation between the Convention coordinator and scientists who are responsible for the corresponding scientific programmes.



Research and Development

The Ministry of Environment of the Republic of Lithuania in accordance with its Regulations “organises and co-ordinates scientific research related to natural resources, use and regeneration thereof and environment protection, within its competence organises other research and development, financing of related programmes and projects, coordinates implementation thereof and promotes innovations” (Regulations, paragraph 6.21).

Within the UNCCD coverage the Ministry of Environment of the Republic of Lithuania did not order any scientific research work and did not provide for any funds for that.

The Ministry of Agriculture of the Republic of Lithuania in accordance with its Regulations “within its competence organises state management of scientific and technical progress, participates in shaping directions and priorities of specialist training, consultation and development, manages financing and implementation of scientific programmes and projects and promotes innovations” (Regulations, paragraph 6.27).

Under the Rural Support Programme for 2004 the Ministry of Agriculture of the Republic of Lithuania subsidised the following research related to the UNCCD implementation¹⁹:

Detailed agrochemical field soil examination	Centre for Agrochemical Research of the Lithuanian Institute of Agriculture
Laboratory analysis of soil samples	Centre for Agrochemical Research of the Lithuanian Institute of Agriculture
Dirvožemio žemėlapių sudarymas	Centre for Agrochemical Research of the Lithuanian Institute of Agriculture
Accounting for implementation of agrarian environment protection measures for the EU and HELCOM programme Agenda 21	Water Management Institute of the Lithuanian University of Agriculture
Sustainability and new implementation prospects of the Agrarian Environment Protection Measure of the Rural Development Plan for 2004-2006	Water Management Institute of the Lithuanian University of Agriculture

Scientific research to be financed in 2005:

Tackling the problem of reducing the speed of acidification of calcinated soils by minimising farming activities	Vėžaičiai Branch of the Lithuanian Institute of Agriculture
Monitoring of agrochemical properties of soil	Centre for Agrochemical Research of the Lithuanian Institute of Agriculture
Research into the prospects of growing medicinal herbs in ecological farms and areas less favourable for farming	Institute of Botany

In accordance with the data of the Ministry of Education and Science in 2004 in Lithuania several scientific research programmes relating to the fields regulated by the UNCCD were implemented.

- **The Faculty of Agronomy of the Lithuanian University of Agriculture** performs research into the genesis, classification, ecology and productivity of arable land in Lithuania.

¹⁹ Data of the Science and Education Department of the Ministry of Agriculture of the Republic of Lithuania

- **The Faculty of Water and Land Management of the Lithuanian University of Agriculture** develops methods of identifying ecologically sensitive areas.
- **The Lithuanian Institute of Agriculture** carries out research into physical, chemical and biological properties of soil and processes of plant nutrition as well as analyses regularities thereof.

Voke Branch – monitoring of anthropogenic impact on the soil formation, forecasting use of natural resources, examination of measures to protect soil; research into transformation and qualitative composition of the organic part of soil.

Vezaiciai Branch – soil acidification processes, calcination and fertilisation systems; research into establishing regularities of changes in chemical, physical and microbiological parameters of soil; agroecological research.

Kaltinenai Experimental Station carries out research intended to create a system to protect soils of hilly landscape from destruction which integrates soil protection using plants (perennial plants, anti-erosion crop rotation, alternate crops and post-harvest crops) in the most rational farming, fertilising and plant protection ways. The scientists of Kaltinėnai Test Station are also active participants in international projects.

Conclusions

With regard to the survey of scientific researches related to the implementation of the provisions of the UNCCD, it can be stated that Lithuania has enough competent expert institutions that could become initiators of various projects or scientific programmes in the future. It has to be noted that the bigger part of the scientific research in the area was executed according to the international projects.

In-Service Training

In analysing training possibilities for civil servants, it must be pointed out that the list of training programmes for civil servants coordinated **by the Ministry of Interior of the Republic of Lithuania** contains no specialised professional development programmes related to the topics covered by the Convention. During courses organised for civil servants they mainly acquire general managerial skills while special subject knowledge and skills are formed during various workshops.

The Ministry of Environment of the Republic of Lithuania in accordance with its Regulations “coordinates and within its competence <...> takes care of professional development of civil servants and employees working in the fields falling within the competence of the Ministry” (Regulations, paragraph 6.65).

The Ministry of Agriculture of the Republic of Lithuania in accordance with its Regulations “implements the policy of strengthening administrative institutional capacity with a view to implementing the Common Agricultural Policy of the European Union (CAP) and effectively using the support of the European Union allocated for agriculture” (Regulations, paragraph 6.6).

As it was not possible to perform objective evaluation of the competence of employees whose work is related to the Convention implementation, it was indirectly evaluated based on the results of self-analysis of the staff and listed needs for professional development. A survey of civil servants showed that they would prefer to have training related to the problems of erosion caused by water and wind.



Conclusions

With reference to the analysis of qualification development programmes of accredited civil servants it can be stated that the training intended for the development of general management skills predominate. There are no specialized programmes on the topics related to the UNCCD in the catalogue of Public Service. Joint seminars, systematic collaboration of scientists and authorities would contribute to the qualification development. Moreover, it is highly recommended to involve the representatives of NGOs and other target groups into the training.

Public Information and Awareness Raising

At the national level no public awareness raising and education activities in relation to the UNCCD implementation were planned.

The Ministry of Environment of the Republic of Lithuania in accordance with its Regulations "coordinates and within its competence organises public awareness raising and education <...>" (Regulations, paragraph 6.65).

Information regarding soil quality is given in the annual review of the state of the environment.

The Ministry of Agriculture of the Republic of Lithuania in accordance with its Regulations "informs the public about the activities of the Ministry and drafts reviews of the general agricultural policies and the latest events in the land, food and fishery spheres in the European Union" (Regulations, paragraph 6.48). Besides, the Ministry "organises professional development of farmers and agricultural system specialists and within its competence participates in drafting professional development programmes for teachers of higher schools of agriculture and schools of agriculture" (Regulations, paragraph 6.28).

In accordance with the data provided by the Ministry of Agriculture of the Republic of Lithuania concerning public awareness raising and education issues as regards environment protection, activities of prevention of impoverishment of arable land and development of ecological farming cover:

- articles in periodicals "Mano Ūkis", "Ūkininko Patarėjas", "Katalikų Pasaulis";
- publications "Agrarinė Aplinkosauga" (Agrarian Environment Protection) (2004), "Izraelis Keliautojo Akimis" (Israel through the Traveller's Eyes) (Laužadis, 2004), "Žvilgsnis į Šiaurės ir Vidurio Europos šalis. Istorija, Aplinka ir Ekologija" (A Look at Northern and Central European Countries. History, Environment and Ecology) (Laužadis, 2005), "Maisto Produktų Pavadinimų Apsauga" (Protection of Foodstuff Names) (in cooperation with the Food Institute of Kaunas University of Technology, 2005);
- press releases drafted and disseminated by the Public Relations Department on relevant issues of agrarian environment protection, ecological farming and food safety and quality.

In 2004, under the SAPARD Programme the following programmes relating to the fields regulated by the UNCCD were implemented for the farmers registered:

- Basics of Ecological Farming (about 1,140 persons participated);
- Implementation of Ecological Farming Production Rules (103 persons participated);
- Environment Protection in Agriculture (500 persons participated).

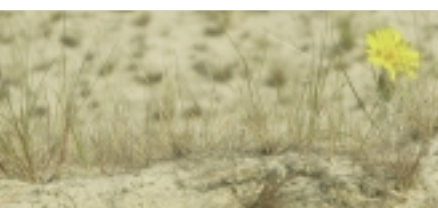
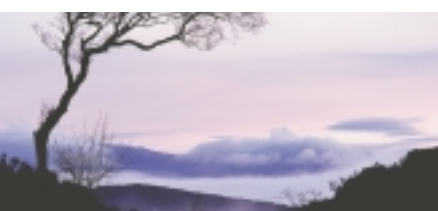
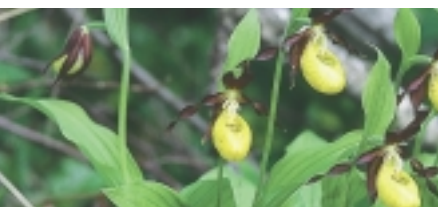
Conclusions

On the state level, the public information and education activity related to the implementation of the UNCCD has not been planned. The information on the quality of soil is provided in the annual survey State of Environment of the Ministry of Environment. The Ministry of Agriculture prepares and distributes the information on the safety of environment in agriculture, the exhaustion of farmlands and prevention means, the ecological farming among them.

IMPLEMENTATION OF 3 RIO CONVENTIONS

Cross-Cutting Assessment Report

Recommendations for Priority Actions



CROSS-CUTTING ASSESSMENT REPORT

Introduction

Thematic assessment covered ratification of 3 Rio Conventions (Climate Change, Biodiversity, and Desertification/ Land Degradation) as well as the current situation of the areas under the regulations of those conventions. The preconditions for the effective implementation of the conventions were assessed on systemic, institutional and individual levels. Thematic reports also analyzed the implementation of horizontal measures listed in the requirements of all conventions: research and technology development as well as education and public information.

The following problematic areas were defined:

- distribution of the convention requirements and their implementation measures into sectoral strategies without ensuring of systemic approach and an integrative monitoring;
- insufficient inter-institutional coordination and co-operation without taking into account a mutual interdependence of 3 Rio Conventions;
- applied scientific research is not sufficiently used in formulating strategy provisions and developing cross-sectoral programmes as well as in planning the measures for their implementation;
- lack of an attention to the topical problems of the inter-institutional planning and coordination as well as to the horizontal issues of sustainable development within the in-service training system of public servants;
- lack of consistent education and informing on sustainable development issues, general public is not encouraged to take an active part in the discussion and implementation of sustainable development provisions according to their competence.

The summary of the problems is presented in the following table.

Problems	JUNFCCC	JUNCBD	UNCCD
SYSTEMIC LEVEL			
Requirements of the UNFCCC, UNCBD and UNCCD conventions are integrated in other national and sectoral strategic documents but there are no relevant strategies and plans of measures of implementation of the conventions.	X	X	X
The strategies of public institutions and bodies do not take into account interconnections of different UN conventions.	X	X	X
Lack of ecosystemic approach.	X	X	X
Measures related to the UNFCCC cover only improvement of environment quality, there are no adaptation measures provided for.		X	
Measures related to the UNFCCC do not take into account health aspects.		X	
Only environment quality and climate indicators are collected and accumulated without taking into account the impact of climate change on ecosystems and human health.		X	

Insufficient regulation of protection of genetic resources of animals for agriculture.	X		
Documents governing ecological farming do not take into account the soil qualities.			X
INSTITUTIONAL LEVEL			
Ineffective interinstitutional coordination and cooperation of implementation of the conventions.	X	X	X
Ineffective coordination of activities of the National Committee on Climate Change.		X	
Ineffective convention coordination activities by the public Commission for Biological Diversity Preservation Issues (effective coordination only of genetic resources and GMO related activities).	X		
There is no coordination group for the UNCCD convention.			X
The Ministry of Education and Science does not participate in the implementation of horizontal measures.	X	X	X
The Ministry of Health does not participate in the implementation of the UNFCCC convention.		X	
Inadequate coordination of databases related to the implementation of conventions.	X	X	X
INDIVIDUAL LEVEL			
The list of training programmes for civil servants at the Ministry of Interior does not contain any specialised convention-related in-service training programmes.	X	X	X
SCIENTIFIC RESEARCH AND EXPERIMENTAL DEVELOPMENT			
Insufficient cooperation of public institutions and bodies and educational establishments in the area of strategic planning.	X	X	X
Implementation of the requirements of the UN conventions is not sufficiently based on scientific research results.	X	X	X
Academic potential and budget funds (state orders) are not fully used in the applied research in the areas related to the requirements of the UN conventions.	X	X	X
PUBLIC EDUCATION AND INFORMATION			
Different institutions take part in the activities related to public information and education related to the UN conventions but their activities are not harmonised and do not systematically cover different education levels and variety of measures.	X	X	X

In the Program of the Government for the period of the 2004-2008 there is included a revision of the National Strategy on the Conservation of Biodiversity as well as National Strategy of the UN conventions. When discussing the results of the thematic assessment of the Convention on Land Desertification there was suggested to the Ministry of Environment to investigate a need to develop a national strategy for it's implementation.

For the cross-cutting analysis were chosen the above presented problematic areas which are essential for the efficient implementation of 3 Rio Conventions.

1. Management of cross-sectoral programmes including strategic planning and inter-institutional organization/coordination of implementation measures.
2. Research and technology development.

3. In-service training of the public servants.

4. Public education and information.

These areas of the cross-cutting analysis are in good correspondence with the common requirements of 3 Rio conventions presented in the methodological guidelines by Global Support Programme.

Issues	Biodiversity	Climate Change	Desertification/ Land Degradation
Reporting by Parties to COP	Article 26	Article 12	Article 26
National and regional action programmes/plans	Article 6(a), 6(b)	Article 4.1 (b)	Article 9,10, 11
Financial mechanisms	Article 21	Article 4(1) (7)	Article 21
Public education	Article 13	Article 6	Article 5(d), 19, 6
Public participation	Article 14(a)	Article 6 (i) (a) (iii)	Article 5(d), 10.2(f), 19.3(b)
Research	Article 12(b)	Article 5	Article 17, 19(b)
Training	Article 12(a)	Article 6	Article 19

Management of Cross-Sectoral (Inter-Institutional) Programmes

Systemic Assessment

The present chapter covers important documents on strategic planning and administration contributing to the development of the environment for management and administration of intersectoral (inter-institutional) programmes.

Strategic planning and administration aspects are defined by:

- National Long-Term Development Strategy (2002)
- Public Administration Development Strategy for 2010 (2004)
- Republic of Lithuania Law on Regional Development (2000, relevant edition of 2004)
- Methodology of Strategic Planning (2002, relevant edition of 2004)
- Methodology of Evaluation of the Impact of Draft Decisions (2003)

Implementation activities and functions of public administration authorities are defined by:

- Republic of Lithuania Law on Civil Service (1994, relevant edition of 2005)
- Republic of Lithuania Law on Public Administration (1999, relevant edition of 2005)
- Republic of Lithuania Law on Local Self-Government (1994, relevant edition of 2005)
- Plan of Measures of 2005-2006 for the Implementation of Public Administration Development Strategy for 2010 (2005)

The present chapter also focuses on the legal acts governing training of civil servants as one of the premises and means for improving public management.

National Long-Term Development Strategy

The Lithuanian Seimas approved the National Long-Term Development Strategy in 2002. State governance and self-government were named as one of the priority areas of the Strategy determining its effective implementation.

The Strategy notes that “improvement of public administration is a continuous, systematic process, embracing central, territorial and municipal levels of government as well as the civil service as the underlying form of public relations in the area of public administration.”

Strategic direction for the improvement of public administration in the context of implementation of the UN environmental conventions is “modernisation of activities of the Government and governmental agencies, ensuring transparency of internal administration and public administration procedures of the institutions of State governance.” The aim is to restructure the State governance system based on a systematic approach and basic principles of management, to establish simple and transparent decision-making procedures for various governmental institutions. The strategy stresses the need of making decisions relating to state governance by reconciling different public interests, explaining to the public the meaning and consequences of decisions and taking into account public opinion.

Introduction of modern management principles is closely related to the development of the administrative capacity of the civil service. The means of achieving the goal is “to ensure the training of highly qualified civil servants at higher educational institutions, to organise continuous in-service training.”

In order to implement the above-mentioned provisions of the National Long-Term Development Strategy of the State, in 2004, the Government approved the Public Administration Development Strategy for 2010 and the Plan of Measures of 2005-2006 for Implementation of the Strategy (2005). A monitoring system for strategy implementation is to be developed providing for regular assessments of progress, identification of obstacles and problems that may arise during implementation of the Public Administration Development Strategy for 2010²⁰.

In cooperation with Member states of the European Union in 2005, Lithuania started introducing the General Evaluation Model as an experiment intended for administrative organisations willing to improve their activities²¹.

Public Administration Development Strategy for 2010

Public Administration Development Strategy for 2010 is based on EU recommendations and provides the required preconditions for the development of the public administration system, efficiency of State governance and improvement of the quality of public services through introduction of modern management methods.

The SWOT analysis of the public administration sector as provided in the strategy lists the factors related to the aspects under analysis.

62.1. Strengths

- 62.1.1. Introduction of a strategic planning system in public authorities and bodies.
- 62.1.2. Completion of Methodology of Evaluation of the Impact of Draft Decisions.
- 62.1.7. Development of a training system for civil servants.
- 62.1.8. Introduction of a training system for members of municipal councils.

62.2. Weaknesses

- 62.2.1. Public administration authorities do not functions have yet to be standardised, some of their functions are overlapping.
- 62.2.12. Insufficient inter-institutional cooperation.
- 62.2.13. Insufficient development of activities and initiative of communities in residential areas.

²⁰ Report on the Implementation of the National Long-Term Development Strategy of the State, 2005.

²¹ General Evaluation Model (BEM). Improvement of Organisation Through Self-Assessment. Vilnius, 2005, Internet access www.vrm.lt

62.2.15. Insufficient attention to implementation, monitoring and evaluation of strategic objectives and tasks.

62.2.16. Absence of strategic planning in most municipalities.

62.2.17. Insufficient administrative capacities of civil servants to prepare strategic planning documents.

62.3. Opportunities

62.3.1. EU integration encourages: take-over of institutional and administrative experience from the EU Member States, need for inter-institutional coordination and cooperation, increase of administrative capacities of civil servants, reform of information systems.

62.3.2. There is political will for reforming public administration.

62.3.9. Persons are encouraged to participate in the management of public affairs.

62.3.10. With more use of IT, ties among institutions are improving; the public is being better informed on different issues.

62.4. Threats

62.4.1. Lacking cooperation, coordination of activities of public administration authorities and civil servants.

62.4.3. Insufficient care taken to develop the administrative capacities of civil servants.

The following tasks of improving public administration are relevant for implementation of the UN environmental conventions:

"65.1.2. Improvement of result-oriented management.

<...> Improve the quality of strategic action plans of the institutions themselves, train civil servants in preparation of strategic action plans; evaluate the results of implementation of strategic action plans to adequately establish evaluation criteria for implementation of strategic action plans."

"65.3.3. Encouragement of representatives of local communities to take a more active part in the municipal decision-making process.

Decisions of municipalities must be adopted in a transparent manner: the population needs to be constantly (periodically) informed about decisions under debate as well as adopted decisions in the municipality; before making a decision on issues of importance to the local communities, public debate on alternative decisions should be held; representatives of local communities should be more frequently included into the working groups established at the municipalities; establish more public advisory panels; encourage municipalities to implement education projects for the representatives (leaders) of local communities; encourage cooperation between municipal administration entities and NGOs in working on local public affairs; provide for the experience-exchange of local communities."

„65.4.1. Organisation of systematic training of civil servants.

<...> It is of special importance to further enhance the ability of civil servants in the areas of the EU legislation, strategic planning, management, teamwork, negotiations, and foreign languages."

"65.4.2. Ensuring inter-institutional cooperation.

In order to ensure inter-institutional cooperation it is necessary to develop a system of civil service personnel management and service career planning. In order to find a solution here the selection of civil servants as well as the procedure for evaluation of performance at work will be improved, an information system for management of civil service will be introduced in order to increase the awareness of State and municipal authorities and bodies and implement the integrity of personnel management which in turn will contribute to the upgrading of human resources management in public administration."

Resolution No. 197 of 21 February 2005 the Government of the Republic of Lithuania included into the composition of the supervisory committee of Strategy implementation the representatives of the Ministry of the Interior (chair), the Office of the Government, the Ministry of Finance and the Civil Service Department under the Ministry of Interior.

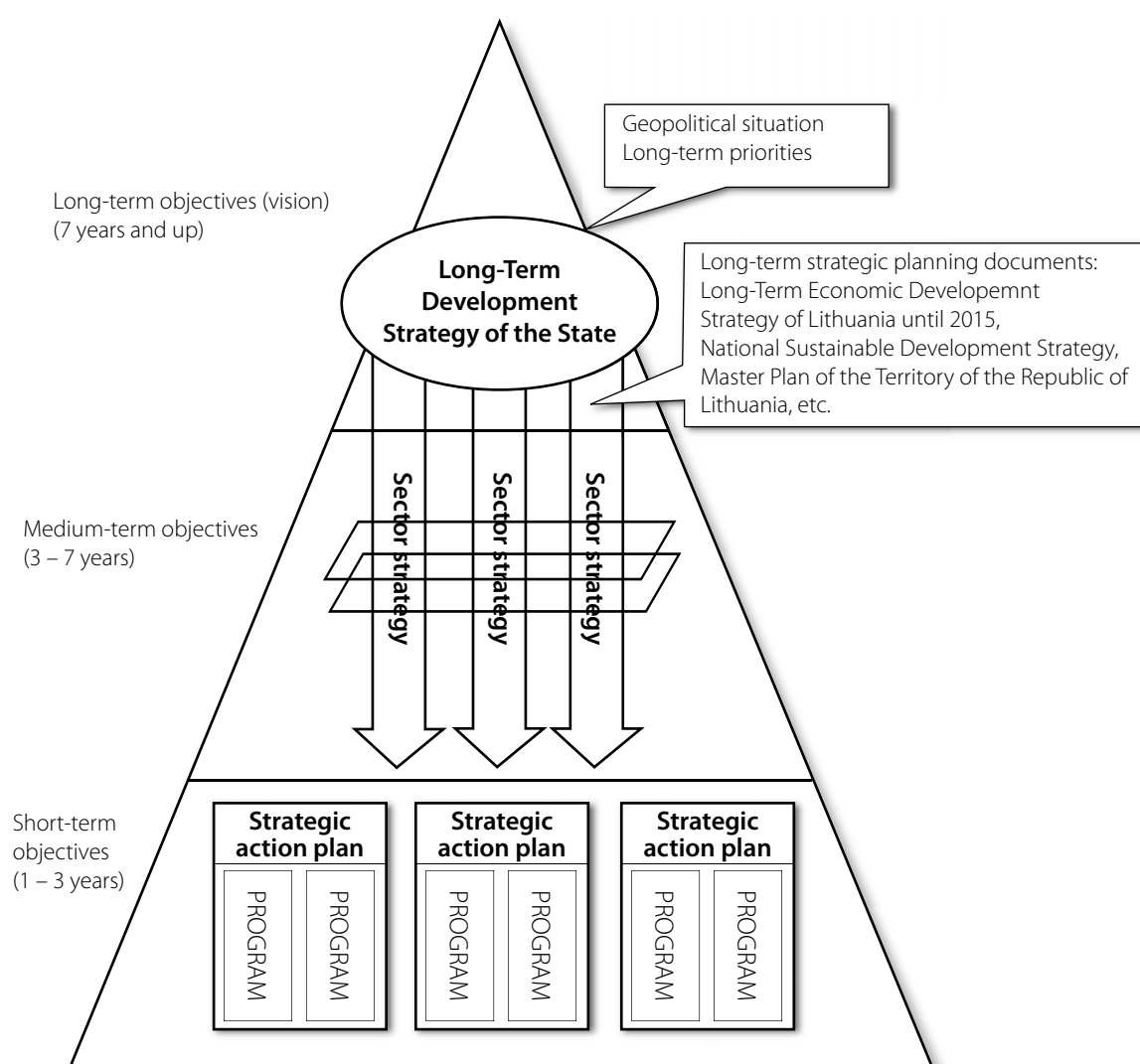
Republic of Lithuania Law on Regional Development

In accordance with the Republic of Lithuania Law on Regional Development, the County Governor's Administration is preparing a plan of regional development with regard to the Long-Term Development Strategy of the State, economic sectoral development strategies, a general territorial plan of the Republic of Lithuania and other related national legal acts as well as strategic development plans of municipalities within the territory of the country as well as general territorial plans of municipalities.

Preparation of the regional development plan includes the analysis of regional, social and economic state, evaluation of the initiatives and proposals brought about by state and local authorities, social and economic partners and all other competent enterprises, bodies and organisations.

Methodology of Strategic Planning

The Methodology of Strategic Planning (hereinafter the Methodology) was approved by the Government in 2002. The Methodology provides for a strategic planning system, principles of strategic planning and drafting budgets in line with the relevant programmes as well as the procedure for preparation of an institutional strategic action plan and sectoral economic development strategy. The institutional strategic planning group and its make-up is approved by the head of the institution. The Environmental Strategy Department is responsible for preparation of strategic plans at the Ministry of Environment.



Framework model of the strategic planning system

The system of strategic planning consists of inter-connected basic strategic planning documents, institutions responsible for drafting thereof and the procedure and deadlines of document drafting. The model of the system of strategic planning provides for preparation of strategic documents on different levels: preparation of the economic sectoral development strategy and institutional strategic action plan and institutional programmes. Programmes are classified as inter-institutional (horizontal) and institutional (vertical).

The Methodology notes that the principal planning document is the National Long-Term Development Strategy, adjusting and combining strategies of economic sectors and other development strategies. At the start of every year the Government, when needed, reconsiders and updates its priorities. The priorities of the Government are determined in line with the provisions of the programme of the Government and National Long-Term Development Strategy.

To improve strategic planning, in 2004, the Government approved the amendments to the Methodology relating to the adjustment of the rules of preparation of inter-institutional programmes, improvement of evaluation criteria and reporting on the achievements. Moreover, the new edition of the Methodology defines the status of the National Sustainable Development Strategy: along with the National Long-Term Development Strategy "the strategic planning system also includes <...> the National Sustainable Development Strategy.(5)"

In order to give a special status to the inter-institutional programmes, the Methodology provides that the programmes must be approved by the Government, which appoints an authorised co-ordinating institution. The plan of implementing measures, providing for financial resources, must be approved along with the programme. The institutions implementing the inter-institutional programme must plan measures within their capacity (without assuming obligations in those areas where they would be unable to exert any influence). The Methodology specifies the procedure of preparation and coordination of implementation of inter-institutional programmes.

"37. Coordination of preparation and implementation of an inter-institutional programme:

37.1. Preparation and implementation of the inter-institutional programme is coordinated by an institution authorised by the Government and other participating institutions are expected to agree with the designated institution on joint activities. During the process of agreeing, the institutions must choose general objectives of the programme as well as decide as to who is going to implement the respective objectives and measures;

37.2. An inter-institutional programme as approved by the Government provides for the following: analysis of the environment, objectives of the programme, main tasks, expected results, evaluation criteria and plan of measures specifying measures of implementation of programme objectives, deadlines, implementers, funding needs and financing sources;

37.3. After the Government approves the inter-institutional programme, the coordinating institution determines the procedure of programme monitoring and reporting. The institutions participating in implementation of an inter-institutional programme foresee measures that must be implemented in their strategic action plans (supplement existing programmes);

37.4. While preparing its strategic action plan an institution participating in an inter-institutional programme fills in the form referred to in Annex 3 Information on Participation in the Inter-institutional Programme of the present Methodology. The form is enclosed with the strategic action plan of the institution and a copy submitted to the coordinating institution;

37.5. Upon receiving information from participating institutions, the institution co-ordinating an interinstitutional programme fills in the form referred to in Annex 4 Information on Participation in the Inter-institutional Programme of the present Methodology and encloses the form with the strategic action plan of the institution."

One of the fundamental innovations of the Methodology is the requirement to define an integral system of evaluation criteria divided into different levels: input evaluation, task implementation (product evaluation criteria), programme objective implementation (result evaluation criteria), strategic objective implementation (effect evaluation criteria). In order to choose the criteria for evaluation of results and, especially, criteria it is necessary to remember that these criteria should reveal the achievements of a specific institution rather than achievements in general. The performance of civil servants should be evaluated in future more through linking their performance to the performance of their institution.

Methodology of Evaluation of the Impact of Draft Decisions

Methodology of Evaluation of the Impact of Draft Decisions was approved by the Government in 2003. Its objective is to regulate the evaluation of the impact of draft decisions in order to take into account, when making a decision, its possible consequences, improve the quality of decisions made by state authorities and bodies, and to choose the best way of problem-solving. ("Draft decisions are draft regulatory acts, draft concepts of regulatory acts, drafts of strategic decisions, strategies, programmes, agreements and negotiation positions.")

Starting from 1 August 2003, draft decisions, except for decisions resulting in editing and/or technical amendments, submitted to the Government for debate are subject to a basic evaluation. The extended evaluation of the impact of draft decisions has been in practice since 1 January 2004 and only those draft decisions that are expected to result in a major impact on economic, social, political life and/or status of a specific area in public relations when implemented are being evaluated.

"20. The decision as to whether an extended evaluation of the impact of a draft decision submitted to the Government is relevant is made by the Government, a governmental committee or a commission except for the cases as set forth by Item 21 of the present Methodology.

21. A State authority or body may itself make a decision as to the relevance of an extended evaluation of the impact of a draft decision submitted to the Government if the draft decision might have a great importance to the social, economic or political life of the country and result in major influence on a specific area of public relations and the authority or body thinks that a basic evaluation would be insufficient."

The impact of decisions is evaluated by possible impact on the area where the decision is planned; moreover, impacts on the economy, state finances, the social environment, the public administration system, the extent of corruption, the environment and the legal system are evaluated in line with the questionnaires provided in the Methodology. Taking into account the nature of a decision other aspects of impact may be evaluated as well.

"9. There are the following aspects of evaluating the impact of draft decisions:

9.1. Impact on a specific area (evaluation of a possible impact on a specific area where changes are planned).

9.2. Impact on the economy (evaluation of a possible impact on the business environment, processes of development of the economy and its individual sectors).

9.3. Impact on state finances (evaluation of a possible impact on the state and/or municipal budgets, financial commitments, possible fiscal risk, etc. of the Republic of Lithuania).

9.4. Impact on the social environment (evaluation of a possible impact on different social groups and social relationships).

9.5. Impact on the public administration system (evaluation of a possible impact on the public administration system, intellectual resources of the public authorities and bodies).

9.6. Impact on the extent of corruption (evaluation of a possible impact on the extent of corruption).

9.7. Impact on the environment (evaluation of a possible impact on the environment).

9.8. Impact on the legal system (evaluation of a possible impact on the legal system).

10. With regard to the nature of a draft decision other aspects of its impact may be evaluated as well”.

In accordance with the Methodology of Evaluation of the Impact of Draft Decisions a composite part of an extended evaluation is a monitoring mechanism and reporting system: the criteria for evaluating implementation of a decision and indication as to which institution is to perform the monitoring of implementation and how and where the entities implementing a specific decision will have to report.

Law on the Government of the Republic of Lithuania

The Government of the Republic of Lithuania enforces laws and resolutions of the Seimas on implementation of the laws as well as the decrees of the President; co-ordinates the activities of the Ministries and other institutions of the Government, considers and approves strategic action plans of the Ministries, institutions of the Government, prepares the Long-Term Development Strategy of the State and submits it to the Seimas for approval; prepares a draft law on the State budget and submits it to the Seimas for approval; implements the State budget and submits the financial statement on budget implementation to the Seimas.

Law on Public Administration of the Republic of Lithuania

Law on Public Administration of the Republic of Lithuania defines the principles of activities of public administration entities, establishes the grounds of administrative regulation, provision of public services and internal institutional administration and defines the administrative procedures and duties in considering and making decisions with regard to applications and complaints (hereinafter applications) of different individuals.

Article 7 of the Law provides for the obligation to consult on issues relating to administrative regulation organisations representing the interests of an appropriate section of the public (associations, trade unions, public organisations, representatives of other NGOs) and, in cases provided for by the law, with the population as well. Unless the law provides otherwise, the methods of consultation shall be chosen by the public administration institution at its own discretion.

Law on Local Self-Government of the Republic of Lithuania

The purpose of the Law on Local Self-Government is to encourage and develop local self-government as the basis for democratic development of the State. Article 4 of the Law sets forth the principles of local self-government, including public participation in the drafting of decisions and decision-making, adjustment of interests of the community and individual residents of municipality, publicity and responsiveness to public opinion.

Plan of Measures of 2005-2006 for the Implementation of Public Administration Development Strategy for 2010 (2005).

Plan of Measures of 2005-2006 for the Implementation of Public Administration Development Strategy for 2010 (2005) contains the following measures related to the area under discussion:

- Draft the following amendments to the legal acts and submit them for the approval of the Government:
- Republic of Lithuania Law on Civil Service of the Republic of Lithuania (amends the provisions for linking of the evaluation of annual performance of a civil servant to the contribution of the civil servant in question to the implementation of institutional objectives and tasks and the provisions for linking in-service training to the evaluation of civil servants – Measure 1.2.3);

- Methodology of the Evaluation of the Impact of Draft Decisions (amends provisions establishing the obligation of the public authorities and bodies to consult the interest groups to be affected by decisions as well as a mechanism of consultation – Measure 1.3.3);
- Law on Local Self-Government of the Republic of Lithuania (amends provisions for planning of municipal activities in line with the long-term development strategy of the municipalities, the one where development of individual sectors while planning financial and other indicators would be coordinated – Measure 3.1.3; determining ways for the representatives of local communities to exercise their right of participation in decision-making – Measure 3.3.2).
- Organise discussions, seminars and other events to disseminate information about opportunities to participate in decision-making that are open to the population (Measure 3.3.3); use the mass media to encourage the population to participate in decision-making (Measure 3.3.4).
- Prepare and submit to the Government a draft strategy for the training of civil servants in 2007-2010 (Measure 4.1.2).
- Initiate the preparation of training/in-service training programmes for civil servants: preparation of strategic plans (Measure 1.2.5); preparation of the result-oriented management training programme (Measure 1.2.6); public relations and communication with the public (Measure 1.3.9); inter-institutional cooperation.

The Draft Plan of Measures of 2007-2010 for the Implementation of Public Administration Development Strategy for 2010 is to be prepared by 1 July 2006 and submitted to the Government in line with the procedure as set forth by the legal acts.

Institutional Assessment

The following ministries are established in the Republic of Lithuania: Ministry of Environment, Finance, National Defence, Culture, Social Security and Labour, Transport and Communications, Health, Education and Science, Justice, Economy, Foreign Affairs, Interior. Every ministry is responsible for implementation of state policies and international commitments within the area of its competence. The Ministry of Environment is responsible for coordination of implementation of the UN environmental conventions, while the Ministry of Interior – for coordination of implementation of the public administration strategy, the Office of the Government – for strategic planning and adjustment of inter-institutional programmes to the national Long-Term Development Strategy.

The Law on the Government stipulates that the Government or Prime Minister, when needed, may form committees and commissions. The governmental committees and commissions debate:

- Concepts of new regulatory acts;
- Draft strategies and long-term programmes;
- Various issues or points of contention;
- Disputes arising during the adjustment of draft legal acts embracing the competences of several ministries;
- Important issues may be debated before the cabinet meetings.

It is the Prime Minister, ministers, permanent secretary of the Government, representatives of other public and municipal authorities, NGOs, and academics that are members of governmental committees and commissions which are usually chaired by the Prime Minister or another appointed member of the Government. Ministers may participate in the sitting of any committee or commission irrespective of whether or not they are members of that committee and commission.

In order to analyse and solve problems arising in different areas the following governmental standing committees and commissions were established by Government resolutions in 1999-2002:

- Committee of Strategic Planning
- Committee of Management Reforms
- Committee of Finance and Economy
- Committee of Social Affairs
- Committee of Transit
- Information Society Development Commission
- Science and Technologies Commission
- National Commission for Sustainable Development
- Education and Science Commission

According to the data provided on the website of the Government (www.lrvk.lt, accessed on 06/01/2006), it was the Committee of Strategic Planning, Information Society Development Commission and Committee of Transit that were most active in 2001-2004.

Environmental issues are debated at the Committee of Social Affairs. The committee members are: Minister of Social Security and Labour (chair); Minister of Culture; Minister of Health; Minister of Education and Science; Minister of Environment. Besides the committee members, representatives of the ministries concerned, i.e. ministers or their authorised vice-ministers and, where needed, other persons may participate in the sittings of the Committee.

The statute and composition of the National Commission for Sustainable Development was approved by the Government Resolution in 2000 and last updated in 2005. The main task of the Commission was to contribute to ensuring implementation of the main principles of sustainable development as set forth by the Declaration of the UN Conference on Environment and Development of 1992 and Agenda 21. The Commission is chaired by the Prime Minister and his deputies are the Minister of Environment, the Minister of Social Security and Labour and the Minister of Economy. Representatives of all the ministries concerned, the President's office, education and science establishments and NGOs are also members of the Commission.

Conclusions and Recommendations

When transposing requirements of the Rio Conventions into the sectoral strategies and action plans, not sufficient attention is paid to cross-sectoral relations. Criteria for the assessment of the measures implemented are fragmentary, related to priorities of particular sector and do not include integrative criteria of the result (according to the programme goal) and effect (according to the strategic goal).

The Strategic Planning Methodology (version of 2004) defines the system of the national planning documents as an essential precondition for developing and implementing cross-sectoral (inter-institutional) strategies and programmes which are adequate to the requirements of the Rio Conventions. The Methodology defines only general principles for coordination of the inter-institutional programmes but there are no methodological guidelines for their implementation in practice. Criteria as to in what cases an inter-sectoral (inter-institutional) programme must be developed are not defined as well.

Cross-sectoral requirements of Rio Conventions should be implemented not only at the national but also at the municipal level; therefore they must be integrated into municipal strategic development plans. The Law of the Republic of Lithuania on Regional Development provides that municipalities may develop strategic development plans but in the most Lithuanian municipalities strategic planning still is not introduced.

The Methodology for Assessment of the Draft Decision promotes a systemic approach and determines assessment criteria of decision impact on various fields; on the other hand, it is not defined how mutual relations between the fields will be taken into account which are important in evaluating results of cross-sectoral (inter-institutional) programmes.

There is a legal basis for the provision of information on draft legal acts, but the public is not encouraged to be interested in the activities of the Government and municipal institutions.

To ensure an optimal solution based on comprehensive information about the possible impact of the decision, it is necessary to provide more favourable conditions to involve into discussion not only interested institutions but also other groups (e.g. business and non-governmental organisations) whose activities will be affected by the decision. It is also necessary to develop abilities of civil servants to assess possible impact of the draft decisions. The Strategy for the Public Administration Development until 2010 provides a comprehensive analysis of the sector reflects properly problems formulated in the thematic reports of 3 Rio Conventions. However, a problem of inter-institutional cooperation both in the Strategy and in a corresponding activity plan is associated only with individual competencies of civil servants and the personnel management issues; no measures are defined at the institutional level.

Permanent committees and commissions acting according to Law on the Government may be an effective tool for solving cross-sectoral problems; unfortunately, not all of them function actively and efficiently. Special focus should be placed on the prospects of the National Commission on Sustainable Development.

Scientific Research and Experimental Development

Systemic Assessment

The Law on Science and Studies of the Republic of Lithuania sets forth the following definitions of scientific research and experimental development:

- **Fundamental scientific research** means experimental and/or theory work performed in particular to discover the substance of phenomena and observed reality without an objective of using at the time the results of the work for a particular purpose;
- **Applied scientific research** means experimental and/or theory work related to knowledge, first of all dedicated to the achievement of specific practical purposes or solution of tasks;
- **Experimental development** (otherwise – applied scientific activities) means systematic work based on the knowledge stemming from scientific research and practical experience with the purpose of developing new materials, technologies, products and equipment.

Law on Science and Studies of the Republic of Lithuania “sets forth the state regulation framework of the activities of science and studies establishments” and “principles of funding of studies, scientific research, experimental development and scientific research establishments.”

The present chapter covers general aspects of the documents on scientific research and experimental development while focusing on the prospect of applied research:

- National Long-Term Development Strategy (2002);
- National Sustainable Development Strategy (2003).

Development of science, technologies and innovations is more extensively covered by special documents:

- Priority Directions for Lithuanian Scientific Research and Experimental Development (2002)
- Long-Term Strategy for Scientific Research and Experimental Development (2003);
- Programme of Implementation of the Provisions of the White Book of Lithuanian Science and Technologies (2003)
- Programme of Development of High Technologies (2003)
- Business Innovation Programme (2003) and Measures of Implementation of the Business Innovation Programme for 2003-2006

The activities related to the implementation of science policy are defined by the Programme of the Government of the Republic of Lithuania for 2004-2008. The measures of the Programme are transferred into the programmes of respective ministries and subordinate bodies.

National Long-Term Development Strategy

The National Long-Term Development Strategy that "science and education will continue to be a priority sphere in the development of the country." One of the priorities of development of the State is scientific research for sustainable development of the country (page 19).

"When carrying out research work with a view to attaining the country's sustainable development and conformity with the demands of the national economy, promoting interaction between science and business and ensuring speedier progress of the country:

- to create a system of research orders, to expand applied research and research aimed at creating and introducing new flexible technologies, to develop applied scientific activities;
- to conduct financing of research by tenders, when financing priority research programmes to link the financing of other programmes with the preservation of the country's scientific competence;
- to promote research quality having regard to the common European research area; to launch projects common with other countries, to carry out research on the international scale."

In the **energy** sector it is expected "to introduce in the production processes modern technologies and energy conservation measures; to strengthen scientific, information, educational and consultative activities."

In the **rural and agricultural development** sector it is intended "to create a common intellectual development system of agriculture, which includes the areas of science, studies, vocational continuing education and consultation."

National Strategy for Sustainable Development

The National Sustainable Development Strategy stipulates:

- "to ensure systematic development of science and technologies creating preconditions for development of an information society based on science, advanced and environmentally-friendly technologies and innovations (p. 250.5);"
- "to pursue research on national strategic development, analyse and assess on-going changes, foresee sustainable development trends (p. 251.10)."

Priority Directions for Lithuanian Scientific Research and Experimental Development

Priority Directions for Lithuanian Scientific Research and Experimental Development in 2002-2006 single out "scientific research to ensure quality of human life:

- high quality, safe and ecological food technologies;
- changes of ecosystems and climate."

The scientific research planned for the development of the knowledge society sets as its priorities "citizens and management in the knowledge society."

Long-Term Strategy for Scientific Research and Experimental Development

The main purpose of the Long-Term Strategy for Scientific Research and Experimental Development is to strengthen the scientific and technological potential of the country, to seek that it be used as effectively as possible in order to make the progress of the country faster and increase competitiveness with regard to limited Lithuanian resources.

The Strategy as well as the National Long-Term Development Strategy embraces the period until 2015. The Programme of Implementation of the Provisions of the White Book of Lithuanian Science and Technologies covers the 1st stage of implementation of the Strategy (2003-2005).

Programme of Implementation of the Provisions of the White Book of Lithuanian Science and Technologies

The Programme of Implementation of the Provisions of the White Book of Lithuanian Science and Technologies sets out as its main purpose "to seek coordinated development of the State by ensuring long-term systemic development of science and technologies, to provide conditions in Lithuania for creating a society based on scientific research, technological development and innovations." One of the directions of implementation of the programme is "continuous strategic research of the development of the country allowing for an objective analysis and evaluation of its situation, to foresee a prospective course and ways of further development."

The tasks of the Programme stipulate that "a public system of scientific research establishments should be more targeted towards applied research" (p. 11.5); "to develop continuous scientific research (social and humanitarian sciences) needed for preparation of the Long-Term Strategy for Scientific Research and Experimental Development resulting in the identification of the interconnections of economic, social, cultural and political factors" (p. 11.9); "to develop the knowledge society: to ensure integration of science, education and economy, develop the principle of life-long learning, encourage public involvement (p. 11.16)."

Programme of Development of High Technologies

The purpose of the Programme of Development of High Technologies 2004-2006 is to expand the production branches of high technologies already existing in Lithuania, including biotechnology, mechatronics, laser technologies, information technologies, nanotechnologies and electronics.

Business Innovation Programme

The purpose of the Business Innovation Programme is "to increase the competitiveness of Lithuanian industry and business by providing a favourable environment for the renewal of existing companies, founding of new modern companies, for companies to use Lithuanian and international scientific and technological potential in order to create high added value and be able to compete in the global market." The main tasks of the Programme:

- "5.1. to promote innovations, boost awareness of the public in the area of innovations;
- 5.2. to encourage cooperation between the scientific and business community;
- 5.3. to strengthen the framework of scientific research and technologies and increase its effectiveness;
- 5.4. to improve the financial environment of innovations and develop the support infrastructure;

5.5. to coordinate the activities of the institutions building the policy of the development of innovations, scientific research and technologies, boosting their administrative capacity.”

Along with the Business Innovation Programme the measures of its implementation for 2003-2006 have been approved as well. The Ministry of Economy as well as the Ministry of Education and Science coordinates and controls implementation of the Business Innovation Programme.

Programme of the Government of the Republic of Lithuania for 2004-2008

The Programme of the Government of the Republic of Lithuania of 2004-2008 sets forth the following:

- “In order to ensure more effective coordination and implementation of scientific research, experimental development and innovations policy, the relevance of founding a national agency for the development of technologies and innovations and innovations foundation has to be analysed, the results and findings of the analysis must be submitted to the Government of the Republic of Lithuania” (2006, the 2nd quarter). Responsible institutions: Ministry of Economy, Ministry of Education and Science.”
- “to reform the model of education funding, to allocate funds for a state contract, funding of education by way of tender and as foreseen in the Programme, to encourage better quality of scientific research and its application, to develop new technologies resulting in new jobs. To carry out long-term investments into fundamental science research: to prepare the Programme of Implementation of the 2nd Stage of the Long-Term Strategy for Scientific Research and Experimental Development (2006-2009) and implement the Programme (2005, the 4th quarter – Preparation, 2008, the 4th quarter – Implementation). Responsible institutions: Ministry of Education and Science, Ministry of Environment, Ministry of Health, Ministry of Transport and Communications, Ministry of Economy, Ministry of Agriculture, Information Society Development Committee under the Government of the Republic of Lithuania.”
- “to identify priority directions of Lithuanian scientific research and experimental development as approved by Resolution No. 1182 of 19 July 2002 (2006, the 4th quarter) of the Government of the Republic of Lithuania. Responsible institutions: Ministry of Education and Science, Ministry of Environment, Ministry of Finance, Ministry of National Defence, Ministry of Health, Ministry of Transport and Communications, Ministry of Economy, Ministry of Agriculture, Information Society Development Committee under the Government of the Republic of Lithuania.”
- “to adjust the Programme of Development of High Technologies as approved by Resolution No. 1645 of 22 December 2003 (2006, the 1st quarter) of the Government of the Republic of Lithuania. Responsible institution: Ministry of Education and Science.”

Institutional Assessment

The present chapter covers competencies of the most important institutions in the system of science and studies:

- Ministry of Education and Science of the Republic of Lithuania
- Agency for International Science and Technology Development Programmes in Lithuania
- Lithuanian State Science and Studies Foundation
- Science Council of Lithuania
- Lithuanian Academy of Sciences
- Public organisations

Ministry of Education and Science of the Republic of Lithuania

The Ministry of Education and Science carries out the functions of state management in the areas of education, science and studies, as delegated by the laws and other legal acts, and implements state policies in these areas.

The Statute sets forth the tasks of the Ministry of Education and Science in the area of development of science and technologies:

“5.2. to form and implement state policies of scientific research and experimental development and studies (higher education, preparation of scientists, enhancement of qualifications of specialists with higher education and their re-qualification);

5.3. to coordinate the activities of Lithuanian education and studies institutions;

5.4. to organise state promotion and regulation in the area of science and studies of intellectual creation.”

When implementing its tasks the Ministry of Education and Science shall:

“6.17. plan the appropriations from the Republic of Lithuania state budget for education and studies institutions identifying appropriations for each state higher school;

6.18. organise the evaluation of the performance of science and studies institutions;

6.20. order and co-ordinate scientific research contracted by the State in all areas;

6.21. after the approval by the Science Council of Lithuania, submit to the Government of the Republic of Lithuania proposals as to the development of priority directions of science and technologies.”

On 1 April 1998, the Department of Science and Studies was founded under the Ministry of Education and Science and authorised to implement state policies in the areas of science, studies and technological development. Starting in 2006, the Department was reorganised into the Department of Studies and the Department of Science and Technologies consisting of the Science and Technologies Division and the International Science Programming Division

Other ministries

Applied science research is a composite part of the activities by other ministries taking part in the implementation of the UN environmental conventions, as defined in their statutes.

The Ministry of Environment “organises and coordinates scientific research connected to natural resources, their use and restoration and environmental protection and organises within its competence other applied science research, funding of applied science programmes and projects, co-ordinates their implementation, encourages innovations.”

The Ministry of Transport and Communications “within its competence encourages the progress of innovations, takes part in preparation of target research programmes.”

The Ministry of Economy “contributes to the creation of the information society, common European research area”; “submits to the Government of the Republic of Lithuania proposals as to the directions of development of the economy and technological sciences.”

The Ministry of Agriculture “takes part in the building and implementation of policies of applying more sophisticated technologies in agriculture, the food industry and fisheries”; “manages the funding and implementation of research programmes and projects, encourages innovations.”

Agency for International Science and Technology Development Programmes

The Agency for International Science and Technology Development Programmes in Lithuania was founded in 2002 by the Order of the Minister of Education and Science. The Agency takes part in the formation and implementation of research and technological development, innovation policies, submits proposals regarding the drafting and improvement of respective laws and other legal acts.

The Agency is responsible for the administration of the following:

- European research and development and cooperation programme Eureka;
- European cooperation in the field of Scientific and Technical Research (COST);
- European Union Sixth Framework Programme for Research and Technological Development and Demonstration and the EURATOM programme;
- Activity of the Joint Research Centre;
- EU European Security Research Preparatory Action;
- European Union Seventh Framework Programme for Research and Technological Development and Demonstration.

The Agency for International Science and Technology Development Programmes in Lithuania analyses the implementation of European research and technology development programmes and the effectiveness of funding as well as contributes to the promotion of science.

Lithuanian State Science and Studies Foundation

The Lithuanian State Science and Studies Foundation founded in 1993 is a budgetary institution and the founder of the Foundation is the Government of the Republic of Lithuania. The objective of the Foundation is to encourage scientific research and experimental development.

Among other things the Foundation allocates money to implement its tasks for the following purposes:

- “7.1. implementation of scientific research and experimental development projects in line with priorities of Lithuanian scientific research and experimental development as approved by the Government of the Republic of Lithuania and the projects under the programmes approved by the Government of the Republic of Lithuania, if the foundation is allocated money for the implementation of scientific research and experimental development projects;
- 7.2. implementation of scientific research and experimental development programmes relevant to the state and initiated by the Foundation;
- 7.3. implementation of scientific research and experimental development projects proposed by scientist groups or individual scientists;
- 7.4. scientific research and experimental development projects of science and studies institutions carried out according to international agreements, if these projects are not funded by international organisations and foundations and if the international agreements stipulate partial use of national funds;
- 7.5. scientific research and experimental development projects as contracted by science and studies institutions ordered by business entities if the projects are partially financed by the business entity;
- 7.6. as state aid to economic entities carrying out scientific research and activities of applying their results in economic activities.”

Science Council of Lithuania

In 1991-2003, the Science Council of Lithuania carried out the functions of self-governance of the science and studies system. In 2003, it became a state institution founded on a proposal of the Government by the Seimas with its statute approved by the Parliament. The Science Council of Lithuania consists of representatives of academics and business interest organisations and state institutions.

The Science Council of Lithuania is an advisor of the Seimas and the Government on science, studies and experimental development policies and takes part in the preparation of all Lithuanian science and studies legal acts and examines some of them, where needed. The Council has six standing commissions: Science Strategy and Management; Science Priorities and Evaluation; Scientist Qualifications; Studies; Financing; Business, Science and Studies Cooperation.

Lithuanian Academy of Sciences

The Lithuanian Academy of Sciences is a budgetary institution uniting outstanding Lithuanian scientists and foreign scholars whose work is connected to Lithuania. The Academy functions in line with its Statute as approved by the Seimas.

The Lithuanian Academy of Sciences has the following goals:

- to gather scientific capacity to solve major problems of cultural, economic, linguistic, scientific, economic and social progress of Lithuania;
- to encourage and maintain a high level of scientific research and studies in Lithuania;
- to foster the personality of scientists and to act as an intellectual centre for Lithuanian scientists;
- to encourage and conduct research common to different disciplines as well as fundamental research;
- to encourage and facilitate cooperation of scientific centres in Lithuania and other countries;
- to be a scientific expert on the issues of science and higher education, technology, economy, culture, social development, environmental protection, health care and other issues.

The Lithuanian Academy of Sciences has five science divisions: Humanities and Social Sciences; Mathematical Physical and Chemical Sciences; Biological, Medical and Geosciences; Agricultural and Forestry Sciences; Technical Sciences.

Associations

The Lithuanian Scientific Society is a voluntary, self-governing, independent association of scholars, scientific organisations and other science and studies institutions. Among other things its goals are the development of fundamental and applied research taking into account the needs of the Lithuanian economy and culture; participation in expert assessment of scientific national and other programmes; determination and promotion of promising scientific trends and independent development of science. The budget of the Lithuanian Scientific Society consists of the admission and annual membership fee, donations, income from publications, scientific, technological and other economic activities, other income.

The Conference of Lithuanian Science Institute Directors is a public organisation consisting of directors of state science institutes and university science institutes. The Conference coordinates the inter-relations among the institutes as well as ties with the state and municipal authorities and is expert on the issues of studies, research and experimental development policy. The state may support the activity of the Conference of Lithuanian Science Institute Directors.

The Conference of Lithuanian University Rectors is a public organisation made up of the rectors of higher education universities. The Conference coordinates the interrelations among the universities as well as ties with the state and management and municipal institutions and is expert on the issues of studies, research and experimental development policy. The state may support the activity of the Conference of Lithuanian University Rectors.

The Conference of Lithuanian College Heads is a public non-profit organisation uniting the headmasters of Lithuanian higher education non-university schools. The Conference coordinates the activities of the Lithuanian colleges in preparing qualified specialists for the changing Lithuanian labour market.

The Lithuanian Catholic Academy of Science is a public organisation uniting Lithuanian and émigré Lithuanian scientists of Catholic orientation. Its activities may be supported by the State.

The Academy of Applied Sciences of Lithuania is a public organisation with the purpose of uniting scientists and researchers interested in applied sciences, research and other creative work. Its objective among others is the development of applied sciences in order to create new products

and technologies and to solve problems of economics, education, culture, protection of the environment, labour, health and problems of other sectors; a priority task in the area of technology is the solution of problems of energy, especially renewable sources and alternative energy.

Commission of Science, Technologies and Innovation Development

The Commission of Science, Technologies and Innovation Development was set up Resolution No. 366 of 4 April 2005 (replacing the Commission of Science and Technologies) of the Government of the Republic of Lithuania.

The task of the Commission is to coordinate the actions of the institutions taking part in the forming and implementing of science, technologies and innovation development policies, creating conditions for the rapid increase of state scientific potential and economic competitiveness. The Commission analyses strategic issues of the development of Lithuanian science, technologies and innovations related to the formation, implementation and coordination of state policies in these areas, submits proposals to the Government, ministries and governmental agencies when making decisions on the above-mentioned issues.

The Commission of Science, Technologies and Innovation Development is headed by the Prime Minister; his deputies are the Minister of Education and Science and the Minister of Economy. Moreover, the Minister of Finance, the Minister of National Defence and the Minister of Agriculture are among the members of the Commission. The scientific institutions are represented in the Commission by the President of the Conference of Lithuanian Science Institute Directors, the President of the Science Council of Lithuania, the President of the Lithuanian Academy of Sciences and the President of the Conference of Lithuanian University Rectors. Business is also represented in the Commission.

Conclusions and Recommendations

In solving cross-sectoral problems related to 3 Rio Conventions (sustainable development) the cooperation of research and governmental institutions should be promoted.

It is important to develop the abilities of civil servants to identify strategic areas whose development requires scientific research. The need of scientific background for the strategic decision making should be formalised through the Strategic Planning Methodology.

Scientific institutions should be encouraged to include interdisciplinary applied research into their plans through determining relevant state priorities and evaluation criteria, improving system of the state requests, etc. A targeted state programme for sustainable development research should be established as a precondition to develop specific projects.

Training of Civil Servants

Systemic Assessment

The following legal acts govern the training of civil servants:

- Law on Civil Service of the Republic of Lithuania (1999, version in force 2004);
- Resolution of the Government on the Approval of the 2002-2004 Strategy for the Training of Civil Servants (2002).

Republic of Lithuania Law on Civil Service

The Law defines the types of civil service training (Article 45): initial training and in-service training (continuous studies, development of special professional knowledge and improvement of administrative skills and abilities); funding of training of civil servants (Article 46).

The Resolution of the Government on the Approval of the 2002-2004 Strategy for the Training of Civil Servants

The Resolution sets forth priority training targets and priority training groups. The ability to solve problems relating to implementation of priority objectives of the Government may be mentioned as one of priority training directions, while civil servants responsible for implementation of the institutional strategic programmes may be named as one of priority training groups.

The procedures for programme approval and arrangement of training, general requirements for training programmes and the procedure for approval of the establishments for in-service training of civil servants are set by the orders of the Minister of Interior as follows: On Amendment of Order No. 340 the Minister of Interior of 11 July 2002 of the Republic of Lithuania. On the Approval of the Rules of Procedure for the Arrangement of Training of Civil Servants, On Approval of the Requirements for the Contents of the Programmes of Training of Public Servants, On the Approval of the Rules of Procedure for Approval of the Establishments of In-Service Training of Civil Servants.

Experts, including scholars and practitioners, are used to examine the programmes. You may find information on the experts on the website of the Civil Service Department www.vtd.lt.

The money allocated for the training of civil servants (starting with 1 January 2005) shall make up at least 1% and no more than 5% of the appropriations earmarked for the remuneration of civil servants. The costs of arrangement of business trips, seminars, conferences, courses, training, and lectures are also included in the amount. The money from public and municipal budgets earmarked for the training of civil servants is first directed to finance priority training groups of civil servants.

Every public administration body (authority) is supposed to provide an annual training plan of civil servants based on the assessed staff training needs. The applications for training are submitted to the establishments of in-service training of civil servants included into the list of the establishments of in-service training of civil servants as approved by the Minister of Interior. If the directory of training programmes does not contain the topics of interest, the authorities may order internal training of civil servants.

Institutional Assessment

The system of training of civil servants consists of the Ministry of Interior, the Civil Service Department under the Ministry of Interior, other public and municipal authorities and bodies as well as establishments for in-service training of civil servants approved in line with the procedure as set forth by the Minister of Interior.

In 2005, the directory of the Civil Service Department are listed 197 programmes classified into four types: initial training, in-service training, training of 18-20th grade civil servants, computer literacy courses.

According to the data of the National Long-Term Development Strategy (2005), 18,454 civil servants (50%) had training in 2002, 19,394 (60%) in 2003, and 20,297 (80%) in 2004.

Conclusions and Recommendations

Among the in-service training programmes for civil servants provided by the Civil Service Department there are no programmes devoted to the topics of cross-sectoral planning, implementation of inter-institutional programmes and horizontal issues of sustainable development as well. In implementing the management model of cross-sectoral programmes it would be desirable to initiate respective education programmes for officials of various levels and to register these programmes according to the legal acts regulating the in-service training of civil servants.

Public Information and Awareness Raising

Systemic Assessment

Education determines the ability of a person and society to efficiently solve multiple problems related to sustainable development. Formal and non-formal education, upgrading of qualifications of specialists of various fields and provision of information to the public should become the most important change initiative.

The concepts of formal and non-formal education and self-education are defined in the Law on Education of the Republic of Lithuania:

- **formal education** means education implemented according to programs confirmed in accordance with a procedure prescribed by the Government or its authorised institution, the completion of which results in the attainment of a primary, basic, secondary, post-secondary or higher education level and/or a qualification;
- **non-formal education** means education according to a variety of programs geared to satisfy individual educational needs, to provide in-service education and to provide for acquisition of an additional competence;
- **self-education** means continuous independent learning, based on information a person obtains from various sources (libraries, mass media, the Internet, museums, etc.) and practical experience.

The concept of the provision of information to the public is defined in the Law on Provision of Information to the Public of the Republic of Lithuania:

Provision of information to the public means an activity of providing public information to the public.

The importance of the provision of information to the public in forming a favourable opinion of the citizens and their involvement in considering, adopting and implementing decisions in the sphere of sustainable development on a various level (community, regional or national) as well as in choosing personal lifestyle should be singled out. The provision of information to the public and their involvement in the decision-making process helps to reach agreement, resolve conflicts that have arisen between the groups representing different interests or avoid them altogether.

In this Chapter, the following general strategic documents are discussed in the light of education development and its orientation towards sustainable development:

- National Long-Term Development Strategy (2002);
- National Sustainable Development Strategy (2003).

The general documents regulating the field of education are analysed with the view to sustainable development:

- Law on Education of the Republic of Lithuania (2003);
- Provisions of the State Educational Strategy for 2003-2012 (2003).

Special legal acts define the provisions related to environmental education and the provision of information to the public:

- Public Environmental Education Strategy and Action Plan of the Republic of Lithuania (1998);
- Description of the Procedure for the Provision of Environmental Information to the Public in the Republic of Lithuania (2005);
- Programme for Environmental Information and Promotion of Environmental Education for the Lithuanian Public.

Educational policy implementation in Lithuania is provided for in the Programme of the Government of the Republic of Lithuania for 2004-2008, whose measures are transposed into the plans of respective ministries and their subordinate institutions.

National Long-Term Development Strategy

It is specified in the National Long-Term Development Strategy that “science and education will continue to be a priority sphere in the development of the country.”

Within the context of sustainable development, an important task is to create an “effective, coherent, universally accessible and continuous education system, providing conditions for lifelong learning” (page 19):

- “to seek the establishment of universal secondary education accessible to all sections of the population irrespective of their age, social status, place of residence and linguistic environment”;
- “to implement the concept of continued learning, to increase the diversity of part-time studies; to develop a modern system of adult education and training, ensuring every resident of Lithuania opportunities to engage in lifelong learning, to acquire secondary education and professional qualifications, to upgrade one’s qualifications and re-skill”;
- “to shape modern competence of school and university teachers; <...> to involve social partners from different interest groups; to shape and deliver the standards for general capacities, trends and quality of studies; to adopt a modular approach in teaching; to speed up the introduction of information technologies in the spheres of education, science and studies.”

National Sustainable Development Strategy

The long-term, medium-term and short-term education and science development goals are defined in the National Sustainable Development Strategy:

- long-term goals: “to educate literate, independent, active and responsible members of the society, develop the intellectual potential of the society so that knowledge and science would ensure sustainable implementation of economic, social and environmental objectives” (paragraph 249);
- medium-term goals: “to ensure fast development of education, science and technologies, to achieve that education, science and the latest technologies would increase the international competitiveness of Lithuania in all spheres of life and would encourage the sustainable development of Lithuania” (paragraph 252);
- short-term goals: “to create economic and legal conditions for fast implementation of education and science system reform, to develop this system, to strengthen the impact of education and science on the sustainable development of the society and to improve the environmental education of the society” (paragraph 255).

Taking into consideration these goals, respective education development tasks and their implementation measures are defined in the National Sustainable Development Strategy.

The key measures for the achievement of the long-term goals are presented below:

- “to legalise the principles and aims of education in the documents regulating educational activities on various levels for the purpose of sustainable development, to seek that education would promote the creation of the knowledge society” (paragraph 251.1);

- “when required, to regularly update the educational programmes of various levels taking into consideration the most urgent problems that have arisen in the country, as well as the Eurointegration and globalisation goals” (paragraph 251.2);
- “to prepare and implement qualification upgrading programmes, based on the latest scientific achievements, for employees working in the educational system including sustainable development issues” (paragraph 251.3);
- “to create and introduce the methods of active teaching and learning, to promote integral teaching and learning that analyse current economic, social and environmental problems and encourage interdisciplinary studies” (paragraph 251.4);
- “to carry out scientific research concerning the educational curriculum and methodology as well as monitoring of orientation of education towards sustainable development” (paragraph 251.5);
- “to broaden the forms and means of flexible learning and flexible studies that create opportunities for working people to acquire and continue their education of whatever level (part-time (evening) learning and studies, distance learning and studies, non-consecutive studies, intensive studies, part-time doctoral studies and other)” (paragraph 251.6);
- “to provide opportunities for formal and non-formal lifelong learning to all members of the community” (paragraph 251.7).

Law on Education of the Republic of Lithuania

The Law on Education establishes the goals of the educational system, the principles of the educational system, the framework of institutions, activities and civil relationships as well as obligations of the State in the area of education.

One of the goals of education (Article 3) is “to reinforce the capability of society to ensure sustainable development of the country’s economic, environmental and human resources <...> and the advancement of a democratic state.”

One of the principles of the educational system (Article 5) that should be mentioned is “contextuality: the educational system is closely linked to the context of national economic, social and cultural development; it renews itself as this context does and meets the continuously changing needs of society.”

Provisions of the State Educational Strategy for 2003-2012

The provisions of the Strategy complement the National Long-Term Development Strategy, outline the goals of Lithuanian education development as well as measures required for their achievement and define the key qualitative and quantitative objectives on the grounds of which Lithuanian education development in 2003-2012 will be based and assessed.

One of the main objectives of education development set in the provisions of the Strategy should be mentioned: over the period 2003-2012, through the efforts of the state and the society “the quality of education satisfying the global needs of a person living in an open civic society and the market economy will be ensured.”

Implementation measures, which form preconditions for sustainable development in the field of education, provided for in the document (Chapter IV) specify that “a practical social activity shall be treated as a constituent part of general education”; “the interaction of the school and local community shall be strengthened and developed.”

To ensure the quality of education, the educational curriculum is updated and associated with new competences acquired by a person (paragraph 11. 1. 5):

- “a more consistent transition towards a new curriculum formation policy oriented towards the development of general abilities and fostering of values as well as the provision of competences necessary for a contemporary man, based not on conveyance and absorption of knowledge, but rather on its analysis, critical assessment and practical usage that closely link the educational curriculum with the practice of various fields, the problems and the search for ways of resolving them”;

- <...> “active public activity is becoming a constituent part of the educational curriculum”;
- “The educational curriculum is associated with the provision of values, general abilities and competences necessary for individual life and the life of the society” <...>;
- “The ways of conveying the educational curriculum are fully updated on all the educational levels. Independence and co-operation promoting active learning methods and the practice of individual activities are introduced.”

The competencies of the pedagogues play a significant role in attaining high quality education. It is stipulated in the provisions of the Strategy that plans are to improve the preparation and work of teachers (paragraph 11.3.2):

- “An integral system for preparing teachers and developing their qualifications oriented towards a changing role of a teacher in the knowledge society and the new competences and values essential for a contemporary teacher is created. In the process of creating the knowledge society, the role of a teacher is also changing: a teacher – the possessor and conveyor of knowledge is replaced by a teacher – the organiser of the learning process, the creator of learning opportunities, learning advisor, partner and intermediary between the student and various modern sources of information.”

Public Environmental Education Strategy and Action Plan of the Republic of Lithuania

The National Public Environmental Education and Action Plan was developed in 1998 with participation of representatives of various institutions – ministries, municipalities, education and science institutions, business and non-governmental organisations. The Strategy is based on provisions on education set in Chapter 36 of the United Nations Agenda 21.

The aim of public environmental education is “to shape the society which, rationally using and replenishing natural resources, protecting a healthy environment and cultural heritage for the future generations, would seek and manage to ensure sustainable development of the country.”

The priority areas of the Strategy were defined taking into consideration:

- target groups – environmental education of children and young people, professional development of officials who are making the decisions, preparation of specialists and environmental education of adults;
- environmental protection goals – water, air, soil, biotic protection, waste management, etc. – when implementing national economic development and social programmes.

Special goals and tasks were set for various types of institutions (groups of institutions) within the formal and non-formal education systems.

The providers of public information were invited to involve in their activities environmental education and provision of environmental information to public.

The Action Plan was prepared for the period of 1998-2002 and it was not updated afterwards. It is provided for in the Programme of the Government of the Republic of Lithuania for 2004-2008 to develop a draft amending Public Environmental Education Strategy of the Republic of Lithuania and to start implementing the United Nations Strategy for Education for Sustainable Development. Responsible institutions: the Ministry of Environment and the Ministry of Education and Science.”

By 2007, intentions are to draft and approve the National Strategy and Action Plan for Education for Sustainable Development with participation of all the interested ministries, education and science institutions, municipalities, non-governmental organizations, etc. The Action Plan will be drafted for the period of 2007-2014 and will be assessed in accordance with the indicators prepared by the UNEEC.

Description of the Procedure for the Provision of Environmental Information to the Public in the Republic of Lithuania

The Description defines the procedure to ensure the access to environmental information at the Governmental institutions and municipalities in order to make this information easily accessible and useful.

"2. Information on the environment – written, video, audio, electronic or any other information of material format on:

2.1. the state of environmental elements (air and atmosphere, water, soil and land, landscape and natural terrain including swamps, coastal and marine areas, bio diversity and its components including genetically modified organisms) and the interaction of these elements;

2.2. factors (materials, energy, noise, radiation or waste including radioactive waste, exhaustion, emission or any other exposure to the environment) that exert impact or may exert impact on the environmental elements listed in paragraph 2.1 of the Description;

2.3. activity or measures (including administrative measures, agreements on environmental issues, policies of various fields, legal acts, plans, programmes and reports) that exert impact or may exert impact on the environmental elements and factors listed in paragraphs 2.1 and 2.2 of the Description as well as activity or measures created for the protection of these elements;

2.4. expenses and the profit gained as well as other economic analysis and preconditions related to activity and measures specified in paragraph 2.3 of the Description;

2.5. the state of health and safety of people including contamination in the food chain, living conditions, the conditions of cultural objects and buildings, if they are affected or may be affected by the state of elements specified in paragraph 2.1 of the Description or the factors, activity or measures listed in paragraphs 2.2 and 2.3 of the Description."

The document regulates the preparation and provision of environmental information (Chapter II), the information that should not to be provided (Chapter III) and dissemination of environmental information and its quality (Chapter IV).

Programme for Environmental Information and Promotion of Environmental Education

The Programme was prepared by the Ministry of Environment for the utilization of EU Structural Funds in line with the Single Programming Document, Measure 1.3 Improvement of Environmental Quality and Prevention of Environmental Damage. It is based on the requirements stipulated in 90/313/EEC Directive on Free Access to Environmental Information and Orhus Convention (Convention on Access to Information, Public Participation in Decision-Making, and Access to Justice on Environmental Matters).

Priority areas:

- "to strengthen the provision of information through public and local authorities having in their disposition the information on environment upon request and on their own initiative by using various ways of information dissemination;
- to prepare and publish publications, brochures, posters and other informative publications seeking to better familiarise the society with the relevant issues on environment and involve it into the decision-making process in the sphere of environmental protection;
- to satisfy the interests of target groups so that the information on environment would be disseminated faster by employing modern information technology tools;
- to promote that the society and NGOs participate in environmental protection: it is essential that the public and local authorities would closely cooperate with NGOs and the society when implementing environmental education projects, information campaigns and promotions."

Priority actions in the period 2004-2006 are aimed at public environmental education, development of informing measures and improvement of the conditions for receiving comprehensive analytical information on the status of environment in Lithuania and its improvement.

It is provided for in the Programme of the Government of the Republic of Lithuania for 2004-2008 "to prepare a draft Strategy for the Implementation of the United Nations EEC Convention on Access to Information, Public Participation in Decision-Making, and Access to Justice on Environmental Matters in Lithuania (the 1st quarter, 2006)." Responsible institution: Ministry of Environment.

Institutional Assessment

Sustainable development of educational activity covers formal and non-formal education and self-education. Educational activity is carried out by a wide variety of institutions (groups of institutions) which have certain distinctive priorities, target groups, educational curriculum, methods and tools.

Here the functions of state administration institutions (ministries) – educating and providing information to the public – laid down in their regulations are reviewed.

Ministry of Education and Science of the Republic of Lithuania

The Ministry of Education and Science performs the functions, assigned to it by laws and other legal acts of the state management of education, science and studies and implements the state policy in these fields.

The goal of the Ministry of Education and Science in the field of education is “to shape and implement the state policy of formal and non-formal education ensuring a favourable attitude of the society towards education and creating conditions for lifelong learning in the constantly changing democratic society.”

Fulfilling the tasks assigned to it, the Ministry of Education and Science:

“6.11. shall approve the general educational curriculum of formal education, state education standards (except for those of higher education), vocational training standards, regulations regarding the study programmes, the criteria for the assessment of educational programmes and the procedure for its implementation”;

“6.23. shall commission non-formal adult education programmes and target projects and finance them.”

Other ministries

Education and provision of information to the public is a constituent part of the activities of other ministries participating in the implementation of the UN environmental conventions defined in their regulations.

The Ministry of Environment of the Republic of Lithuania “shall organise, within its competence, the provision of information on the status of the environment to the public; shall co-ordinate and organise, within its competence, the education and informing of the society, shall take care of the professional development of public servants and specialists working in the spheres within the competence of the Ministry; shall regularly draft and disseminate reports on the status of the environment in Lithuania, shall organise the preparation and publishing of manuals, yearbooks, digests of regulations, systematic collections, and other information publications on issues within the competence of the Ministry.”

The Ministry of Transport and Communications of the Republic of Lithuania: “shall inform the public about the activities of the Ministry related to issues within the competence of the Ministry.”

The Ministry of Economy of the Republic of Lithuania “shall inform the public about the activities of the Ministry related to issues within the competence of the Ministry.”

The Ministry of Agriculture of the Republic of Lithuania “shall participate in shaping and implementing the policy of science, education, and application of advanced technologies in agriculture, food industry and fishery.” The Ministry “shall participate, within its competence, in drafting the standards for training agricultural specialists, the programmes of basic vocational training, college and non-university education, shall perform the analysis of the demand for agricultural specialists, shall provide recommendations to educational institutions and the Ministry of Education and Science on their training; shall organise the professional development of farmers and agricultural system specialists and shall participate, within its competence, in drafting the programmes for up-

grading the qualifications of pedagogues working in agricultural colleges and agricultural schools. As well as other ministries, the Ministry of Agriculture informs the public about the activities of the Ministry.

Conclusions and Recommendations

Since 2005 the Ministry of Education and Science has been participating in the implementation of the Strategy for Education for Sustainable Development Education by the United Nations Economic Commission for Europe. By 2007 it is planned to develop and approve the National Programme for Education for Sustainable Development in cooperation with all interested ministries, scientific and educational institutions, municipalities, non-governmental organisations, etc. Its implementation will contribute to the public education and information tasks related to Rio Conventions. On the other hand, public awareness raising should be integrated into revised national Strategy for Biodiversity Conservation and Strategy for Implementation of Framework Convention on Climate Change.

RECOMMENDATIONS FOR PRIORITY ACTIONS

The goal of the project on National Capacity Self-Assessment for Global Environment Management was to identify the key problems in implementing multilateral environmental agreements in Lithuania. They must be integrated into the national legislation providing an efficiently functioning institutional setup, relevant management procedures as well as individual competences.

The requirements (mainly cross-sectoral) of 3 Rio Conventions assessed within the scope of the project are integrated into national legal acts and strategic planning documents, i.e. the National Long-Term Development Strategy (2002) and the National Sustainable Development Strategy (2003).

According to Programme of the Government for 2004–2008 there is included the revision of the Strategy for the Implementation of the Framework Convention on Climate Change (2006, the 2nd quarter), to carry out a study of biodiversity and to specify the Strategy for Biodiversity Conservation (2008, the 3th quarter). It should be noted that in order to develop the Strategy for the Implementation of the UN Convention to Combat Desertification <...> the Ministry of Environment should initiate a decision to define Lithuania as “country affected by desertification”.

The development of horizontal measures for the implementation of 3 Rio Conventions (i.e. scientific research and experimental development as well as public education and information) is also included into Programme of the Government for 2004–2008. It is important also to integrate these measures into revised national strategies for the implementation of Rio Conventions.

Pursuant to the conclusions of cross-cutting assessment it should be noticed that to successfully implement the requirements of 3 Rio Conventions and ensure a long-term effect it is necessary to improve the management model of cross-sectoral (inter-institutional) programmes and develop appropriate competences of civil servants. Legal preconditions for solving these problems are provided by the Strategic Planning Methodology, which is continuously improving according to the needs of changing situation, and other legal acts regulating the aspects of strategic planning and management.

Recommended actions are presented in the following table.

Objectives	Actions
1. To improve the Strategic Planning Methodology to address quality management in implementing multilateral environmental agreements.	1.1. To define planning procedures for cross-sectoral (inter-institutional) programmes according to the Strategic Planning Methodology; piloting of the procedures in the case of the Strategy for Biodiversity Conservation.
	1.2. To prepare methodological guidelines for cross-sectoral (inter-institutional) planning.
	1.3. To develop a staff training curriculum for cross-sectoral planning and sustainable development integrated into the in-service training system for civil servants.
2. To develop a coordination model for the cross-sectoral (inter-institutional) programmes related to the implementation of 3 Rio Conventions.	2.1. To define the institutional setup for coordinating cross-sectoral (inter-institutional) programmes.
	2.2. To establish administrative procedures to manage cross-sectoral issues (including monitoring and evaluation) in relation to Rio Conventions at the Ministry of Environment as a coordinating institution; piloting of the coordination model in the case of the Strategy for Implementation of Framework Convention on Climate Change.
	2.3. To develop a Quality Management System to ensure an efficient implementation of cross-sectoral (inter-institutional) programmes.
	2.4. To develop a staff training curriculum for the implementation of cross-sectoral (inter-institutional) programmes integrated into the in-service training system for civil servants.
	2.5. To generalize a coordination model of Rio Conventions for the implementation of the National Strategy for Sustainable Development.

The improvement of the model for the implementation of Rio Conventions in Lithuania is important in a broader context of sustainable development. Requirements of the conventions are adequate to the respective priorities of the National Sustainable Development Strategy, and the problems defined in the assessment report should be solved also in order to efficiently implement the Strategy.

General Provisions of the National Sustainable Development Strategy stipulate that “cross-sectoral barriers are major obstacles of sustainable development” (para 12). To achieve the goals of sustainable development it is necessary to develop and implement new models for cross-sectoral strategic planning, ensure proper communication among different institutions of public administration as well as their collaboration with business and social partners and scientific institutions. “Implementation of sustainable development principles is impossible without extensive public participation <...>” (para 13).

One of the sustainable development principles also states that “the development of different sectors and their branches must be based on modern scientific achievements, knowledge and advanced environment-friendly technologies” (para 24).

The development of the cross-sectoral (inter-institutional) management will ensure not only the efficient implementation and long-term effect of the 3 Rio Conventions but will contribute to the implementation of the National Sustainable Development Strategy and the public administration reform.

REFERENCES

Strategies

1. Resolution of the Parliament of the Republic of Lithuania on Approval of the Agricultural and Rural Development Strategy, 13 June 2000, No. VIII-1728, Vilnius
2. Resolution of the Parliament of the Republic of Lithuania Concerning National Education 2003-2012 Strategy, 4 July 2003 No. IX-1700, Vilnius.
3. Resolution of the Parliament of the Republic of Lithuania on approval of the National Energy Strategy, 10 October 2002, No. IX-1130, Vilnius.
4. Resolution of the Parliament of the Republic of Lithuania Concerning Approval of the National Environmental Protection Strategy, 25 September 1996 No. I-1550, Vilnius.
5. Resolution of the Parliament of the Republic of Lithuania on the National Long-Term Development Strategy, 12 November 2002, No. IX-1187, Vilnius.
6. Resolution of the Government of the Republic of Lithuania on Approval of the Long-Term Lithuanian Transport System Development Strategy up to 2025, 23 June 2005, No. 692, Vilnius.
7. Resolution of the Government of the Republic of Lithuania on Approval of Long-Term Science Research and Experimental Development as well as Approval of Lithuanian Science and Technologies White Book Implementing Programme. 22 December 2003 No. 1646, Vilnius.
8. Resolution of the Government of the Republic of Lithuania on the National Strategy for the Implementation of the United Nations Framework Convention on Climate Change, 25 October 1996, No. 1236, Vilnius.
9. Resolution of the Government of the Republic of Lithuania on the Long-Term Lithuanian Economic Development Strategy up to 2015, 12 June 2002, No. 853, Vilnius.
10. Resolution of the Parliament of the Republic of Lithuania on Approval and Implementation of the National Sustainable Development Strategy, 11 September 2003, No. 1160, Vilnius.
11. Resolution of the Government of the Republic of Lithuania on the Medium-Term Industry Development Policy and its Implementation Strategy, 5 July 2000, No. 789, Vilnius.
12. Resolution of the Government of the Republic of Lithuania on Public Environmental Education Strategy and Action Programme of Republic of Lithuania, 9 February 1998 No. 165, Vilnius.
13. Resolution of the Government of the Republic of Lithuania on Approval of Strategy of Training of Civil Servants for 2002-2004, 8 July 2002 No. 1073, Vilnius.
14. Resolution of the Government of the Republic of Lithuania on Approval of the National Strategic Waste Management Plan, 12 April 2002, No. 519, Vilnius.
15. Resolution of the Government of the Republic of Lithuania on Approval of Public Administration Strategy up to 2010, 28 April 2004 No. 488, Vilnius.
16. Order of the Minister of Environment and the Minister of Agriculture Concerning Approval of the Strategy and Action Plan for Conservation of Biodiversity, 21 January 1998 No. 9/27, Vilnius.
17. Order of the Minister of Environment Concerning Approval of the National Forestry Policy and Strategy for Its Implementation, 11 September 2002, No. 484, Vilnius.

Laws

18. Law of the Republic of Lithuania on Agricultural and Rural Development, 25 June 2002, No. IX-987, Vilnius.
19. Law of the Republic of Lithuania on Air Protection, 4 November 1999, No. VIII-1392, Vilnius.
20. Law of the Republic of Lithuania on Amateur Fishing, 15 July 2004 No. IX-2389, Vilnius.
21. Law of the Republic of Lithuania on Biological Fuel and Biological Oils, 18 July 2000, No. VIII-1875, Vilnius. Version in force – 5 February 2004.

22. Law of the Republic of Lithuania on the Care, Keeping and Use of Animals, 6 November 1997 No. VIII-500, Vilnius.
23. Law of the Republic of Lithuania on Education, 25 June 1991 No. I-1489, Vilnius. Version in force – 15 July 2004.
24. Law of the Republic of Lithuania on Electricity, 20 July 2000, No. VIII-1881, Vilnius. Version in force – 1 July 2004.
25. Law of the Republic of Lithuania on Energy, 16 May 2002, No. IX-884, Vilnius. Version in force – 24 June 2003.
26. Law of the Republic of Lithuania on Environmental Impact Assessment for Planned Economic Activities, 15 August 1996 No. I-1495, Vilnius. Version in force – 21 June 2005.
27. Law of the Republic of Lithuania on Environmental Monitoring, 20 November 1997, No. VIII-529, Vilnius. Version in force – 10 June 2003, No. VIII-529.
28. Law of the Republic of Lithuania on Environment Pollution Fee, 13 May 1999, No. VIII-1183, Vilnius. Version in force – 31 March 2005.
29. Law of the Republic of Lithuania on Environmental Protection enacted by the Supreme Council – Constituent Seimas of the Republic of Lithuania, 21 January 1992 No. I-2223, Vilnius. Version in force – 24 March 2005.
30. Law of the Republic of Lithuania on Fisheries, 27 June 2000 No. VIII-1756, Vilnius. Version in force – 15 July 2004.
31. Law of the Republic of Lithuania on Forests, 22 November 1994 No. I-671, Vilnius. Version in force – 15 February 2005.
32. Law of the Republic of Lithuania on Genetically Modified Organisms, 12 June 2001 No. IX-375, Vilnius. Version in force – 20 March 2003.
33. Law of the Republic of Lithuania on the Government, 19 May 1994 No. I-464, Vilnius. Version in force – 12 May 2005.
34. Law of the Republic of Lithuania on Heat Economy, 20 May 2003, No. IX-1565, Vilnius.
35. Law of the Republic of Lithuania on Hunting, 30 June 2002 No. IX-966, Vilnius. Version in force – 13 May 2005.
36. Law of the Republic of Lithuania on Land, 26 April 1994, No. I-446, Vilnius. Version in force – 21 February 2004.
37. Law of the Republic of Lithuania on Local Self-Government, 7 July 1994, No. I-533, Vilnius. Version in force – 14 April 2005.
38. Law of the Republic of Lithuania on Motorless Transport, 20 June 2000, No. VIII-1744, Vilnius. Version in force – 28 September 2004.
39. Law of the Republic of Lithuania on National Plant Genetic Resources, 9 October 2001 No. IX-533, Vilnius.
40. Law of the Republic of Lithuania on Plant Protection, 19 October 1995 No. I-1069, Vilnius. Version in force – 1 May 2004.
41. Law of the Republic of Lithuania on the Principles of the Activities of Transport, 29 April 2004, No. I-1863, Vilnius. Version in force – 19 May 2005.
42. Law of the Republic of Lithuania on Protected Animal, Plant and Fungi Species and Populations, 6 November 1997 No. VIII-499, Vilnius. Version in force – 11 December 2001.
43. Law of the Republic of Lithuania on Protected Territories, 9 November 1993 No. I-301, Vilnius. Version in force – 4 December 2001.
44. Law of the Republic of Lithuania on Public Administration, 17 June 1999 No. VIII-1234, Vilnius. Version in force – 9 June 2005.
45. Law of the Republic of Lithuania on Public Information, 29 August 2000 No. VIII-1905, Vilnius.
46. Law of the Republic of Lithuania on Ratification of the United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, 3 July 2003, No. IX-1684, Vilnius.

47. Law of the Republic of Lithuania on Ratification of Kyoto Protocol of United Nations Framework Convention on Climate Change, 19 November 2002 No. IX-1203, Vilnius.
48. Law of the Republic of Lithuania on Regional Development, 20 July 2000 No. VIII-1889, Vilnius. Version in force – 15 July 2004.
49. Law of the Republic of Lithuania on State Service, 8 July 1999 No. VIII-1316, Vilnius. Version in force – 13 December 2004.
50. Law of the Republic of Lithuania on Territorial Planning, 12 December 1995 No. I-1120, Vilnius. Version in force – 28 September 2004.
51. Law of the Republic of Lithuania on Waste Management, 29 April 2004, No. VIII-787, Vilnius. Version in force – 28 June 2005.
52. Law of the Republic of Lithuania on Water, 21 October 1997, No. VIII-474, Vilnius.
53. Law of the Republic of Lithuania on Wild Fauna, 6 November 1997 No. VIII-498, Vilnius. Version in force – 14 April 2005.
54. Law of the Republic of Lithuania on Wild Flora, 15 June 1999 No. VIII-1226, Vilnius. Version in force – 17 February 2004.

Decisions

55. Resolution of the Parliament of the Republic of Lithuania Concerning Ratification of the United Nations Convention on Biodiversity, 3 July 1995, No. I-685, Vilnius.
56. Resolution of the Parliament of the Republic of Lithuania on Ratification of the United Nations Framework Convention on Climate Change, 23 February 1995, No. I-812, Vilnius.
57. Resolution of the Government of the Republic of Lithuania on Amendment of 22 April 1999 No. 1175 Decision of the Government of Republic of Lithuania on Provision of Environmental Information to the Public 21 February 2005 No. 198, Vilnius.
58. Resolution of the Government of the Republic of Lithuania Concerning Formation of a Commission on Conservation of Biodiversity, 13 December 1999 No. 1395, Vilnius.
59. Resolution of the Government of the Republic of Lithuania on Approval of 2005–2006 Implementing Measures of Public Administration Strategy, 21 February 2005 No. 197, Vilnius.
60. Resolution of the Government of the Republic of Lithuania on Approval Methodology on Assessment of Decision Impact and its Implementation, 26 February 2003 No. 276, Vilnius.
61. Resolution of the Government of the Republic of Lithuania on approval of Prioritized Directions of Science Research and Experimental Development 19 July 2002 No. 1182, Vilnius.
62. Resolution of the Government of the Republic of Lithuania Concerning the Programme of the Government of Republic of Lithuania, 14 December 2004 No. X-43, Vilnius.
63. Resolution of the Government of the Republic of Lithuania on Programme on Innovations in Business, 15 July 2003 No. 911, Vilnius
64. Resolution of the Government of the Republic of Lithuania on Approval Programme on Development of High Technologies, 22 December 2003 No. 1645, Vilnius
65. Resolution of the Government of the Republic of Lithuania on Approval of the Programme on Promotion of Biofuel Production and Use for 2004-2010, 26 August 2004, No. 1056, Vilnius.
66. Resolution of the Government of the Republic of Lithuania Concerning Approval of the Single Programming Document of Lithuania for 2004-2006, 2 August 2004 No. 935, Vilnius.
67. Resolution of the Government of the Republic of Lithuania on Summary of Corrected and Revised National Energy Efficiency Programme Implementing Directions for 2001-2005, 19 September 2001 No. 1121, Vilnius.
68. Resolution of the Government of the Republic of Lithuania on Approval of Strategic Planning Methodology, 6 June 2002 No. 827, Vilnius.

