



NATIONAL FOUNDATION FOR ENVIRONMENTAL
PROTECTION

**NATIONAL CAPACITY SELF-
ASSESSMENT FOR GLOBAL
ENVIRONMENTAL MANAGEMENT
(NCSA)**



United Nations Environment Programme

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CONTENTS

1 INTRODUCTION

1.1 Justification of the need for preparing self-assessment for global environmental management in Poland (NCSA) in Poland

1.2 National aims of NCSA preparation

1.3 The process of NCSA preparation

2 IDENTIFICATION OF THE PRIORITY ISSUES

2.1 Present conditions for implementing the Global Conventions by Poland

2.1.2 The existing conditions for observing obligations resulting from the UN Framework Convention on Climate Change and Kyoto Protocol

2.1.1.1 External conditions, including those resulting from the Climatic Convention itself and the Kyoto Protocol

2.1.1.2 Internal conditions

2.1.2 The existing conditions for fulfilling the obligations resulting from the Convention of Biological Diversity and Ramsar Convention by Poland

2.1.3 The existing conditions for fulfilling by Poland obligations resulting from the Convention on desertification in countries affected by major droughts and/or desertification, particularly in Africa.

2.2 Identification of the priorities within three thematic fields pertaining to the Global Conventions

2.2.2. Identification of the priorities related to implementation of the UN Framework Convention on climate change (UN FCCC) and Kyoto Protocol

2.2.3. Identification of the priorities related to implementation of the Convention on Biological Diversity and Ramsar Convention

2.2.3 Identification of the priorities related to implementation of the Convention to combat desertification in countries experiencing serious drought and/or desertification, particularly in Africa.

3. FACTORS DETERMINING IMPLEMENTATION OF THE PROVISIONS OF THE THREE GLOBAL CONVENTIONS

3.1 Identified barriers to implementation of the provisions of the three Global Conventions and potential for overcoming them

3.1.1 Barriers to creating conditions for management of implementation of the provisions of the UN Framework Convention on climate change and the Kyoto protocol and the potential for overcoming them

3.1.2 Barriers to providing appropriate conditions for management of fulfilment of provisions set out in the Convention on Biological Diversity and Ramsar Convention and the potential for overcoming them

3.1.3 Barriers to providing appropriate conditions for implementation of the provisions laid down in the Convention on desertification in countries affected by major droughts and/or desertification, particularly in Africa and the potential for overcoming them

3.2 Strong and weak points with respect to implementation of the provisions of the three Global Conventions

3.2.1 Strong and weak points with respect to implementation of the provisions of the UN Framework Convention on Climate Change and Kyoto Protocol

3.2.2 Strong and weak points with respect to implementation of the provisions of the Convention on Biological Diversity and Ramsar Convention

3.2.3 Strong and weak points with regard to implementation of the provisions of the Convention to combat desertification in countries

experiencing serious drought and/or desertification, particularly in Africa

3.3 List of the recommended activities aiming at providing favourable conditions for implementation of the three Global Conventions

3.3.1 List of the recommended activities aiming at providing conditions for implementation of the UN Framework Convention of Climate Change (UN FCCC) and the Kyoto Protocol

3.3.2 Summary of the recommended actions aiming at providing favourable conditions for implementation of the Convention on Biological Diversity and Ramsar Convention

3.3.3 List of the recommended measures to provide favourable conditions for implementation of the Convention to Combat Desertification in Countries Experiencing Serious Droughts and/or Desertification, particularly in Africa.

4. PROPOSAL FOR ACTIONS CREATING CONDITIONS FOR THE IMPROVEMENT OF THE EFFICIENCY OF COOPERATION OF THE GLOBAL CONVENTIONS IN FULFILLING THE OBLIGATIONS

4.1 Introduction

4.2 Potential for strengthening of cooperation between the Global Conventions

4.3 Proposal for improvement of the structure of management of fulfilment of obligations resulting from the three Global Conventions

4.3.1 General structure of relationships

4.3.2 Rights and duties of the National Coordinator

4.3.3 Advisory Team

4.3.4 Financing

4.3.5 Reporting

4.3.6 Legislation

4.3.7 Convention Secretariats

4.3.8 Interdisciplinary Thematic Team

4.3.9 Principles of co-operation

4.3.10 Operational focal points

4.4 Tasks recommended for fulfilment within the identified fields of synergy resulting from the mutual relations between the Global Conventions

ANNEX 1 Tasks recommended for fulfilment within the identified fields of synergy resulting from mutual links between the Global Conventions

ANNEX 2 List of acronyms

1 INTRODUCTION

1.1 Justification of the need for preparing self-assessment for global environmental management in Poland (NCSA) in Poland

Poland is a party to the Convention on Biodiversity, UN Framework Convention on Climate Change, and since October 2001, also to UN Convention to Combat Desertification. Except for a relatively small group of specialists, general public are not sufficiently aware of relationships between global problems covered by those conventions. Also, tasks resulting from individual conventions insufficiently cover mutual relationships between the conventions. .

Identification and understanding of mutual relationships between those conventions, dissemination of that knowledge and also finding ways of co-ordination and harmonisation of various forms of activity related to implementation of the provisions set out in those conventions should ensure improvement in expected effectiveness of activities aiming at sustainable use of the global environment, which are performed in Poland. .

Experience gained by other countries indicates purposefulness of strengthening co-ordination while developing the environmental policy and then when it is implemented by sectoral authorities at the national level. It applies also to Poland, particularly after its accession to European Union. The necessity for adapting legal regulations and procedures to the EU standards, which pertain to activity in the environment and consequently also develop new habits, skills and extend relevant knowledge at all the levels of environmental management provides a unique chance of making use of NCSA for the process. Making use of national capacity self-assessment for global environment management will also support the process of providing appropriate conditions for the following:

- strengthening national procedures for agreeing and implementing the provisions of the above conventions;
- integrating national databases and reports related to individual conventions;
- strengthening relationships between national reporting and the substantive scope of programmes implemented in relation to those conventions;
- developing research and monitoring activities, meeting the needs of more than a single convention;
- dissemination of knowledge of global environment integrity;

1.2 National aims of NCSA preparation

The main aim of *NCSA* preparation is to identify priorities and determine needs related to the provision of appropriate conditions for protection of the global environment in Poland. The specific objectives of *NCSA* preparation include, among others, the following tasks:

- identification of priorities related to implementation of the provisions set out in the conventions and referring to global environment management within individual fields: biological diversity, climate change, desertification/Earth surface degradation and wetland conservation;
- identification of the relevant needs related to improvement of effectiveness of activities aiming at implementation of the provisions set out in the global environmental conventions;
- indicating specific tasks necessary to improve global environmental management.

NCSA identifies specific conditions favouring introduction of improvements and development of action plans and projects that will eventually strengthen the general infrastructure of environmental management at the national level.

1.3 The process of *NCSA* preparation

The following actions have been initiated within the framework of *NCSA* preparation:

- Organization of supervision and co-ordination of actions related to *NCSA* preparation:
 - the procedure of *NCSA* preparation has been designed so that it can provide authors with extensive substantive support by the Steering Committee for *NCSA* project execution, which has been established specifically to serve that purpose;
 - The Steering Committee was composed of representatives of the following institutions and organizations: GEF Political Focal Point, GEF Operational Focal Point, Focal Points for individual Global Conventions, National Foundation for Environmental Protection as a National Executing Agency, Ministries of Agriculture and Rural Development, Infrastructure, Economy, Finance, and Education, State Forests, Agricultural Consulting Centres, Chief Inspectorate for Environmental Protection, Regional Water Management Boards, Provincial Planning Offices and representatives of science and non-governmental organizations;
 - The Steering Committee fulfilled the consulting, advisory and supervisory roles in the *NCSA* preparation procedure, managed activities related to *NCSA* preparation so that project results included all aspects of global environmental management resulting from interests of different ministries, institutions, and the general public;
 - in order to provide appropriate supervision and co-ordination, the Steering Committee arranged three working meetings in order to check the results of project execution and passed its recommendations to the Project Co-ordinator and the Co-ordinating Group on a current basis.

- Preparing the co-ordinating structures of the NCSA project (the co-ordinating team, thematic groups):
 - National Foundation for Environmental Protection (NFEP) has been approved by the GEF Steering Committee and the Ministry of Environment as a National Executing Agency for the NCSA project;
 - NFEP was responsible for all the organisational and substantive activities and co-ordination of the project execution;
 - NFEP assigned the Project Co-ordinator from among their staff, who worked out time schedules of work for the Co-ordinating Group, Thematic Groups and consultants collaborating with the Thematic Groups;
 - The Co-ordinating Group was composed of the Project Co-ordinator and NFEP experts. It played the role of a consulting body for the Thematic Groups and passed them their substantive contribution. Four Thematic Groups were established, and were responsible for preparation of three thematic profiles related to the three Global Conventions and the cross-cutting profile. Apart from NFEP experts, specialists in individual fields representing scientific and academic milieus and NGOs were members of the Thematic Groups.
- Participation of stakeholders:
 - all the stakeholders, including NGOs and science representatives were invited to take part in NCSA preparation to as large extent as possible;
 - the following seminars and workshops took place to ensure wide representation of the shareholders:
 - ✓ three seminars/workshops related to three thematic reports referring to individual Global Conventions, aiming at discussing the scope and form of those reports,
 - ✓ three seminars/workshops related to the three thematic reports, aiming at discussing their draft versions,
 - ✓ one seminar on cross-cutting problems aiming at discussing draft version of the cross-cutting report,
 - ✓ National Conference at which draft version of the NCSA Report and the Action Plan were presented;
 - also the following consultation meetings were arranged:
 - ✓ a meeting aiming at consultations on the proposed work plan,
 - ✓ a meeting aiming at consultations related to the effects of work on identification of cross-cutting problems,

- ✓ three meetings aiming at consultations related to the second versions of the three thematic reports,
 - ✓ a meeting aiming at consulting the second draft version of the cross-cutting report,
 - ✓ meetings and individual consultations with representatives of science and the Ministry of the Environment;
- information on progress and effects of work on the projects updated on the current basis was successively published on the website.
- Preparing the three thematic reports constituting the basis for the identification of strong and weak points of the present system of implementing the provisions of the conventions in question:
 - thematic reports were compiled by the Thematic Groups. They are composed of two main parts: overview of the information available and overview and analysis pertaining to the following topics:
 - ✓ identification of priorities related to the three Global Conventions,
 - ✓ determining obstacles to implementation of the priority tasks within the three thematic fields and at three levels: systemic, institutional, and individual ones,
 - ✓ determining possibilities for overcoming obstacles to implementation of the priority tasks within each of the priority thematic fields;
 - besides, the thematic reports cover synthetic information including the following:
 - ✓ a list of legal instruments and policies being currently in force, with specification of their role in management of the Global Conventions,
 - ✓ an analysis of duties and measures taken by ministries, the government, agencies and institutions including activities related to co-ordination and an analysis of the extent to which those activities complement one another,
 - ✓ an analysis of the role and degree of participation of industry, interest groups, scientific milieu, and other organizations and institutions playing the leading roles in executing programmes and conducting projects within a given thematic field,
 - ✓ evaluation of information sources and databases and access to them,
 - ✓ an analysis of implemented projects and their results and experience gained,
 - ✓ an analysis of projects conducted and measures taken and their anticipated effects,

- ✓ evaluation of technical infrastructure and their adequacy as referred to achievement of the assumed aims,
 - ✓ evaluation of the level of awareness and understanding of individual thematic problems among the government members and general public,
 - ✓ evaluation of quality of available human resources,
 - ✓ an analysis of current programmes of training and development of human resources,
 - ✓ information on domestic funds that may be spent on implementation of action plans within individual thematic fields,
 - ✓ evaluation of measures enhancing the monitoring system and projects, and activities related to their improvement,
 - ✓ a list and evaluation of incentives applied at present that help to gain new skills,
 - ✓ evaluation of contacts and the level of information exchange between individual units, as well as making those contacts easier by appropriate institutions,
 - ✓ a list of possibilities that were not made use of,
 - ✓ a list of necessary actions and measures aiming at providing favourable management conditions, which include implementation of the relevant conventions and the present and planned legal and institutional requirements;
- thematic reports were presented to the project Steering Committee and they have been approved after taking into consideration suggestions and comments by the Executing Agency.
- Preparing the report concerning cross-cutting topics:
 - the work of the team of executors composed of the representatives of the Thematic Groups was focused on the following issues:
 - ✓ identification of issues common for all the three Global Conventions and synergies related to implementation of the identified priorities,
 - ✓ performing a cross-cutting analysis taking into consideration a possibility of integrating action undertaken within the framework of the three Global Conventions;
 - the final report concerning cross-cutting issues was presented to the Steering Committee and it was approved.
- Preparing the "National Capacity Self-assessment for Global Environmental Management (NCSA)":

- The Assessment (*NCSA*) is based on the results of work on the three thematic reports and the cross-cutting analysis. First of all it contains a set of recommendations for creating optimum conditions for global environmental management in Poland;
 - the draft version of the Assessment was given to all the procedure participants for consulting. After taking into consideration suggestions, proposals and comments it was presented at the National Conference;
 - the final version of the Assessment was submitted to the Steering Committee for approval.
- Evaluation and monitoring:
 - The Steering Committee evaluated achievements and progress of the project on a current basis;
 - UNEP evaluated progress of the project basing on substantive and financial reports.

2 IDENTIFICATION OF THE PRIORITY ISSUES

2.1 Present conditions for implementing the Global Conventions by Poland

2.1.1. The existing conditions for observing obligations resulting from the UN Framework Convention on Climate Change and Kyoto Protocol

Activities aiming at implementation of the Convention provisions conducted by Poland at present and planned in the future depend and will depend on conditions related to development, which result from the actual economic potential. Below the external conditions are presented, including those resulting from the Convention itself and the Kyoto Protocol (as divided into legal, economic and environmental ones) and the internal conditions (as divided into legal, economic and environmental ones)

2.1.1.1. External conditions, including those resulting from the Climatic Convention itself and the Kyoto Protocol

A – legal issues (acts of international law, including those resulting from Poland's accession to the European Union)

Legal conditions for implementation of the Convention provisions include the system of decisions of the Conference of the Parties to UN FCCC and the relevant European Union legal system. The conditions that should be co-ordinated with activities of the European Union and its Member States first of all include:

- Participation in the activities of the “6th Environment Action Programme of the European Union”.
- Preparation for meeting the provisions set out in the EU Council Decision on the mechanism of monitoring emission of greenhouse gases in the Community and implementation of the Kyoto protocol. In that decision individual responsibility of the member States for developing their own policies and activities aiming at reduction of greenhouse gas emissions, whose effectiveness will be monitored on a permanent basis is stressed.
- Preparation for meeting the provisions laid down in Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Directive 96/61/EC, including introduction of the law allowing for trade in emissions. The Kyoto Protocol does not allow for including other countries to the European Union group. That means that any country joining the European Union will take part in emission trading in the same way as any other EU non-member country mentioned in Annex 1 to the Climatic Convention. Starting from May 1, 2004, Poland has been subject to the Community law, including the Directive on e3mission trading. The data and requirements related to reporting will require making considerable effort by Poland to deliver reports on

time, verify data, provide access to the original data at the level of emission sources, establish and keep the register of allowances. Poland has performed the inventory of installations (industrial plants) covered by the Directive and developed the National Plan of Allowance Allocation (KPRU), containing a number of allowances for each plant and the method of their allocation, and presented it to the European Commission. The law on trade in allowances for emitting greenhouse gases and other substances emitted into the air is at the final stage of the legislative procedure. Establishing the National Allowance Register as soon as possible, including purchase of software, providing equipment and reliable and safe connection to the Internet, implementing the Polish database (prepared to meet the KPUR needs) and opening accounts to operators is the main challenge Poland faces. Starting from 2008, the Register will also take over responsibility for servicing trade in emissions within the Protocol framework. So it is of key importance to select an institution, which will be the office where Register is kept (costs of register implementation should be taken into account, particularly those related to the infrastructure, communications, security and staff).

- Preparing the stance for negotiating obligations in period II, that is, 2013 – 2018, taking into account harmonisation with the new EU regulations.

The necessity for reduction in greenhouse gas emission results from numerous decisions and Directives of the European Union, related to different sectors of economy. Fulfilling obligations to adapt the national regulations to the legal requirements of the European Union, Poland performs transposition of the Community legal acts..

Apart from the Union regulations mentioned above, provisions set out in Council Directive 1996/62/EC of 27 September 1996 on ambient air quality assessment and management, Council Directive 1996/61/EC on Integrated Pollution Prevention and Control (IPPC), Directive of the European Parliament and Council 2001/80/EC of 23 October 2001 on Limitation of Emissions of Certain Pollutants into Air from Large Combustion Plants, Directive of the European Parliament and Council 2001/81/EC of 23 October 2001 on National Emission Ceilings for Certain Atmospheric Pollutants and Directive of the European Parliament and Council 2000/76/EC of 4 December 2000 on the Incineration of Waste are of considerable importance in terms of the climate policy meeting the requirements resulting from the above Directives constitute a major challenge to our country.

As regards Council Directive 1996/61/EC on Integrated Pollution Prevention and Control (IPPC), introduction of integrated permits will lead to reduction in emission of greenhouse gases and also will be related to the requirement to use the best available technologies (BAT), both in power engineering and industrial processes. Besides, the Directive of the European Parliament and Council 2001/80/EC of 23 October, 2001 on Limitation of Emissions of Certain Pollutants into Air from Large Combustion Plants, will contribute to fuel diversification due to restrictive emission standards for solid fuels, which will effectively reduce emission of greenhouse gases.

First of all those actions which will contribute to creation of mechanisms encouraging investors to long-term involvement of investment capital will determine whether completion of the tasks resulting from the Convention on Climate Change and the Kyoto protocol are successful. Establishment of, *inter alia*, the system of emission trading, which is one of the short-term priorities in Poland's Climate Policy will be a stimulus encouraging to undertake such activities.

B – Economic issues (global and European economy)

The economic background is related, *inter alia*, to the following:

- Probably, the Kyoto Protocol will soon enter into force, and besides reduction requirements in the second and third commitment period will be stricter.
- The share of renewable energy in global production of electric power will grow.
- The European Union has initiated or intends to imitate measures related to:
 - reduction in greenhouse gas emission by 1% per year in relation to 1990 until 2020;
 - an increase in the share of renewable energy sources in production of electric power by 22% until 2010 (an average index, indicative for the European Union – Poland assumes that share to equal 7.5%);
 - planned activities aiming at reduction in significance of moto-transport and contributing to an increase in significance of railway transport within the framework of the transport policy;
 - programme of liberalisation of the market in energy.

C – Environmental issues (global)

External issues resulting from the global character of climate change are related to the necessity for arranging mutual co-ordination of measures taken by individual countries in order to get environmental and economic benefits in that field.

2.1.1.2 Internal issues

A- legal issues (legal system, strategies, programmes)

Strategic documents adopted by the Council of Ministers and the Parliament of the Republic of Poland are of considerable importance to activities for climate protection. They include plans, policies and strategies pertaining to sustainable development, the environment, economy as a whole and its individual sectors. Below, the following documents are briefly presented:

- *Polish climate policy – Strategy for reduction in greenhouse gas emission in Poland until 2020* – the document adopted by the Council of Ministers on the 4th of November, 2003. It was developed in response to international obligations of Poland resulting first of all from UN FCCC and the Kyoto Protocol, the European Union legal system, the Implementation Plan from Johannesburg adopted at the Earth Summit "Rio+10" in 2002 and several strategies and policies adopted in Poland.
- *II National Environmental Policy* – that document specifies measures leading to reduction in energy consumption in the national economy as one of the basic aims and determines priorities as regards use of renewable energy sources. *The National Environmental Policy for the period 2003-2006, including the prospects for 2007-2010* refers to the priority courses of actions as determined in the adopted *VI Environment Action Programme of the European Union*. In those documents particular stress is laid on the fact that implementation of the State Environmental Policy to an increasing extent should be performed through a change in the production and consumption patterns, reduction in material, water and power consumption and use of the best available technologies and good practice of management thus counteracting climate change.
- *Poland 2025 – Long-term strategy for sustainable development*. The following aims were mentioned as the main aims in the *Strategy*: necessity for “successive elimination of economic activities which are destructive to the environment and human health, promoting the environment-friendly management methods, change in production and consumption patterns and restoring the environment to the appropriate state wherever “natural balance” has been disturbed. Although the Strategy does not pertain explicitly to climate change, the problem of reduction in greenhouse gas emission is significantly represented in the document both in direct and indirect ways. In the *Strategy*, Poland's joint responsibility for environmental threats, including threat with climate change and its obligation to take appropriate preventing measures.
- *Assumptions of Poland's power policy until 2020* – in that document the main aims were defined in the following way: care for country energy safety, working on improvement in competitiveness of domestic business entities and their products and services in the country and abroad, and taking care for appropriate protection of the environment in terms of minimisation of adverse impact of power industry. Activities of the government and governmental institutions, following the “*Progress assessment and revision of the Directions of the Polish power policy until 2020*”, adopted by the Council of Ministers on the 2th of April, 2002 encompass three functional fields, that is, creating power policy, regulation policy towards power industry and ownership policy towards a part of general power potential in the national economy.
- According to the *Development strategy for renewable power engineering*, an increase in the share of energy originating from renewable sources in the national fuel-power balance is to grow up to 7.5 % in 2010 and up to 14% in 2020 in the structure of primary energy carriers. An increase in the use of renewable energy sources (RES) first of all will make it

easier to achieve the aims related to reduction in emission of pollutants contributing to climate change and acidifying substances, adopted in the environmental policy.

In spite of the strategic documents mentioned above, there is a system of legal instruments functioning in Poland that pertain directly or indirectly to climate change. Those instruments have stimulating effect on initiation of activities contributing to reduction in greenhouse gas emissions.

B – Economic issues

Implementation of the provisions of the Convention on Climate Change and Kyoto Protocol to a significant degree depends on economic issues typical of the countries at the transformation stage. They include, among others:

- Relatively low profitability of companies, preventing from spending necessary financial means on urgent technical modernizations. That situation is particularly difficult in many companies with the dominating ownership share of the State Treasury.
- Excessive costs related to functioning of electric power, gas and heat engineering industries related to incomplete marketization.
- High energy consumption of industrial processes.
- Dynamic development of motor transport.

D – Environmental issues

In spite of considerable achievements of Poland in relation to reduction in the amount of pollutants emitted into the atmosphere, the present level of emission remains to be unsatisfactory. The main cause of that situation is unfavourable structure of electric and heating energy sources and the processes of fuel combustion used for that purpose are the main source of air pollution. For the most part production of electric power in Poland is based upon combustion of coal or lignite and only a small part of energy is produced in hydroelectric power plants. Natural gas, biogas or wind are energy sources that make up in total just a fraction of percent of electric power produced in Poland. Predominance of coal in the structure of primary fuels (historically resulting from accessibility to own resources and accompanying social issues) has direct and adverse effect on quality of the natural environment, including climate change.

However, it should be stressed here that the structure of production and use of primary energy has been subject to major change in recent years. Production of energy carriers and first of all hard coal has dropped by almost 20%, also significant improvement of power effectiveness in the whole national economy has taken place. Merits of natural gas cause that it becomes more and more significant technological an energy raw material. Although hard coal keeps on dominating in the process of energy production, its share is declining, whereas the share of gas and oil is growing, as well as most probably the share of energy from renewable sources

will grow in the near future. The share of hydrocarbon fuel exceeded 30% of the balance and at the same time clear tendency towards using natural gas as fuel in commercial power industry (the first installation of that type has been implemented in 1999). The use of traditional carriers of primary energy (such as wood, peat, waste fuels, and water energy) is growing, too. Also, a faster increase in the share of renewable energy sources such as wind power and biogas is recorded (their share in the total power production in Poland is still rather insignificant).

2.1.2 The existing conditions for fulfilling the obligations resulting from the Convention of Biological Diversity and Ramsar Convention by Poland

Poland has been taking part in activities for protection and sustainable use of biological diversity for years. That is co-ordinated by the Ministry of the Environment, and particularly by Focal Points of the two Conventions.

Within the scope of the analysis of the *Convention on biodiversity*, also the provisions set out in the second of the conventions related to nature of global character were taken into consideration, that is, *Convention on Wetlands of International Importance especially as Waterfowl Habitat'*, commonly known as Ramsar Convention, as it is of special importance for biological diversity in Poland. The work on protection of wetland areas has been conducting for many years. Poland has joined that activity in 1978 upon becoming a party to Ramsar Convention (when Poland ratified the convention)..

So far, eight areas have been designated in Poland for Ramsar List (nature reserves: Słońsk – at present Ujście Warty National Park, Łuknajno Lake, Świdwie Lake, Karaś Lake, Siedmiu Wysp Lake, Stawy Milickie and Biebrza and Słowiński National Parks), whose total area equals 90.455 ha.

Fulfilling the tasks related to implementation of the *Convention* provisions, 77 sites important to European birds have been designated and described in Poland, of the total area of approximately 20 thousand hectares. In most cases they are located within wetland areas. The following areas have been recognised as particularly important and deserving special protection: Drużno, Jamno and Gopło Lakes, Szczecin Basin, Wigry National Park. Polesie National Park, the Narew River gap valley, Upper Narew River Valley, upper Bug River valley, middle Vistula River Valley, and middle Warta River Valley.

At present the Minsitry of the Environment plans to submit new areas to *Ramsar* List, namely: Drużno, Wigry, Polesie and Narew National Parks and sub-alpine bogs in Karkonosze National Park. According to the *Strategic Plan for the Ramsar Convention* it is recommended to cover those areas with protection, which are rather not massively represented in the *List*. Various bog habitats have been recognised as such areas.

Poland fulfils its reporting duty. The Ministry of the Environment prepares reports on implementation of *Convention* provisions, which pertain, *inter alia*, to observing decisions related to sound use and protection of natural sites, environmental education, making a wide range of interested parties representing various social groups get involved in relevant activities and co-operation with other countries. The reports also include reviews of activities related to implementation of protections plans and plans of management of individual areas mentioned in the *Ramsar List*.

According to the *Convention* provisions, the parties to the Convention are obliged to monitor environmental changes within wetland areas. So far, such work has been conducted in the area of the Siedmiu Wysp Lake and Słońsk nature reserve. According to protection plans prepared now, monitoring of environmental changes is to be conducted within all the areas mentioned in the *Ramsar List*. That is related to the fact that in most of the areas changes related to natural process of lake shallowing and plant succession, as well as local anthropogenic eutrophication has been recorded.

The ideas constituting the basis for the *Convention on Biodiversity* were implemented in Poland already before the Earth Summit in Rio de Janeiro – on the 10th May of 1991, the Parliament of the Republic of Poland adopted the resolution implementing the principle of the country development based on the idea of sustainable development. The implemented policy of sustainable development means on the one hand development of consumption and production and civilisation progress so that the environmental values and resources are used in a sustainable way and on the other hand, active conservation of the natural environment. The environmental debate and adopting on the 19th of January, 1995 a resolution that imposed the obligation to integrate the principles of sustainable development into the economic policy and strategy, as well as sectoral programmes and plans, was another important step in that direction. Besides, the provision on adopting the course of sustainable development by Poland was introduced in 1997 into the most important document, that is the Constitution of the Republic of Poland. The principles mentioned above and precisely specified courses of actions in the field of biodiversity conservation were also introduced into the *National Environmental Policy* (that of 2000).

Development of a comprehensive strategy for biodiversity conservation and sustainable use is one of the requirements laid down in the *Convention*. Also in this case appropriate measures were taken in Poland prior to the provisions of that international document. The *Strategy for living resources conservation in Poland* was worked out already in 1991. In the Strategy, the main aims of the state policy in this field were specified, which included maintenance of the basic ecological processes and life-supporting systems, preserving genetic biodiversity of organisms and ensuring sustainable use of species and ecosystems.

In 1991, the *Polish Study of Biodiversity* was also prepared in which main courses of actions in relation to valuable or threatened areas and species of different categories were specified. The first action plan that was focused directly and indirectly on biodiversity conservation was included in the *Executing Programme for the National Environmental Policy until 2000*,

adopted for implementation in 1994. In 1995 the first draft version of the national strategy for biodiversity conservation and sustainable use was prepared and in 1996-1998 and 2000-2001 the strategy and action plan were developed, which covered all the sectors of the national economy. *The Strategy* has been validated by the Council of Ministers on the 25th of February, 2003.

The principles of sustainable use of biodiversity very clearly stressed in the *Convention*, have been also reflected in sectoral strategies and policies: *National Forest Policy* (1997) *Coherent Structural Policy for Rural Areas and Agriculture Development*. (1999), *Concept of the National Spatial Development Policy* (2000).

Along with activities of the programme character, improvement of the legal system is under way to adapt it to the current needs of biodiversity conservation. Changes, which are now introduced result also from the necessity for adapting our law to the regulations being in force in the European Union. The most important EU legal acts related to biodiversity include *Birds Directive* (no. 79/409/EEC), establishing the complex system of wild bird conservation, as well as protection of their habitats and imposing the obligation to maintain population densities at an appropriate levels, and the *Habitat Directive* (no. 92/43/EEC) defining principles of protection of natural habitats and conservation of wild fauna and flora, as well as the *Regulation to protect sea mammals* (EEC/348/81).

Provisions set out in the *Convention of biodiversity* and in the EU legal system mentioned above have been reflected in the new *Law on Nature Conservation* passed in 2004 and the resulting regulations of the Ministry of the Environment on species and habitat conservation. Those issues are covered also by the following laws: *on Animal Protection* of 21 August 1997 (Dz. U. nr 111, item724 z 1997 r. as amended), *on Agricultural and Forest Lands* of 3 February 1995 (Dz. U. nr 16, item78 z 1995 r. as amended), *on Forests* of 28 September 1991 (Dz. U. nr 101, item444, 1991 as amended), *on Inland Fishing Industry* of 18 April 1985 (Dz. U. nr 21, item91 of 1985 as amended), *Hunting Law* of 13 October 1995 (Dz. U. nr 147, item713, 1995, as amended) and on *Spatial Planning and Management* of 2003 (Dz. U. nr 80, item 717, 2003).

As it was already mentioned, the need for *ex situ* conservation in addition to actions taken *in situ* is pointed out in the *Convention*. As regards plants, that conservation take place both in botanical gardens and arboreta, forest tree seed plantations, and in seed storing facilities, forest tree and crop plant gene banks. As regards animals, conservation is taking place in zoos, centres of wild animal and livestock preservation breeding centres and semen banks. The latter type of activity is also one of the elements of the *National Programme for Conservation of Genetic Resources*, focusing on population of races, varieties and families of livestock. Questions of agrobiodiversity conservation are also one of the basic aims of agri-environmental programmes currently implemented in Poland.

In the Convention, considerable importance is also attached to activities aiming at elimination of threats to native biodiversity resulting from appearance of alien species. In Poland that problem is subject to monitoring. The Institute of Nature Conservation of the Polish Academy

of Sciences also keeps the database on alien species covering already 521 species of plants, animals and fungi.

According to the *Convention* provisions, Parties to the Convention are obliged to prepare national reports concerning selected issues. Independently of periodical reports on implementation of the Convention provisions (the first one in 1997, the second one in 2001), Poland has prepared thematic reports on alien species, genetic resources, forest ecosystems and mountain ecosystems. All those documents were sent to the Convention Secretariat, which publishes them on freely accessible website.

Achievement of the aims adopted in the *Convention* is impossible without public awareness of significance and need for biodiversity conservation. The Internet Clearing House Mechanism is worth mentioning among various activities conducted both within the framework of formal ("school") and informal education activities.

Concluding, it should be stressed that Poland's activities conducted so far made it possible to implement many of the Convention provisions. Implementation of the provisions set out in those documents and decisions made by successive Conferences of the Parties to the Convention is a continuous process as biodiversity conservation requires methodical activities conducted on a long-term basis and new initiatives for conservation and sustainable use of biodiversity, new programmes of work, guidelines and target levels are worked out at successive Conferences. On the other hand, numerous issues covered by the have not been so far implemented to a satisfactory extent as their implementation depends on the conditions resulting from the actual institutional, financial, economic and the existing legal systems as well as external conditions s of economic or political character.

Of many internal factors having impact on effectiveness of fulfilment of obligations resulting from the convention, the following ones are of particular importance:

A- social factors

- Relatively low public environmental awareness.
- Poor financial condition of the society.
- More and more common consumerist life-style.
- Weak environmental NGOs.
- Ineffective law enforcement, both at various governmental levels and among general public.

B- economic factors

- Backlogs in introduction of environment-friendly technologies.

- Changes in the traditional system of plant and livestock breeding resulting from production intensification.

C- factors related to management

- Complicated legal system and frequent changes in legal regulations.
- Complicated structure of competence of the governmental and self-governmental administration.
- Unequal level of professional skills of people dealing with fulfilment tasks resulting from the Convention.
- Insufficient number of staff for tasks that are to be fulfilled.
- Instability of political situation.

The main external factor having impact on effective implementation of tasks resulting from the Convention is quality and scope of international co-operation in other fields, in particular including those related to Poland's accession to the European Union. Meeting the requirements of adapting the Polish legal regulations, including those in the field of nature conservation to the EU standards has been a priority in recent years and that has resulted in fulfilment of many obligations set out in the Conventions.

2.1.3 The existing conditions for fulfilling by Poland obligations resulting from the Convention on desertification in countries affected by major droughts and/or desertification, particularly in Africa

Since May 1, 2004, Poland has become a full member to the European Union. Consequently, it has to adopt most of the *acquis communautare*. However, as regards soil protection it is extremely small. In spite of the attempts made earlier, so far any general standards of soil quality have not been implemented in the Union. Only now work on development of the consistent Strategy for Soil Protection and on the European Framework Soil Directive are under way. Polish experts took part in that work. One may expect that after disastrous summer drought and hot weather in 2003, European Union activity in that field will gain impetus.

Being a member to the European Union, Poland has the right to make use of structural funds and Cohesion Fund and from subsidies to agriculture. It is of crucial importance that also soil protection and appropriate water and forest management become one of priorities in utilization of those sources.

In spite of the fact that contamination of soils in Poland is rather low in comparison to EU and other accession countries, on the 9th of September, 2002, the Minister of the Environment issued the Regulation on the soil quality standards, taking into consideration three groups of

soil types according to the criterion of their present and planned functions and contents of some substances in soil, differing depending on the individual groups of soil types. That Regulation follows the delegation for the Minister of the Environment specified in the Law on Environment Protection of 2002, recommendations of the second National Environmental Policy, but it also perfectly meets the obligations under UN CCD.

Bearing in mind that Poland is not located in the zone of actual desertification and the main problem is soil degradation occurring of various causes (not only droughts), which is a common phenomenon in Central and Eastern Europe (*vide* the definition in Annex V to the Convention), Poland does not need to combat desertification but rather prevent soils from further degradation and work for restoration of post-industrial areas, afforestation of fallow lands and reversing the phenomenon of so called hydrological drought. Governmental programmes may be helpful here, e.g., the Governmental programme for post-industrial areas whose directions have been adopted by the Council of Ministers on the 2nd of April, 2002 or the National Strategy for Integrated Management of Water Resources being currently under preparation. However, every possible effort should be made that provisions compatible to the Convention regulations are set out in that Strategy and Programme.

Minimisation of effects of those droughts on agriculture and livestock breeding, fishing industry, biodiversity, forestry, shipping, water management, municipal economy, power engineering and industry and finally on health and recreation is a serious challenge that Poland is facing both as a result of the necessity for fulfilling obligations imposed by the Convention and as a result of more and more frequent droughts. The present regulations and crisis management units focus, *inter alia*, floods and forest fires, disregarding droughts and their effects (in spite of fires). Insurance companies follow the pattern, refusing insurance against droughts, recognising the phenomenon as *force majeure*. Also banks are not willing to offer any reductions in credit repayment due to losses as a result of long-term droughts. That situation has to be changed both because of requirements set out in the Convention and because of the actual disastrous character of the drought phenomenon.

Another important issue having impact on successful fulfilment of the Convention obligations and also enforcement of national law related to soil protection is the structure of Polish agriculture. In Poland very small (below 5 ha) family farms predominate. Introduction of uniform policy of soil protection in the region comprising a few or a dozen or so farms is a difficult task but not impossible. Implementation of such a policy and practices in a region comprising thousands of small farms of very different agrotechnical level is in practice impossible. Another problem is overpopulation in rural areas and related structural unemployment. Natural farming and ecological farms offer a chance to Poland in this respect. However, it will require considerable intensification of efforts (and expenditures) of the state administration, self-governmental authorities, and NGOs in the field of education and making population in rural areas better aware of environmental issues.

In Poland the favourable circumstance related to forest management is that the great majority of forest resources are owned by the State Treasury. That made it possible to adopt and consistently implement sustainable forest policy and long-term programme for increasing the

total forest area in the country whose priorities are improvement of ground water retention and protection of soil against erosion. Set-aside lands and poor-quality lands are kept on being afforested. However, implementation of that policy and programme requires considerable financial means from the state budget and there are no private investors and foreign aid for those purposes.

As Poland has been a party to the Convention for a relatively short time, establishment of appropriate national structures of supervision over implementation of The Convention provisions has not been possible yet. The Minister of the Environment accepted the greatest load of work in relation to fulfilment of that task (membership fees, reports, participation in Conferences of the Parties to the Convention). However, there is no appropriate content-related department that could play the role of a co-ordinator at a national scale. There is also no National Secretariat of the Convention, and scientific support is provided by universities, research institutes and individual experts on the basis of contracts for specific work and not within the framework of a consistent national programme.

That situation has several demerits, including first of all a lack of co-ordination of national activities, dispersion of means and extemporisation at each activity related to the Convention.

However, taking into account very strong substantive, political, and formal relationships between UN CCD, UN Framework Connection on Climate Change (UN FCCC) and Convention on Biological Diversity (CBD), and the fact of earlier establishment of management structures and co-ordination of actions within the scope of the Climate Convention and Convention on Biological Diversity, a lack of such structures in the case of UN CCD has also some merits, providing flexibility in structure organisation and common co-ordination of actions within the causes-effects process. UN CCD management structures do not have to be established separately as it was the case in UN FCCC and CBD, and thanks to the experience gained may be located at already operating institutions. It will enable considerable improvement of economic effectiveness of management of that Convention.

Basing on the assumption that human activity is the cause of the climate change (UN FCCC), which leads to specific meteorological and hydrological phenomena (among others drought and permanent changes in soil structure) and those in turn cause changes and irreversible losses of biological diversity and thus economic losses, it is recommended to perform an analysis of mutual relationships between those phenomena as well as of international and national legal acts that pertain to those relationships. Only integrated management of fulfilment of the obligations resulting from the three conventions will make it possible to implement them effectively in economic and environmental terms.

Concluding, several important standard issues might be defined, which will constitute a challenge to the state administration and self-governmental authorities in relation to implementation of the Convention provisions in Poland. Those issues are common to the Convention and the Second National Environmental Policy and include the following:

- present condition of soils in Poland and the manner of their management that do not favour protection against degradation;

- excessive fragmentation of agricultural land, actually making it possible to apply the same agricultural and soil protection procedures in more extensive areas;
- unclear division of competence and excessive diffusion of competence between self-governmental authorities at all levels and the state, central, and regional administration (no appropriate management structure);
- no clear policy for financing activities related to soil protection and financing individual projects and intervention actions;
- no appropriate educational programmes at the level of individual farmers and breeders and a lack of encouragement (incentives) to make them apply appropriate techniques and practices

2.2 Identification of the priorities within three thematic fields pertaining to the Global Conventions

2.2.1 Identification of priorities related to implementation of the UN Framework Convention on Climate Change (UN FCCC) and Kyoto Protocol

The priorities for fulfilment of Poland's obligations resulting from UN FCCC and the Kyoto Protocol have been identified, specified, confirmed and updated in the governmental procedure of preparing the document "*Poland's Climate Policy – The Strategies for Greenhouse Gas Emission Reductions until 2020*", and in the course of inter-ministerial consultations related to that process. That document has been adopted by the Council of Ministers on the 4th of November, 2003.

A – Short-term objectives

The short-term objectives of the Policy include first of all measures designed to fully implement systems making it possible to fulfil the obligations resulting from the Convention and Kyoto Protocol and to ensure that Poland can benefit from its participation in the subsidiary mechanisms. Integration of climate policy with other national policies should be initiated; first of all with policies of infrastructural character and with the reform of financial-tax policies. In addition, action should be taken to ensure Poland's full, active participation in the negotiations on the objectives of the second commitment period (2013-2018).

- The short-term priorities in Poland's Climate Policy (until 2006) include:
 - implementation of tasks resulting from the Accession Treaty;
 - integration of Poland's climate policy with the EU policy (as from May 1, 2004);

- integration of the climate policy into other national policies;
 - reduction in greenhouse gas emissions through measures in the energy sector, industry, transport, agriculture, forestry, and waste management;
 - fulfilment of the decisions of the authorities of the Climate Convention and the Kyoto Protocol applicable to the countries listed in Annex I to the Convention;
 - the development of long-term strategies for the economic sectors, containing specific measures and scenarios for greenhouse gas emission reductions for individual sectors and separately for each gas enumerated in Annex A to the Kyoto Protocol;
 - providing organisational, institutional and financial conditions for meeting the commitments which Poland made within the scope of reporting, monitoring and verification of the emission levels achieved;
 - providing institutional capacity for the effective adaptation of the auxiliary mechanisms of the Kyoto Protocol;
 - establishment of the greenhouse gas emission trading scheme and its implementation as well as application of the Joint Implementation (JI) mechanism;
 - determination of the reduction targets for the second commitment period (2013-2018) as the basis for negotiations on another Protocol to the Convention;
 - improvement of the system for public information and education within the scope of climate protection.
- Achievement of the aforementioned objectives requires implementation of detailed tasks in 2003-2006, including the following:
 - demonstration of progress in Poland's meeting its commitments under the Kyoto Protocol; in accordance with Article 3.2, this should be done in 2005 at the latest;
 - establishment of the legal frameworks and the operational system (registration, monitoring, verification and certification of emission reduction units) allowing for Poland's participation in the auxiliary mechanisms (in particular, Joint Implementation and emission trading) and its harmonisation with the European Union scheme (2005);
 - establishment of the national system for inventories and assessments of changes in greenhouse gas emissions at the levels of companies, provinces and the country, as well as that of absorption of those gases by forests and soils (2004 – 2005);

- periodical verification of the long-term strategies for greenhouse gas emission reductions;
- initiation of research aimed at gaining better knowledge of the climate-forming processes, assessment of the impact of climate on society and economy as well as capability to adapt to the changed climatic conditions (continuous work);
- preparation of inventory reports and governmental reports as well as periodical preparation of the emission scenarios for 2008-2020.

B - Medium- and long-term objectives and measures (for 2007-2012 and 2013-2020)

The long-term objectives and measures (for 2013-2020 and the subsequent years) will cover the successive commitment periods under the Kyoto Protocol (after 2020). It is assumed that the long-term quantitative objective will be pursuit of greenhouse gas emission reductions by about 30 – 40% in 2020 in relation to the base year. Both medium- and long-term priorities will be given to measures providing more climate friendly patterns of consumer and manufacture behaviour, diminishing the adverse impact of human activities on climate change. Implementation of the principle of sustainable development will require common application of the so-called *good practice*. This approach is characterised by maximisation of economic efficiency and environmental effectiveness of measures taken, adjusted to political and administrative feasibility.

Priorities for short- and long-term measures will include:

- continuation of implementation of tasks resulting from the Accession Treaty;
- integration of Poland's climate protection policy with the policy of the European Union, allowing for the adoption of joint commitments in the second period (after 2012);
- continuation of integration of the climate policy into other national policies;
- continuation of integration of the climate policy with governmental sectoral policies;
- implementation of the provisions laid down in the successive decisions of the Climate Convention and the Kyoto Protocol organs addressed to the countries listed in Annex 1 to the Convention;
- fulfilment of the commitments made by Poland to reduce greenhouse gas emissions in the first period, i.e., achievement of the levels of greenhouse gas emissions in 2008 – 2012, not exceeding 94% of the emissions in 1988 and the successive commitment periods;

- ensuring implementation of the climate protection policy at the levels of economic sectors and companies by creating a system of appropriate mechanisms and incentives (for 2013 – 2018 and next years);
- protection and improvement of effectiveness of sinks and reservoirs of greenhouse gases, promotion of sustainable forest management, afforestation and reforestation;
- promotion of sustainable forms of agriculture with respect to climate protection;
- promotion, development and an increase in utilization of new and renewable energy sources, technologies of CO₂ sequestration, as well as advanced and innovative, environmentally friendly technologies and identification and elimination of barriers to their use;
- continued use of the auxiliary mechanisms of the Kyoto Protocol;
- support for restructuring processes in the national economy, promoting activities and measures taken to limit or reduce greenhouse gas emissions, with priority given to the energy sector, energy-intensive industrial sectors, transport and waste management;
- in the medium term (until 2010), reduction of energy-intensity of the Gross National Product unit by 25% compared to 2000 and in the long term (until 2025) – by 50% compared to 2000;
- wide-spread introduction of the best available technologies in relation to energy efficiency and use of renewable energy sources;
- in-depth rebuilding of the model of energy production and consumption towards improvement in energy and raw-material efficiencies, more common use of renewable energy sources and making efforts to minimise greenhouse gas emissions from all the basic emission sources.

C – Priorities by sectors

In Poland's Climate Policy, the priorities are specified as the long-term main aims to be achieved by 2020 in individual sectors of the national economy, responsible for implementation of the Policy in sectors of energy production, industry, transport policy, agriculture, and forestry. The main aim in those sectors with respect to the climate policy is reduction in emission of greenhouse gases and also an increase in carbon dioxide absorption in forestry.

Climate protection priorities in the power engineering sector:

- implementation of the Community regulations;
- energy security and diversification of energy sources (excluding nuclear power engineering);

- improvement of competitiveness of national economic entities and their products and services;
 - protection of the natural environment against adverse effects of energy production, *inter alia*, through such programming of measures taken in the energy sector that would ensure preservation of resources for the present and the future generations;
 - energy-saving production;
 - liberalization of the energy market;
 - increased use of energy from renewable sources;
 - promotion of energy efficiency and effective use of energy;
 - making use of emission trading and other auxiliary mechanisms of the Kyoto Protocol.
-
- Climate protection priorities in industry:
 - rationalisation of energy use;
 - promotion of low-emission technologies;
 - improvement of energy efficiency standards for electrical appliances;
 - improvement of energy efficiency standards for industrial procedures;
 - reduction in the use of fluorinated gases (HFCs, PFCs and SF₆);
 - making use of emission trading and other auxiliary mechanisms of the Kyoto Protocol;
 - voluntary agreements.
 - Climate protection priorities in transport:
 - promotion of public transport in urban areas;
 - promotion of alternative fuels;
 - incentives to use other transport modes, such as the combined transport mode;
 - ensuring traffic smoothness;
 - rationalisation of parking rules;
 - reduction in transport-related pollution;
 - promotion of clean vehicles;
 - improvement of infrastructure for cyclists and pedestrians.

- Climate protection priorities in agriculture:
 - rational land use;
 - promotion of ecological agriculture;
 - dissemination of agricultural consulting about the principles of good agricultural practice, use of energy-saving technologies in agricultural production, use of unconventional energy sources in agriculture and rural areas;
 - afforestation of agricultural land.
- Climate protection priorities in forestry:
 - protection of forests against fire, pest gradation;
 - taking into consideration absorption of carbon dioxide in forest management;
 - growth of CO₂ sinks as a result of biomass increase and of carbon sinks in soils of forest ecosystems established in post-agricultural land;
 - measures supporting afforestation;
 - prevention against change in land use;
 - protection of forest soils against decrease in carbon content;
 - integration of climate issues into principles of silviculture and forest management guidelines;
 - promotion of utilization of wood in building industry;
 - making use of auxiliary mechanisms of the Kyoto Protocol.
- Climate protection priorities in waste management:
 - minimisation of the amount of landfilled waste;
 - recovery and utilisation of landfill gas.
- Climate protection priorities in wastewater management:
 - limitation of greenhouse gas emissions from waste water treatment plants through:
 - ✓ installations for gas capture and utilisation,
 - ✓ implementation of biological treatment processes based on the best available technologies,
 - ✓ reduction of the energy consumption in treatment processes,

- ✓ achievement of energy self-sufficiency of wastewater treatment plants by using biogas for combined heat and power production.

- Climate protection priorities in the sector of public utilities, services and households:
 - improved efficiency of generation and transmission of district heat and electric power;
 - increase in utilisation of natural gas for power engineering;
 - implementation of such tasks as thermal modernisation of housing, replacement and additional insulation of windows, revision of the existing standards for thermal protection of new buildings, introduction of energy certificates for buildings;
 - expansion of renewable energy sources (limitation of the emissions of the greenhouse gases CO₂ and N₂O).

It should be noted, that due to a very short time since adopting the document by the Council of Ministers on November 4, 2003, at the present, that is, initial stage of implementation of Poland's Climate Policy" the vast majority of priorities remain unchanged. One of the short-time priorities in this document consisted in development of the National Programme for Reduction in Greenhouse Gas Emission (an operating programme for Poland's Climate Policy, with a view to maximise benefits to Poland). Due to the fact that the National Programme has been developed and adopted by the Board of the Ministry of the Environment in January, 2004, the element has been excluded from the short-time priorities as a result of updating priorities in this document.

The preliminary assessment showed that implementation of the vast majority of short-time priorities (till 2006) has been already started and the assumed tasks have been initiated. Priority no. 11 consisting in determination of targets for the second period of commitments, that is, for the period 2013-2018 has not been initiated yet and it constitutes the basis for negotiating another Protocol to the Convention. The task be should performed as soon as possible.

Also implementation of most of the medium- and long-term priority tasks for the periods 2007-2012 and 2012-2020 and the sectoral priority tasks has been initiated. As it was mentioned before, the main national priority is development of climate-friendly production and consumption patterns. In order to achieve that goal, on the 145th of October, 2003, the Council of Ministers has adopted *The Strategy for changes in production and consumption patterns towards those favouring implementation of sustainable development principles* (published on the Ministry of Economy and Labour website). Adopting that document meant the process of implementing a number of tasks resulting from all the international and Polish strategic documents pertaining to reduction in impact on the environment. They include, *inter*

alia, the Second National Environmental Policy, Poland 2024 – The Long-term Strategy for Sustainable Development, National Environmental Policy for 2003 – 2006 with a view to years 2007–2010, the Sixth EU Environmental Action Programme, the Action Plan adopted in Johannesburg during the UN Summit on Sustainable Development (JPOI), Poland's commitments resulting from the provisions set out in the Action Plan of the Earth Summit in Johannesburg, the OECD Strategy for Environment Protection for the first decade of the 21st century and conclusions drawn during the OECD environmental review of Poland performed by OECD in 2003.

However, implementation of sectoral priority tasks will require development and implementation of several legal, financial, educational, research and organisational instruments.

2.2.2 Identification of the priorities related to implementation of the Convention on Biological Diversity and Ramsar Convention

The Conferences of the Parties to the *Convention on Biological Diversity* successively make decisions about implementation of the priority programmes of tasks particularly related to ecosystems of inland waters, seas and coastal areas, agriculturally used areas and forested areas as well as arid and semi-arid areas. The priority tasks mentioned in *Ramsar Convention* include conservation of wetlands, which comprise bogs, marshes fens or mires and mires, open waters as well as coastal waters.

In Poland all the ecosystem types mentioned above except for arid and semi-arid ones constitute the main forms of land cover and all of them were given high protection priorities. Those priorities have been specified in several documents of strategic character.

The document entitled *Poland 2025 – the long-term strategy for sustainable development* (adopted by the Council of Ministers on the 26th of July, 2000) is the most important. In the *Strategy* protection of the natural environment is one of the discussed fields. Conservation of biological diversity and national natural heritage, protection and development of the national forest resources and enhancement of sustainable forest management were indicated as the tasks of priority and crucial importance to implementation of the principles of sustainable development in practice.

In the *Second National Environmental Policy* (adopted by the Council of Ministers on the 13th of June, 2000) ecologisation of sectoral policies including agricultural and forest ones is mentioned, stressing the issues of their impact on biological diversity.

- Urgent short-term aims specified in the above document include:
 - development and adoption of the national strategy for conservation of biological diversity as means of meeting obligations resulting from *The Convention on Biological Diversity*;
 - incorporation of the strategy decisions into departmental programmes and strategies;

- incorporation of the strategy decisions into programmes of sustainable development and environment protection developed at the municipal, district and provincial levels;
- integration of management of all the natural resources in one ministry, which means among others including tasks related to protection of natural resources of Baltic, soil conservation and physical planning into the range of responsibilities of the Ministry of the Environment; that will enable effective and comprehensive supervision and control over the diversified use of the whole of the national natural resources;
- establishing the Office of the Chief Nature Conservation Officer as an agency supervised by the Minister of the Environment;
- reinforcing the staff of nature conservation service operating at the national and provincial levels and in national and landscape parks in terms of a staff numbers, finances and competence;
- establishing units or positions at the district and municipal levels, responsible for conservation of biological diversity (together with the issues of sustainable development and environment protection).

In the medium-term perspective (until 2010), *The Second Environmental Policy* among others points to the following:

- establishment of the European Network of Protected Areas, Natura 2000;
- renaturation and improvement of condition of disturbed ecosystems and natural habitats, particularly forest and wetland ones;
- species restitution (when it is relevant);
- taking any measures to protect natural resources outside their natural habitats (*ex situ*); establishment and maintenance of conditions necessary for *ex situ* conservation, supporting research and projects related to that problem;
- supporting research and inventory projects related to assessment of the state and identification of threats to biological diversity;
- introducing monitoring of biological diversity, implementation of the criteria and indices for checking effectiveness of the national environmental policy;
- inspecting use of biological resources from their natural habitats to meet the needs of *ex situ* conservation;
- establishment of legal regulations controlling biological safety in the country and providing appropriate means for law enforcement and control of threats related to biotechnology use;

- activities aiming at preservation of heterogeneous agricultural landscape with medium-sized farms;
- legal and financial support of agriculture in which such methods of agricultural production are applied, which do not disturb the natural balance, including ecological and integrated farming;
- preservation of traditional farming procedures in areas valuable for environmental reasons as instruments of conservation and sustainable use of the biological resources;
- refraining from introduction of species that might constitute a threat to integrity of natural ecosystems and habitats and/ or native species;
- activities aiming at an increase in environmental awareness and developing public opinion and attitudes of the authorities at the local level; promoting issues related to biological diversity through national or local training and informational campaigns; improvement of social communication in relation to aims and effects of biodiversity conservation;
- dissemination of the idea of sustainable use of biological resources and practice of economic and reasonable management not to destroy natural resources more than it is necessary, according to the principles of sustainable development; indicating local benefits resulting from preservation of biological and landscape diversity;
- carrying out exchange of information related to biodiversity conservation and international scientific co-operation.

Preservation of ecologically valuable areas which have not been protected by law so far through covering them with various forms of nature conservation and establishment of such conditions and principles of conducting business activities (including principles of plant and animal species conservation) to gradually enrich biological diversity is the long-term aim of *The Second National Environmental Policy* in relation to conservation of biological and landscape diversity, assumed until 2025. .

The priority activities within the scope of biological diversity are specified in the *National Strategy for Conservation and Sustainable Use of Biological Diversity along with the Action Plan*, adopted by the Council of Ministers on the 25th of February 2003. In the Strategy, the following priority actions arranged by sectors: have been indicated:

- The environment
 - wildlife and landscape conservation – conservation of genetic resources of wild, vulnerable and endangered species, sustainable use of species, taking measures towards alien species and genetically modified organisms, habitat and ecosystem conservation, taking measures towards conflict species and those unfavourably perceived by the general public;
 - forestry – taking into consideration the needs of biodiversity conservation during afforestation of agricultural land, maintaining the full range of forest tree variability, basing forest management on sound natural principles, protection of wetland ecosystems located in

forests, developing ecotone zones in forest edges, ensuring conservation and sustainable use of biological diversity in procedures related to forest management and protection, conducting education on natural and forest issues;

- geological resources/raw material management – minimising effects of extraction of minerals on biological diversity;
 - environment protection – minimisation of water, air and soil pollution;
 - promotion and education – saturation of information flow with elements of conservation and sustainable use of biological diversity, development of social activity within that scope and improvement of an open-access system of information on biological diversity;
 - nature monitoring – effective monitoring of the state of biodiversity elements.
- Water management – ensuring sufficient water resources for conservation and sustainable use of biological diversity, effective conservation of biological diversity in rivers and restoration of their environmental continuity, implementation of the methods for flood control favouring the nature.
 - Agriculture – preservation of agridiversity under conditions of farming, effective plant and animal conservation, increase in the area of woods and bushes in agricultural areas, development of the national network of environmentally sensitive areas alongside a programme for its protection, reduction in the level of water pollution with substance of agricultural origin, increase in farmers' and fishermen's awareness with respect to conservation and sustainable use of biological diversity.
 - Building industry, physical planning and housing – incorporation of the principles of conservation and sustainable use of biological conservation into procedures for physical planning, development of substantive and technical tools in the form of spatial databases, protection of urban and rural green spaces.
 - Tourism – development of sustainable tourism as a form of sustainable use of environmentally valuable areas.
 - School and university education – including issues of conservation and sustainable use of biological diversity into curricula at all levels of teaching, training teaching staff, development of programmes and teaching aids for effective teaching in this field.
 - Science – development and popularization of scientific knowledge necessary for effective conservation and sustainable use of biological conservation, providing equal opportunities for all bodies having appropriate substantive potential as regards availability of financial means for R&D projects, effective co-operation of science with practice to make use of project results in a more exhaustive and prompter manner, including those in decision-making processes..
 - Transport – minimisation of adverse impact of the transport network on elements of biological diversity.

- Marine economy - effective conservation and sustainable use of the marine environment.
- Economy – minimisation of adverse impact on the environment.
- National defence – identification and conservation of biological diversity in areas used by Armed Forces.

The aims related to nature conservation in forest ecosystems have been set out in the *National Forest Policy* adopted by the Council of Ministers in 1997. An increase in genetic and species diversity in forest communities and ecosystem diversity in forests basing on natural patterns is one of the priorities mentioned in the document.

Ratification and implementation of other conventions and international agreements by Poland which are of interest to our country (e.g., the EU regulations to which the Polish legal system is being adapted to) confirm the priority given to ecosystems mentioned in the documents mentioned above. The most important of them include acts on biological diversity, such as *Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention)*, ratified 1 January 1996 (Dz. U. no 58, item. 263 and 264 of 1996); *The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention)*, ratified 1 May 1996 r. (text not published in the Official Journal); *EU Directives: Habitat Directive* (92/43/EEC) and *Bird Directive* (79/409/EEC), and also:

- in relation to water ecosystems the *EU Water Directive* (2000/60/EEC).ratified in 1978;.
- in relation to marine and coastal ecosystems: *Convention on Fishing and Conservation of Living Resources in the Baltic Sea and the Belts (Gdansk Convention)*, ratified 13 September 1973 (Dz. U. no. 32, item 188 of 1974 r.); *Convention on Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention)* ratified 24 June 1999 (Dz. U. no 28, item.346 of 2000); *Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas* ratified 18 February 1996. (Dz. U. no. 96, item.1108 of 1999).
- As regards agriculturally used land, *Agri-environmental regulation of the European Union* (1257/99EEC).

In each of the ecosystem types mentioned above, elements of biological diversity might be recognised which deserve special attention, mainly due to their scarcity or being endangered, including, *inter alia*.:

- Wetlands: oligotrophic and dystrophic lakes and other mid-forest and mid-field small water bodies, high moors and transitional moors.
- Baltic Sea and its coast: coastal dunes, cliffs, sandy banks, coastal crowberry heaths
- Agricultural lands: *Molinietum coeruleae* meadows, riparian meadows.
- Forest areas: acid and fertile beechwoods, thermophilous oakwoods, riparian forests and riparian willow thickets, *Galio-Carpinetum* oak-hornbeam forests.

Irrespective of the above, high protection priority was given in Poland to non-forest ecosystems (set-aside meadows, including mid-forest and alpine ones, heathlands, *Festuco-Brometea*

grasslands, salt meadows, mid-field woods and thickets), and also ecosystems transformed as a result of human activity but still characterised by considerable biodiversity (habitats of that type cover some 500 000 ha). Also very special ecosystems such as old manor or church parks and cemeteries deserve protection because of biological diversity (although not always native one).

At the species level, the highest priority was given to endangered and vulnerable species. Those species are specified in the *Red lists* and *Red books of endangered species*. *The red book of plants* published in 2001 includes a total of 643 species of pteridophytes and flowering plants, and *The red book of animals* (2001) – vol. I *Vertebrates* – 130 species endangered to various degrees. At present the work on vol. II dedicated to invertebrates is under way.

Inclusion of endangered species into lists of species protected by law confirms a high priority given to the endangered species in the policy of endangered species conservation. At present the list of protected animal species includes 609 species, plant species – 230, and fungi and lichens – 265 species. .

Thanks to the special conditions of development in Poland, considerable diversity of old crop plants and livestock breeds have been preserved and their further preservation is another priority.

2.2.3 Identification of the priorities related to implementation of the Convention to combat desertification in countries experiencing serious drought and/or desertification, particularly in Africa.

Poland has joined UN CCD only at the end of 2002 so it is difficult to specify implementation priorities for the Convention now. At present it is necessary to perform urgently the following tasks

- Assessment of the state of soils threatened by degradation as a result of long-term droughts, water deficiency and human activity (completed).
- Assessment and selection of the most sensitive areas (regions), bearing in mind also social and economic issues (completed)..
- Development of the strategy for soil conservation and the action plan for that strategy (work under way).
- Analyses and assessments of the existing early alert system, observations and prognoses and plans for anti-crisis actions in terms of minimisation of losses resulting from droughts (work under way)
- Assignment of institutions responsible for co-ordination and completion of individual tasks resulting from the action plan.
- Taking into account relevant funds making it possible to pay membership fees for UN CCD and performing the tasks mentioned above in the budget plans of the Ministry of

the Environment and in expenditures plans of the National Fund for Environmental Protection and Water Management.

All the tasks mentioned above have to be completed a half year before the successive, seventh Conference of the parties to the Conventions, in 2005 at the latest.

Bearing in mind that irrespective of the Convention, mitigation of the effects of droughts and counteracting soil degradation has been the basic Polish priority for several years, some of commitments to UN CCD have been already fulfilled, first of all those including evaluation of the state of soils, determination of the most sensitive areas, assessment of the system of monitoring, prognoses and early alert. It pertains also to the relevant legal framework established after 2000. Some of the tasks are under way and will be completed soon, including development of the strategy for soil conservation and action plans.

Establishment of the appropriate institutional structure responsible for commitments to the Convention, finding authors of individual tasks and generating sufficient financial means will be the most demanding tasks.

Also establishment of appropriate systems of motivation mechanisms to develop qualifications, land consolidation and applying the best technologies and practices by farmers and land owners, including owners of summer houses, gardens and parks will be also extremely difficult. First of all, addressees of such mechanisms have to be determined and then appropriate implementation programmes have to be developed.

3. FACTORS DETERMINING IMPLEMENTATION OF THE PROVISIONS OF THE THREE GLOBAL CONVENTIONS

3.1 Identified barriers to implementation of the provisions of the three Global Conventions and potential for overcoming them

3.1.1. Barriers to creating conditions for management of implementation of the provisions of the UN Framework Convention on climate change and the Kyoto protocol and the potential for overcoming them

While conducting analyses of individual issues related to the Climate Convention and the Kyoto Protocol, a number of systemic barriers have been identified (both in the existing legal system and politics), institutional and individual barriers and possibilities for overcoming them were indicated.

A – Systemic barriers

- There are no appropriate legal regulations pertaining to implementation of the Kyoto Protocol mechanisms and in particular the system of greenhouse gas emission trading rules has not been established yet as well as the rules of application of the joint implementation mechanisms (JI).
- The legal bases and the operational system (register, monitoring, verification and certification of the reduced emission units) are lacking, which would prevent Poland from participation in subsidiary mechanisms (especially in the mechanisms of joint implementation and emission trading), they have not been adapted to the EU system, too.
- The national system of inventory and assessment of change in greenhouse emission is not fully prepared to meet the requirements of collecting data on emission to satisfy the needs of reporting for the Conferences of the Parties to the Convention. So far, organisational, institutional, and financial conditions to meet Poland's commitments within the scope of reporting, monitoring and verification of the achieved emission levels have not been provided yet.
- The system of monitoring and observation is not sufficiently financed, which, among others, hinders development of research on climate change and its impact on the economy and society.

- Specific reduction targets for the second period of commitments (2013-2018) as a basis for negotiating another Protocol to the Convention are lacking. Preparations aiming at ensuring full, active participation of the Polish party in negotiations related to the second period of commitments (2013-2018) are at the very initial stage.
- Financial support with public means for policy instruments related to industry: programmes for cleaner production, programmes of environment management, certification and labelling systems is insufficient.
- There is a lack of long-term strategies for sectors of the national economy including specific activities and scenarios for greenhouse gas emission reduction by individual sectors and separately for each gas mentioned in Annex A to the Kyoto Protocol (that is one of the short-term priorities for the National Climate Policy until 2006).
- Poland's climate policy is poorly integrated with other national policies, first of all with policies of infrastructural character (transport), as well as with power engineering, industry, agriculture, forestry, waste management, hard coal mining, etc.
- Systems of human resources training in the field of environment protection have not been sufficiently developed, particularly at the local level.

B- Overcoming systemic barriers

Overcoming the barriers identified at the systemic level is in most part possible through taking a number of organisational and administrational measures, conducting R&D projects or - in some cases - co-ordinating of activities and projects that have been already started.

They include, among others.:

- Finishing the tasks resulting from the Accession Treaty, including the following.:
 - work conducted by the Ministry of the Environment on establishment of the National System of Allowance Allocation for pollutant emissions, specifying among others emission limits, a list of emission sources covered by the trading scheme, methods for allowance allocation;
 - work on the law adapting the Polish legal system to the Directive establishing the UE system of emission trading;
 - work on preparing regulations on application of the JI mechanism.
- Implementation of legal bases and an operational system (register, monitoring, verification and certification of the reduced emission units - CERU). There is potential for establishment of such a system by means of the substantive departments of the Ministry of the Environment, however, appropriate staff should be trained in that field.

- Establishment of the national system of inventory and assessment of change in greenhouse gas emissions at the levels of companies, provinces and the whole country and absorption of those gases by forests and soils applying the "bottom-up" approach. It would be recommended to improve organisational, institutional, and financial conditions necessary for preparing inventory reports and governmental reports and periodical preparation of scenarios for emission in 2008-2020.
- Extending scientific research so that it is aimed at better learning climatogenic processes, assessment of climate impact on the environment, society and the economy and potential for adaptation to the modified climate conditions. R&D institutes of individual ministries have considerable potential for conducting such projects (Institute of Meteorology and Water Management, Institute of Environmental Protection, Research Forest Institute, Institute for Ecology of Industrial Areas, Maritime Institute, Institute of Soil Science and Plant Cultivation).
- Continuing negotiations within the European Union. It is recommendable to conduct additional training of the staff taking part in negotiations related to the Convention and the Protocol and measures taken at the national level.
- In order to enhance the system of financing environment protection it would be recommendable to consider possibilities for making changes in the financial-tax policy in the field of environment protection (prices, subsidies, taxes) with the view to integration with Poland's climatic policy taking into account external costs and elimination of environment-unfriendly subsidies while making decisions.
- Developing a strategy for reduction in emission of greenhouse gases in the Polish economy until 2020 by sectors and separately for each gas and performing periodical verification of that strategy basing on the documents compiled at the Ministry of the Environment including the executing programme for Poland's climatic policy entitled *The programme for reduction in greenhouse gas emissions* and the document *The detailed guidelines and instructions for working out programmes for reduction in greenhouse gas emissions in individual sectors of the national economy*.
- Enhancement of integration of climate policy with the economic and social policies. The process of integrating policies has been started at the Ministry of the Environment upon adopting the National Climate Policy by the Council of Ministers in November, 2003. Then, the aforementioned executing programme has been prepared. The aims and activities included in those materials are to serve the purpose of integrating Poland's climatic policy with sectoral policies which will be used for developing national policies, strategies, and action plans in such fields of the national economy as power engineering, industry, transport, municipal-social sector, agriculture and forestry, mainly in the form of general guidelines referring

to preparation of the "Environment protection" part of those documents but also including the principle of an integrated approach. It is believed that establishment of the Steering Committee for implementation of the Climate Convention and Kyoto Protocol will considerably improve the process.

- Enhancement of training systems, particularly at the local level, employing skilled staff, providing supplementary training at a current basis. There is a potential for enhancement of the training system and the Ministry of the Environment and The Environmental Training Centre hold the imitative.

C- Institutional barriers

At the institutional level, the main barrier results from a lack of formal structure of steering and management of implementation of the Climate Convention and Kyoto Protocol in Poland at the national level and appropriate governmental and self-governmental agencies, and besides:

- A lack of a long-term and clear institutional system of climate protection management.
- A lack of any organisational body keeping register of allowances for greenhouse gas emission.
- A lack of any organisational body providing regular prognoses of emission and absorption of greenhouse gases.
- A lack of institutional arrangements at the ministry level, both at the Ministry of the Environment and at other ministries and institutions that would contribute to effective adaptation of the mechanisms set out in the Kyoto Protocol and implementation of the Climate Convention.
- Insufficient number of staff at the Departments of the Ministry of the Environment responsible for implementation of the Climate Convention and the Protocol (among others for working out, developing and implementing the policy and legal regulations related to the two agreements).
- Unsatisfactory inter- and intra-institutional flow of information, that is, between ministries and departments, including the Ministry of the Environment.
- Poor or non-existing flow of information between governmental agencies included into the process of implementation of the Climate Convention and Kyoto Protocol and self-governmental agencies.

D- Overcoming barriers at the institutional level

Overcoming the identified above barriers at the institutional level is possible providing several organisational and administrative measures are taken, relevant research is conducted or, in some cases, already initiated actions and projects are continued. That includes in particular the following::

- Re-establishment of the Steering Committee for the climate protection policy. The Deputy Minister of the Environment should be the Committee chairman, equally high-ranked representatives of the Ministry of Foreign Affairs, Economy, Finance, Transport, and Agriculture and representatives of the Ministry of the Environment, NGOs and independent experts should be members to the Committee.
- Enhancement and clear defining the unit within the Ministry of the Environment responsible for issues related to meeting obligations following from the Climate Convention. At present, the Joint Implementation Secretariat operates within the National Fund for Environmental Protection and Water Management, and besides there is the Secretary dealing with administrative and technical aspects of fulfilling obligations of the Ministry of the Environment resulting from some of the international agreements and participation in international organizations, including the Climate Convention, operating at the Institute of Environmental Protection.
- Assigning organisational units at ministries responsible for implementation of the Climate Convention and precise specification of the scope and forms of co-operation between them.
- Establishment of the national register of emission allowance units at the National Emission Centre (KCIE), which would make it possible to make use of the resources collected by the Centre throughout the three last years in an effective manner and link the register with the system of emission inventory. In order to do that KCIE financing and operating on a task-related basis should be given up and the legal bases for functioning of the organisation in the institutional system of environmental protection management in Poland should be established.
- An increase in workforce to deal with the Climate Convention and Kyoto Protocol at the Department of Environmental Policy and Department of Environmental Protection Instruments.
- Developing clear procedures for inter- and intra-institutional information flow to fulfil effectively all the obligations following from the Convention and Kyoto Protocol, e.g., compiling governmental reports, participation in their reviews and responsibility for the data delivered.

E – Barriers at the individual level

Insufficient awareness of changing requirements related to compilation of official reports constitutes the barrier at the individual level. That results in not fully satisfactory quality of reporting to the Conference of the Parties to the Climate Convention and Kyoto Protocol.

At all levels of governmental and self-governmental agencies and particularly at the local level, insufficient training of the workforce in the field of environment protection constitutes the barrier.

F – Overcoming barriers at the individual level

It is possible to overcome barriers at the individual level at governmental and self-governmental agencies through training initiated by the Ministry of the Environment. The following measures are recommended to meet the aim:

- Improvement in quality of reporting (and its scope) by relevant units thanks to participation in reviews of national reports and in training sessions and workshops organised by the UN FCCC Secretary and other competent bodies.
- An increase in staff numbers, particularly at the local level, employing skilled staff, conducting supplementary training on a constant basis.

3.1.2 Barriers to providing appropriate conditions for management of fulfilment of provisions set out in the Convention on Biological Diversity and Ramsar Convention and the potential for overcoming them

A – Barriers at the systemic level

The following agents are the main obstacles to provide appropriate conditions to fulfil effectively the provisions laid down in the *Convention on Biological Diversity* and *Ramsar Convention* at the systemic level:

- Poor condition of the national economy and low national income cause that policies, strategies and the legal system have to be adapted (which certainly means decline in quality) to the level of country development and financial resources which consequently leads to marginalisation of issues related to nature conservation in the light of serious material concerns among people;
- Decision makers' attention is focused mainly on achieving short-term objectives that are often conflicting with aims of long-term strategies.
- Insufficient environmental awareness of decision-makers at the national level out of the Ministry of the Environment, who are responsible for developing the policy and legal system, which are friendly to conservation and sustainable use of natural resources.

- Unsatisfactory structures and mechanisms for management of the State.
- Insufficient level of information and consultations among ministries and also province governors and their services.

B – Potential for overcoming barriers at the systemic level

Overcoming of the barriers at the systemic level identified and mentioned above will require taking among others the following measures:

- Depending on the needs and potential, creating or updating strategies and action plans and programmes related to:
 - possible economic incentives resulting from activities for biodiversity conservation;
 - establishing links between biodiversity conservation and physical planning at all levels;
 - conservation (and possible population enhancement or reintroduction) of individual species and habitats preceded with decent valuation;
 - taking into account principles of biodiversity conservation in different sectors of the national economy, which have adverse effects on the natural resources, introducing obligation to observe those principles into the legal system, as well as to follow strict guidelines on minimisation of adverse effects and natural compensation;
 - mechanisms of co-operation and exchange of information between individual ministries;
 - making use of the scientific potential in relation to assessment of condition, identification and economic use of biological diversity in a more effective manner;
 - monitoring of biological diversity based on uniform criteria; dissemination of monitoring results along with recommendations related to conclusions following from its results;
 - education and information.
- An increase in financial means spent on activities related to implement the Convention provisions, including establishment of an incentive system and providing possibilities of extending contribution of non-budget financial means (e.g., self-governmental) as well as subsidies from individuals and companies, an analysis of the tax system should be performed in this context; *The regulation on the acceptable level of state aid spent on environment protection* adopted by the Council of Ministers on the 10th of December, 2002 (Dz. U. No. 31, item 1938), land tax exempt, and a possibility of one-percent deduction from tax given to public benefit organisations.

- Following the *polluter pays principle* in connection to the existing system of special purpose funds.
- Encouraging self-governments to introduce the Convention provisions into their programmes of sustainable development and environment protection programmes as well as into the studies and local plans of spatial management; enhancement of the system of supervising and enforcing fulfilment of the Conventions obligations by self-governments;
- Maintaining, enhancing, and developing the already worked out and historically conditioned National System of Protected Areas in strict connection to the NATURA 2000 network.
- Developing and implementing the system of ecological corridors at the national, regional and municipal levels, including appropriate provisions in local plans of spatial management.
- Modifying the system of environment management (at the level of legal acts) preceded by in-depth review of the whole legal and international legal systems so that it will become effective and ready for implementation of the Conventions, including, *inter alia*, making requirements of staff qualifications at specific institutions stricter, elimination of unnecessary overlap of competence of various bodies and agencies - e.g., responsibility for nature conservation within the area of State Forests.
- Legitimisation of the criteria defining thresholds of intensification in agricultural production (developing the national map of agricultural use of productive space in intensive and extensive manners).
- Establishment of the financial system ensuring payments for extensive agriculture.
- Introduction of the Code of Good Farming Practice for common use.
- Implementation of agri-environmental programmes as a way of management, which is alternative and equal to intensive farming.

C – Barriers at the institutional level

The main barriers to providing appropriate conditions for effective implementation of the Conventions provisions at the institutional level include the following:

- Overlap of authorities competence or no specific body appointed to perform tasks related to nature conservation
- Too rigid rules of operation of individual agencies, insufficient level of information exchange.
- Excessively developed bureaucratic procedures in agencies dealing with nature conservation, staff that should deal with substantive matters busy with other, non-substantive duties.

- A lack of specialists in the fields related to the Convention provisions at many institutions in spite of the fact that tasks related to biodiversity conservation are assigned to a given institution. Often it results in incapability to take appropriate measures or performing them in a non-professional manner.
- Insufficient knowledge of issues related to nature conservation among office workers
- No jurisdiction links between authorities of individual agencies and services.
- Strong pressure on commercial use of the natural resources (that pertains both to legislative bodies and politicians and public administration searching for additional sources of income for the state, district or municipality).

D – Potential for overcoming the barriers at the institutional level

Overcoming the barriers at the institutional level identified and mentioned above will be possible providing that the following measures are taken:

- Conducting suitable re-organisation of public administration offices consisting in exclusion of units responsible for the environment (often in relation to agriculture, land reclamation) out of departments and establishment of independent units responsible for nature conservation (also Provincial Nature Conservation Officers), directly reporting to the unit head province governor, marshal, district governor, municipality head (mayor, president).
- Enhancement of services responsible for nature conservation in terms of workforce and competence.
- Specifying the rules of co-operation between individual institutions with NGOs in order to make use of their substantive potential and willingness to perform programmes and actions directly related to conservation and restoration of the natural resources.

E – Barriers at the individual level

The main obstacles to providing appropriate conditions for effective implementation of the Convention provisions at the individual level include the following:

- insufficient preparation of graduates from universities for work, both in terms of their knowledge and practical skills.
- Financial limitations to wide participation in many training sessions.
- Unfamiliarity with the law, sometime personal reluctance to improve one's own skills.
- No financial motivation, salaries of substantive staff (not managers) are low so that a substantial part of office workers not having a civil servant status perform extra jobs in any fields at the cost of their basic job; low salaries also make them succumb to the

temptation of corruption more easily; in some cases a low ethical level of employees at the public administration; there are also cases of withdrawing complaints from courts of appeal in return for subsidies or other benefits by NGO's members participating in proceedings as a one of the parties. .

- Direct pressure exerted on an office worker in relation to relevant decisions made to enhance economic growth not taking into account or partly ignoring environmental issues.
- Strong pressure on commercial use of the natural resources (it pertains both to individual investors and self-governments wishing to provide as good conditions for development of entrepreneurship as possible not taking into consideration biological diversity while looking for sources of income; that applies also to an increase in profitability of farms).

F – Potential for overcoming barriers at the individual level

In order to overcome the identified obstacles to implementation of the Convention provisions at the institutional level, particularly development of educational activity is recommended, comprising the following:

- Conducting regular training of the state administration staff dealing with nature conservation to improve their knowledge and practical skills.
- Carrying out periodical, regular training in the field of biological diversity for people who do not deal directly with the nature but whose activity might have adverse effects on the natural resources, e.g. office workers responsible for transport, building industry, physical planning, water management, agriculture.
- Mass training of farmers, dissemination of the *Code of good farming practice*.

3.1.3 Barriers to providing appropriate conditions for implementation of the provisions laid down in the Convention on desertification in countries affected by major droughts and/or desertification, particularly in Africa and the potential for overcoming them

A – Barriers

The main obstacles to provide appropriate conditions for effective implementation of the provisions laid down in the Convention on desertification in countries affected by major droughts and/or desertification, particularly in Africa include the following:

- Two Ministers, many departments at the Ministry of Environment and Ministry of Agriculture and Rural Development, several research institutes and public administration at various levels are responsible for management of implementation of the provisions laid down in the Convention.

- So far, Poland has not developed the national system of compensations, insurance, and hedging mechanisms in case of long-term drought besides emergency funds from the State budget reserve, which partly compensate farmers' losses. So, it will be necessary to initiate work on development of such a stable system.
- So far, Poland has not developed a system of financial and technical aid for the developing countries.

B – Potential for overcoming barriers

Overcoming of the barriers identified and mentioned above will require taking the following measures:

- Establishment of the consistent and clear management structure and precise specification of the range of responsibility for all the levels of that structure.
- Initiating work on establishing a stable system of compensations, insurance and hedging in case of long-term drought.
- Establishment of an appropriate legal system allowing for providing the developing countries with financial and technical aid (the present one does not allow for such aid) and establishment of systems of distributing that aid. At the present state of public finances, generating financial resources from the State budget and specification of distribution addressees of those means will be the most difficult tasks.

3.2. Strong and weak points with respect to implementation of the provisions of the three Global Conventions

3.2.1 Strong and weak points with respect to implementation of the provisions of the UN Framework Convention on Climate Change and Kyoto Protocol

While assessing conditions of fulfilling the obligations resulting from the UN FCCC and the Kyoto Protocol and the national potential for achieving the priority aims of the two agreements, the strong points of the existing national system of environment protection which enhance implementation of the provisions laid down in the Convention and Kyoto Protocol and those which do not and for which there is a need for introducing more effective solutions were stressed. The most important results have been listed in the table below:

	Strong points of the system of environment protection, enhancing implementation of the Climate Convention provisions	Weak points for which there is a need for providing conditions improving effectiveness of the Climate Convention provisions
1.	<ul style="list-style-type: none"> Adoption of Poland's climate policy by the Council of Ministers in November, 2003. <p>Development of the executing programme for Poland's climate policy entitled <i>The Programme for reduction in greenhouse emission</i> and the document <i>Detailed guidelines and instructions for working out programmes for reduction in greenhouse gas emissions for individual sectors of the national economy</i>.</p>	<ul style="list-style-type: none"> The existing system of management of the Convention and Kyoto Protocol implementation is rather ineffective which results from termination of operations of the Steering Committee for the Climate Convention and termination of operations of the Executing Agency for the Climate Change (EACC). That leads to lower effectiveness of the following: <ul style="list-style-type: none"> - emission inventory system, - climate change monitoring system; - emission trading - register of units of allowances for emission trading; - work in forestry sector on attaining aims of the UN FCCC.
2.	<ul style="list-style-type: none"> Conducting the far flung process of performing tasks resulting from the Accessions Treaty. Ongoing harmonisation of the Polish legal system and policy on climate protection with policies and actions set out in the European Programme on Climate Change of the European Union, upon completion of the programme it will be easier for Poland to make favourable commitments in the second period. 	<ul style="list-style-type: none"> Unsatisfactory system of management of the implementation of the Convention and the Kyoto Protocol at the national level and levels of individual agencies for reasons mentioned at (1).
3.	Progress in fulfilment of Poland's obligations resulting from the Kyoto Protocol (according to inventory in 2001, reduction in GHG by 32% in relation to base year 1991. Poland is obliged to reduce greenhouse gas emission in the first commitment period (2008-2012) by 6% in relation to the base year. In Poland's climatic policy, reduction in energy consumption per GNP unit is assumed in the medium-term perspective - by 25% in relation to year 2000 by 2010 and by 50% - by 2025.	<ul style="list-style-type: none"> Still relatively high energy and material consumption of the ongoing economic processes although improvement in this field has been already recorded.

4.	<ul style="list-style-type: none"> • Poland has developed a favourable mechanism of financing investment projects through environmental funds. 	<ul style="list-style-type: none"> • However, the system of financing environment protection turned out to be rather ineffective and too much dispersed in the face of massive challenges that Poland is meeting after integration with the European Union. At the same time incomes from charges and fines for use of the environments are declining, besides, incomes from product charges are smaller than expected, importance of the Bank of Environment Protection is declining, there is no consistent system of management of dispersed financial means.
5.	<ul style="list-style-type: none"> • Operation of the National Centre for Emission Inventory (KCIE) makes it possible to compile reports on inventories to meet the Climate Convention needs in a professional and timely manner. 	<p>The Centre is financed on an irregular basis (through contracts with the National Fund for Environmental Protection and Water Management), and the system of transferring information to KCIE has not been formalised (there is no established legal obligation to transfer such information specifying its source, scope, form, and time schedules).</p>
6.	<ul style="list-style-type: none"> • Operation of the National Environmental Monitoring and supervision activity of the Inspection for Environmental Protection provide valuable information of the state of the environment and processes taking place within the environment. 	<ul style="list-style-type: none"> • In relation to the needs, not effective enough system of information collection and processing. • No central database. • Unclear division of competence and relationships between the Chief Inspection for Environmental Protection and Provincial Inspections for Environmental Protection, which contributes to ineffectiveness of the whole system.
7.	<ul style="list-style-type: none"> • Adopting the Strategy for changing production and consumption patterns to those which help implementation of the principles of sustainable development adopted by the Council of Ministers in October 2003 initiated the process of implementing measures creating more climate-friendly behaviour patterns (activities creating such patterns are the main medium-term- and long-term priorities on the National Climate Policy of Poland). 	<ul style="list-style-type: none"> • Insufficient involvement of the main actors in the process, including private sector, business and science and local communities in issues covered with the Climate Convention and Kyoto protocol. <p>Among others it results from insufficient information flow with respect to measures taken within the framework of the Convention and the Protocol from the state administration to the above bodies.</p>

3.2.2 Strong and weak points with respect to implementation of the provisions of the Convention on Biological Diversity and Ramsar Convention

In the table below, the most important strong and weak points of the system of environment protection in the fields related to implementation of the provisions of the Convention on Biological Diversity are listed.

Strong points of the system of environment protection helping to implement the Convention on Biological Diversity	Weak points for which there is a need for providing conditions improving effectiveness of implementation of the Convention on Biological Diversity
<ul style="list-style-type: none"> Adopting <i>The National Strategy for Conservation and Sustainable Use of Biological Diversity</i> along with the <i>Action Plan</i> by the Council of Ministers in February, 2003. 	<ul style="list-style-type: none"> No instruments for enforcing the provisions laid down in the <i>Strategy and Action Plan</i>. Priorities specified in the Action Plan not taken into account in the national financial policy.
<ul style="list-style-type: none"> Ratification of most of the conventions and agreements related to nature conservation. 	<ul style="list-style-type: none"> No financial means for fulfilling by Poland some of the obligations following from the Convention.
<ul style="list-style-type: none"> Initiation of the process of implementation of the Natura 2000 Network basing on the provisions set out in the Birds Directive and Habitat Directive of the European Union. 	<ul style="list-style-type: none"> No detailed identification of the conservation subject No complete network functioning concept developed. No instruments of financing the network established. Insufficient knowledge and social awareness of usefulness and assumptions of the Network 2000 network functions.
<ul style="list-style-type: none"> Existence of the subsystem of nature monitoring within the framework of the National Environmental Monitoring 	<ul style="list-style-type: none"> Very limited scope of monitoring due to modest financial means. No integration of actions and data within the National Environmental Monitoring.
<ul style="list-style-type: none"> Existence of highly qualified specialists and scientific institutions dealing with problems of biological diversity. 	<ul style="list-style-type: none"> Very limited financial means on research, including that of pure science character, also taxonomy. .
<ul style="list-style-type: none"> Functioning of the National System of Protected Areas. 	<ul style="list-style-type: none"> Low level of social approval for restrictions resulting from establishment protected areas and assigning new protected areas
<ul style="list-style-type: none"> Operation of nature conservation services. 	<ul style="list-style-type: none"> Limited competence of nature conservation services, particularly those of landscape parks.

	<ul style="list-style-type: none"> • Insufficient nature conservation staff at the provincial level. • Limited financial means on operations of nature conservation services.
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3.2.3 Strong and weak points with regard to implementation of the provisions of the Convention to combat desertification in countries experiencing serious drought and/or desertification, particularly in Africa

Two years after ratification of Conservation to combat desertification it is difficult to evaluate strong and weak points with respect to implementation of the provisions of that Convention in Poland in a objective and unambiguous way. Their identification was out of necessity based on evaluation of performance of administration in relation to land protection and that is not identical to the Convention requirements. Some of tasks considerably reach beyond those requirements (e.g., the programme for increasing retention) and some actually ignore those requirements (international aid).

It is also hard to evaluate the strong and weak points with regard to implementation of the Convention at the global level. However, documents of the Conference show, that in fact the Convention is not being implemented at all. That is confirmed by the opinions of the European Union countries expressed during consultation meetings of the EU Working Party on International Environment Issues (WPIEI).

Strong points of the system of environment protection helping to implement the Convention to combat desertification	Weak points for which there is a need for providing conditions improving effectiveness of implementation of the Convention to combat desertification
<ul style="list-style-type: none"> • UN CCD the first ever legally binding multiparty agreement that regulates principles of acting in the face of droughts and desertification. 	<ul style="list-style-type: none"> • UN CCD tries to control by force of law soil protection (land protection) which according to the United Nations Chart is subject to sovereign jurisdiction of individual states-parties to the Convention, ensuring integrity of private ownership, including land.
<ul style="list-style-type: none"> • UN CCD obliges countries to protect soil against over drying, establish an early alert system, conduct scientific research, co-operate with other countries, aid countries affected by droughts and desertification, including financial aid and technological assistance, to report actual state and progress in implementation of the 	<ul style="list-style-type: none"> • UN CCD impose certain obligations on countries-parties to the Convention, however, it neither specifies any sanctions for not observing the Convention nor it introduces any applicable appealing legal procedures except for extremely ineffective complaints at the forum of the

Convention provisions.	Conference of the Parties and subsidiary bodies.
<ul style="list-style-type: none"> By force of appropriate regulations, UN CCD establishes the management structure for management of implementation of the Convention provisions, including Conference of the parties, auxiliary bodies and Secretariat 	<ul style="list-style-type: none"> UN CCD does not introduce any elements of international supervision over operations of the Convention bodies and Secretariat, allowing for, <i>inter alia</i>, establishment of additional working groups, uncontrolled international travels of the General Secretary and the staff and essentially uncontrolled expenditures.
<ul style="list-style-type: none"> By force of appropriate decisions of the Conference of the Parties. UN CCD establishes the agency and mechanism of financing projects and actions for the developing countries and countries at during transformation. 	<ul style="list-style-type: none"> UN CCD, assigning GEF as the main source of financing implementation of the Convention provisions does not specify any rules for choosing priorities and projects, give freedom of choice in this matter to the GEF Council, who do not rate UN CCD issues as a high priority due to because or rather unspectacular character and relatively small impact of those issues.
<ul style="list-style-type: none"> By force of the decision of the Conference of the Parties, UN CCD decides that implementation of the Convention regulations is subject to regionalisation, depending on the specific needs of the countries in Africa, Asia, Latin America, northern part of the Mediterranean region and Central Europe. 	<ul style="list-style-type: none"> Imposing the obligation to transfer technology, UN CCD, does not specify the legal status of so called Intellectual Property Rights (IPR).
<ul style="list-style-type: none"> By force of the decision of the Conference of the Parties UN CCD, has adopted an annex to the Convention, in which special conditions in Central Europe, including Poland are taken into account, where desertification does not take place, however drought ad soil degradation are a commonplace. 	<ul style="list-style-type: none"> So far, Poland has not developed any administrative body for supervising implementation of the Convention regulations (National Secretariat, a substantive department at the Ministry of the Environment responsible for the supervision), which is the reason the implementation is limited exclusively to soil protection that has been performed for years in a manner which is totally unrelated to the UN CD.
<ul style="list-style-type: none"> According to the regulations of the Law on Divisions and the Regulations of the Council of Ministers operations, the Minister of the Environment, co-ordination of national activities and supervision over implementation of the UN CCD regulations fall into the range of 	<ul style="list-style-type: none"> By force of the law, management of soil protection in Poland has been divided among the Ministry of the Environment (conservation of the natural resources, protection of surface and groundwater, biological diversity, forestry, monitoring, early alerts), Minister of

<p>responsibility of the Minister of the Environment who also supervises national water management in relation to surface waters and groundwater and management of the natural resources.</p> <ul style="list-style-type: none"> • Poland has developed the very comprehensive legal system controlling soil protection, land use, physical planning and water management in catchment basins and appropriate national programmes. 	<p>Agriculture and Development of Rural Areas (use of lands and their qualification, financial support, making use of foreign aid), Minister of Infrastructure (physical planning), Minister of Internal Affairs and Administration (supervision over operations of local authorities) and other ministers including Ministers of Health, Scientific Research, Finance, etc. For that reason there is no administration body supervising soil protection in a consistent manner and responsibility for the task is diffused among many ministers.</p> <ul style="list-style-type: none"> • Also the vertical division of competence is extremely imprecise, particularly between municipalities and districts, which has to lead to conflicts and diffusion of responsibility also within the vertical structure.
<ul style="list-style-type: none"> • Poland posses very comprehensive collections of information on the state of soils and technologies of their protection. 	<ul style="list-style-type: none"> • Rich collections of information on the state of soils are very much dispersed among services and institutes of the Minister of the Environment and the Ministry of Agriculture and Development of Rural Areas and they are incompatible one with another, developed with different methods, most often as a result of short-term orders. Thus, attempts to establish one, central database may pose major problems. • There is no consistent system of compensations for losses resulting from long-term droughts and the present insurance systems against natural disasters is not popular with farmers who keep on relying on State budget aid.
<ul style="list-style-type: none"> • Most of location decisions and those related to land management are made at the municipality level. • Municipality authorities hold the initiative with respect to „small” water management (irrigation, draining, fish ponds, mill waters). • Municipal authorities posses their own budget and non-budget (funds) financial 	<ul style="list-style-type: none"> • Municipal self-governments were granted with legal instruments necessary for land management, however, they were not followed by appropriate financial means or legal regulations making it possible to generate own financial resources. • Human resources are the weakest point, representatives of authorities at the municipal level are least educated

means and are entitled to apply for financing to the authorities at higher levels.	(permits are issued by people who are not authorised), poorly equipped with technical devices, not prepared to fulfil the supervisory function.
<ul style="list-style-type: none"> Almost 100% of agricultural land is private now except for a small part still owned by the Agency for Restructuring and Modernisation of Agriculture. A Polish farmer is exceptionally attached to his land and takes great care of its condition. A large group of Polish farmers apply traditional methods of cultivation of native, not genetically modified and not imported grain and originated from the native biodiversity resources, which has to help to achieve aims of both Conventions, UN CCD and CBD at that level. 	<ul style="list-style-type: none"> Polish agricultural lands are fragmented more than those in any other European country, and farms up to 5 ha make up the highest proportion of farms. Polish farms, particularly the smallest ones are characterised by a very low level of mechanization, very low level of hygiene and a low level of agrotechnical knowledge. Polish farms are usually poor, with no investment means and thus farmers are unwilling to insure or invest in joint targets, e.g., land reclamation.

3.3 List of the recommended activities aiming at providing favourable conditions for implementation of the three Global Conventions

3.3.1 List of the recommended activities aiming at providing conditions for implementation of the UN Framework Convention of Climate Change (UN FCCC) and the Kyoto Protocol

After conducting an analysis of national conditions for implementation of the Climate Convention and the Kyoto Protocol including present institutional and legal conditions, also an assessment of the existing needs related to providing conditions favouring fulfilment of Poland's obligations resulting from the Convention and the Kyoto Protocol has been performed. Introduction of the necessary institutional changes, development and implementation of several legal regulations will make it possible to fulfil Poland's obligations more effectively and will make the process of implementation more clear.

The analysis showed that building the national potential for improvement in implementation of the Convention and Protocol is needed in those sectors whose activity is related to the Climate Convention and climate change, that is, power engineering, industry, agriculture, forestry, soil degradation, sewage management and waste management. The needs for the following measures are the most obvious:

- Institutional enhancement.
- Establishment of the system of emission inventory (including reorientation of the „top-down” approach to the „bottom-up” one).
- Development of the operational and legal systems for emission trading.
- Enhancement of the system of climate change monitoring.
- Establishment of registers of emissions and allowance units for emission trading.
- Improvement in co-operation of the forestry sector with the process of climate change.
- Improvement in intra- and inter-institutional information flow.

The following measures should be taken in order to improve effectiveness of implementation of the obligations resulting from the Climate Convention:

- To establish a clear and permanent institutional system of management for implementation of the Climate Convention and Kyoto Protocol. In order to do that, a Steering Committee responsible for implementation of obligations resulting from the Climate Convention and Kyoto Protocol should be established (or Steering Committee on Implementation of Poland’s Climate Policy (the name is subject to negotiations)).

The Committee should be composed of the following members: representatives of the Ministries of the Environment, Economy, Agriculture, Infrastructure, Finance, Foreign Affairs, Government Centre for Strategic Studies, National Fund for Environmental Protection and Water Management, Inspection for Environmental Protection, General Directorate of the State Forests, Institute of Environmental Protection (Executive Unit for Administrative and Technical Support for the Climate Convention and the Protocol), Forest Research Institute, EcoFund Foundation and a representative of NGOs (voting). One of the Deputy Ministers at the Ministry of the Environment should be a Committee Chairman and Committee members from other Ministries should be of equal rank. The Ministry of the Environment should be represented by Directors or Deputy Directors (and experts, if needed) of the Department of Environmental Policy, Department of Environment Instruments, Department Forestry, and Department of International Co-operation.. There should be a possibility of inviting outstanding experts in individual fields in an advisory capacity should the need arise. Committee meetings should take place according to needs and serve the purpose of discussing decisions and accompanying conditions. Future Poland’s obligations in the Second Commitment Period under the Kyoto Protocol should be discussed in the first period.

- To provide financial support for the Institute of Metrology and Water Management in order to ensure Poland’s fulfilment of the Convention requirement concerning research and monitoring of climate change on a regular basis.

- To change the status of the Provincial Inspections for Environmental Protection, which should be subordinated directly to the Chief Inspector for Environmental Protection.
- To enhance the National Emission Centre (KCIE) operations through appropriate legal instruments, ensuring continuous financing, employing more staff and equip them with additional computer hardware.
- To establish an organisational unit keeping the national register of allowance units for greenhouse gas emissions and transactions in emission trading (making use of KCIE potential and achievements would be a good idea).
- To assign an organisational unit which will continually provide prognoses for greenhouse gas emissions in a continuous and consistent manner to meet the needs of the Climate Convention and Kyoto Protocol (making use of KCIE potential and achievements would be a good idea).

Besides, the following measures are of importance for effective fulfilment of Poland's obligations:

- Further harmonisation of the Polish legal system with that of the European Union with respect to climate change, which will require, *inter alia*, implementation of regulations pertaining to emission trading and allocation of allowances for emission trading.
- Establishment of an operational system (register, monitoring, emission verification) enabling Poland to take part in the flexible mechanisms, particularly JI and emission trading as well as its harmonization with the European Union system.
- Establishment of the national system of inventory and assessment of change in greenhouse gas emissions at the level of companies, provinces and the country and absorption of those gases by forests and soils and issuing appropriate regulations in that field (in relation to that, it is necessary to accelerate urgently the work on amendments to the *Law on Environment Protection* and issuing enforcing provisions to the Law regulating methodology of keeping records for all the entities, which serve as a basis for calculating fees for gas emissions of into the air (including CO₂) by individual entities.
- Compilation of inventory reports and governmental reports, including the fourth governmental report (by 31 December, 2005) and a report on progress of fulfilment of the Kyoto Protocol commitments by Poland, according to Article 3 par. 2.
- Preparing long-term strategies for individual sectors of the national economy (for 2005, 2010, 2015, and 2020), comprising specific measures and scenarios of reductions in greenhouse gas emissions by sectors and separately for each gas listed in Annex A to the Kyoto Protocol.

- Initiating scientific research oriented towards better understanding of climatogenic processes, assessment of climate impact on the society, wildlife resources and economy and also potential for adaptation to changed climate conditions.
- Integrating other sectoral policy into Poland's Climate Policy.

In order to implement effectively the Climate Convention and Kyoto Protocol and Poland's Climate Policy priorities, it is necessary to fulfil a whole range of legal, financial, administrative and substantive requirements in individual sectors of the economy, which are listed below:

Power engineering sector

It is necessary to:

- Implement financial mechanisms supporting production of power from renewable sources (Ministry of Environment/Finance, legal/ financial instrument).
- Introduce certification of origin of electric power from renewable sources (Ministry of Economy and Labour, legal instrument).
- Provide financial support to investments in the field of combined production of electric power and heat (Ministry of Finance/Ministry of Economy and Labour, financial instrument).
- Introduce a system of incentives for companies making investments leading to energy efficiency (Ministry of Finance/Ministry of Economy and Labour, financial instrument).
- Introduce a system of incentives for the public sector encouraging to make investments leading do rational energy use (Ministry of Finance/Ministry of Economy and Labour, financial instrument)
- Prevent from and reduce methane emission from fuel production and distribution (Ministry of the Environment/ Ministry of Economy and Labour, legal instrument), introduce energy efficiency labels (Ministry of Economy and Labour, legal instrument).
- Introduce green certificates (Ministry of the Environment, legal instrument).
- Waive the excise tax on production of electric power based on methane from coal-mines (Ministry of Finance, legal instrument).

Industry sector

It is necessary to:

- enhance energy efficiency of light emitters (standards of energy-saving lighting).
- improve efficiency of electric engines (Ministry of Economy and Labour, legal instruments).
- oblige companies to reduce emission of CO₂ from industrial processes in ferrous and steel industries (Ministry of the Environment, legal instrument).
- Support development of environment friendly and economical methods for reduction in greenhouse gas emission, prevent and reduce methane emission form fuel production and distribution (Ministry of Economy and Labour, legal/financial instrument).
- Introduce regulations limiting consumption of fluorine-based greenhouse gases (Ministry of Economy and Labour, financial instrument).
- Use the best available technologies (Ministry of the Environment, legal instrument).
- Encourage signing voluntary agreements with the industry (Ministry of Economy and labour).
- Develop a set of means supporting operations of small and medium—sized companies, mainly with respect to innovativeness and efficiency improvement (Ministry of Economy and Labour, financial instrument)).
- Promote environment friendly and efficient practices and technologies in industrial activities (Ministry of the Environment and, educational instrument).
- Specify priority research projects oriented towards state-of-the-art environment-friendly and material- and energy-saving production technologies (Ministry of Economy and Labour, State Committee for Scientific Research, legal instrument).

Transport sector

It is necessary to:

- Improve infrastructure for bicyclers and pedestrians (Ministry of Infrastructure, legal and administrative instrument).
- Promote bicycle transport (Ministry of Infrastructure, of Environment).
- Construct motorways, ring roads and fast roads (Ministry of Infrastructure, legal instrument).
- Tighten emission standards for combustion engines (Ministry of Infrastructure, legal instrument).

- Take measures to reduce greenhouse gas emission from air transport (Ministry of Infrastructure, legal instrument).
- Promote public transport to improve air quality (Ministry of Infrastructure/ Ministry of Finance, legal-administrative instrument).
- Develop railway transport, including combined transport (Ministry of Infrastructure, combined instrument).
- Implement local transport plans for schools to ensure public transport for students (Ministry of Infrastructure, organisational instrument).
- Promote plans of company transport service to provide collective transport for company staff (Ministry of Infrastructure, voluntary instrument).
- Promote use of environmentally-clean vehicles to change the consumerist lifestyle (Ministry of Infrastructure/ Ministry of Finance, legal/educational instrument).
- Conduct informational-educational activity related to the necessity for change in behaviour (Ministry of Infrastructure/ Ministry of Environment, educational instrument).
- Improve quality of transport by water to increase the amount of goods transported that way (Ministry of Infrastructure/ Ministry of Environment, legal/administrative instrument).
- Improve traffic flow and parking patterns for heavy load vehicles in cities to enhance traffic in cities (Ministry of Infrastructure, legal instrument).
- Take technical measures related to vehicle construction to promote vehicles that produce lower pollution (Ministry of Infrastructure, legal instrument).
- To conduct activities for a change in patterns of long-distance travels to the benefit of railway transport (Ministry of Infrastructure/ Ministry of Environment, educational instrument).
- Promote maritime and inland shipping and transport of goods by water (Ministry of Infrastructure, educational instrument).

Agriculture sector

It is necessary to:

- Disseminate the Good Farming Practice Code to promote actions related to reduction in emission of pollutants from agricultural production (Ministry of Agriculture and Rural Areas).
- Disseminate the use of energy-saving technologies in agricultural production (Ministry of Agriculture and Rural Areas, educational instrument).

- Disseminate implementation of new technologies in relation to the use of plant products as material for power production and biogas technologies for utilisation of manure to promote technologies limiting greenhouse gas emission (Ministry of Agriculture and Rural Development, educational instrument).
- Promote afforestation and afforest agricultural land (Ministry of Agriculture and Rural Development, Ministry of Environments, Ministry of Finance, financial instrument).
- Promote and disseminate the use of unconventional energy sources in agriculture and rural areas (Ministry of Agriculture and Rural Areas).
- Develop and promote new technologies of cultivating and harvesting plant biomass intended for use as a renewable energy source and raw material for the industry (scientific units/ Ministry of Agriculture and Development of Rural Areas, research instrument).

Forestry sector

It is necessary to:

- Conduct activities supporting afforestation (Ministry of Environment/ Ministry of Agriculture and Rural Development, financial instrument).
- Counteract changes in land use to reduce deforestation (Ministry of Environment, financial instrument).
- Maintain sound forest management to protect forest ecosystems (Ministry of Environment, legal instrument).
- Perform protection and ecological conservation of forest stability (Ministry of Environment, financial instrument).
- Work out a plan for using wood for energy-related purposes (Ministry of Environment, educational instrument).
- Carry out research on the level of carbon absorption (Ministry of Environment, research instrument).

Waste management:

It is necessary to:

- Reduce waste at source (Ministry of Environment, legal instrument. organisational instrument).
- Develop waste retrieval and recycling (Ministry of Environment, legal instrument).
- Use financial incentives for reasonable waste management (Ministry of Environment, financial instrument).

- Conduct monitoring of emissions from landfill sites to check for CH₄ and CO₂ emission (Ministry of Environment, legal instrument).
- Conduct reasonable waste management through waste sorting prior to disposal (Ministry of Environment, organisational/ educational instrument).

Public utilities, services and households sector

It is necessary to:

- Improve efficiency of production and sending district heat and electric power. .
- Increase utilization of natural gas for energy production.
- Take actions such as thermo-modernisation of residential buildings, window exchange and sealing, change in the standards of thermal protection of new buildings presently in force.
- Introduce energy certificates for buildings.
- Develop renewable energy sources (to limit emission of greenhouse gases, CO₂ and N₂O).

Irrespective of the above, there is a need for implementation of legal and financial regulations in fields other than Poland's Climatic Policy. That means it is necessary to do, among others, the following:

- Perform an analysis and assessment of the system of environmental charges for use of the environment from the point of view of Polish industry competitiveness in international markets to obtain further results in reduction in pollution, including energy-related pollution.
- Initiate mechanisms for easier access of commercial entities, including those in the industrial sector, to the National and Provincial Funds for Environmental Protection and Water Management.

In spite of the necessity for implementation of legal, financial, administrative instruments and operational actions mentioned above, it will be necessary to change the production and consumption patterns occurring at present through taking several measures to improve environmental knowledge and awareness such as:

- Training industry representatives, including mainly those of small and medium-sized companies on limitation of production impact on the environment.
- Training of farmers on the principles of production with environmental-friendly methods.
- Use of the media for promotion of consumer environment-friendly behaviour (with special emphasis on advertising and other short forms of communication).

- Providing easier access to legible and credible information on the environmental aspects of manufactured and consumed goods, e.g., through labelling.
- Development of environment-friendly consumption patterns in households leading to reduction in the amount of wastes and their segregation.
- Promotion of activity and satisfying needs of the general public in the field of science, education, tourism and recreation in a manner favouring sustainable development.
- Providing common, fast and cheap access to services of the information society being, among others, a tool for access to environmental education and a platform for consulting about environmental issues.
- Enhancement of the consumer movement in connection to the environmental movement.

Those tasks should be performed both by governmental bodies (among others Ministry of the Environment, Ministry of Economy and Labour, Ministry of Agriculture and Rural Development, Ministry of Infrastructure, Ministry of Culture, Ministry of Education and Sport, Ministry of Science and Information Society Technology) and local self-governments and NGOs, including consumer ones.

Implementation of sectoral priorities will require working out and bringing into effect a number of instruments (legal, financial, research, organisational ones), which will be enhanced by the ongoing process of harmonisation of the Polish legal system with that of the European Union. The process will also contribute to appropriate reflection of Poland's obligations resulting from UN FCCC, Kyoto Protocol, and decisions of the Conference of the Parties to the Convention.

3.3.2 Summary of the recommended actions aiming at providing favourable conditions for implementation of the Convention on Biological Diversity and Ramsar Convention

Among urgent measures that should be taken to provide favourable conditions for effective fulfilment of obligations resulting from the *Convention on Biological Diversity* and *Ramsar Convention*, the following ones deserve special attention:

A – measures in the systemic sphere

- A review of laws and enforcing provisions with respect to competence of individual authorities responsible for implementation of measures related to biodiversity conservation (often tasks specified in plans, programmes, etc. are not assigned to any governmental or self-governmental body or competence of different bodies overlap and/or competition scope is unclear). Besides, more effective mechanisms of law enforcement should be provided for many tasks in the field of environment

protection, both for governmental and self-governmental authorities and for individuals and legal entities, particularly when unjustified cases of not observing regulations or their inappropriate implementation take place. A review of the legal system should be performed also in the perspective of “cleaning out” acts from arbitrary standards or at least (not all consequences to the environment may be predicted) define the limits to which they should be restricted.

- An analysis of the need for changes in competence and organisation at the level of legal acts, pertaining in particular to the following:

- handing over a part of ministers' competence to lower public administration levels, it should take place as a result of very thoroughly analysed decisions so that decentralisation achieved the intended goal. Unfavourable consequences of handing over some of decisive power pertaining to extraction of mineral resources from a province governor to a district governor are one of examples of adverse effects of not well thought-out decision;
- establishment of a new, independent system of nature conservation management consisting in excluding units responsible for environmental issues (often in connection to agriculture, land reclamation, etc) from departmental structures and establishment of independent bodies for nature conservation (also that of a Provincial Nature Conservation Officer) as units reporting directly to a province governor, province marshal, staroste, municipality head (mayor, president);

or

- establishment of an Environment Agency with a separate nature conservation division.
- An increase in a number of staff at agencies responsible for nature conservation.
- An analysis of the need for reestablishment of a position of a so called expert responsible for nature conservation.

B – measures in the field of co-operation

- Encouraging self-governments to include decisions of the Conventions into programmes of sustainable development and environment protection as well as local development plans and studies; enhancement of the system of enforcing the Convention provisions by province governors.
- Specifying consistent rules for collaboration between public administration and NGOs (including branch ones) in order to exchange information and taking joint actions.

- Establishment of the single Nature Guard through merging Fishing, Hunting and Forest Guards; it is both economical and would meet public demand to revive the Nature Conservation Guard.
- Supporting local nature conservation strategies and programmes, integrating public administration, NGO's, economic organisations, etc. (e.g., the *Green Lungs of Poland Initiative*). Initiative of that type combine limitation of activities adversely affecting the environment with attempts to ensure consistency of the system of protected areas. As a consequence, they promote sustainable forest, agricultural, productive, investment management; the Green Lungs of Poland initiative is one of the best exemplars of search for sustainable development under conditions of high genetic, species, ecosystem, and landscape diversity.
- Establishing a forum for exchange of information and positions between the Ministries and industries responsible for implementation of the Convention provisions on the one hand and the Ministries (industries) whose operations are related to environment degradation and destruction and use of natural resources on the other hand.

C – measures in the field of education and information

- Conducting training for public administration staff working in the field of nature conservation to extend their knowledge and skills on a regular basis.
- Conducting periodical, regular training in the field of biological diversity for people not related directly to the nature conservation but conducting activities that may have adverse effects on natural resources, e.g., clerks responsible for transport, building industry, physical planning, water management, agriculture.
- Co-ordination of training programmes of educational centres in the field of biodiversity conservation.
- Introducing comprehensive education on biological diversity into university curricula, particularly at departments of law.
- Common training of farmers and promoting the *Code of good farming practice*.
- Establishment of widely accessible system of information for publishing messages, statements and communications on threats and results of monitoring conducted by the inspection services.
- Popularisation of access to the research results and valuation results financed and co-financed from public resources.
- Providing access to information on the potential for use of budgetary and non-budgetary resources for measures related to implementation of the Convention provisions along with determination of the rules of using them.

D – measures in the field of scientific research and monitoring

- Carrying out comprehensive research on fauna, flora, fungi and habitats to compile a complete and updated list of endangered species and habitats, performing assessment of threats and proposals for nature saving and protective measures.
- Activating the National Environmental Monitoring for extending nature monitoring; establishment of the system of wide dissemination of the monitoring results.
- It is necessary to establish a consistent and widely accessible system of collecting and processing data on natural resources, threats, and conservation methods, including scientific activities related to biodiversity conservation and sustainable use and making them available to the general public; updating and wide accessibility of the databases within the framework of the *Clearing House Mechanism on Biological Diversity* (CHM) on a current basis are also necessary.

3.3.3 List of the recommended measures to provide favourable conditions for implementation of the Convention to combat desertification in countries experiencing serious droughts and/or desertification, particularly in Africa.

In order to improve effectiveness of implementation of the Convention it is necessary to assign a single body within the central administration responsible for co-ordination of the measures taken. That institution should establish a focal point (National Secretariat) whose operations would include compilation of reports, carrying out a correspondence, keeping records, preparing proposals for positions, exchange of experience and good practices, commissioning studies, expert opinions, organisation of training and promotion. It would be also recommended to establish an agency responsible for operational issues (mitigation of drought effects, preventive actions) and financing sources. Concluding, the following measures should be urgently taken:

- An analysis and decision that in the Governmental structure is to be responsible for implementation of the Convention and establishing a consistent system of management of soil protection in Poland.
- An analysis of feasibility and effectiveness and making a decision about establishment of the national programme of soil protection and mitigation of drought effects, which might include programmes for an increase in small-scale retention and expansion of forests that are actually rather instruments and not objectives per se.
- Improvement (simplification) of the decision-making system with respect to soil conservation and in case of extraordinary hazards. Then centralisation tends to be a better option than atomisation.

- Establishment of a consistent informational system making it possible to make use of all data sources, information and scientific studies (and it is impossible to combine all the monitoring elements at a single institution).
- Improvement of the system of responding to emergency hazards and supplementing it with elements related to long-term droughts.
- Development of the stable and guaranteed system of financing the programme and projects on soil conservation and particularly multiannual programmes which should not be subject to annual verification of budgetary priorities. That also pertains to compensations and insurance policies against losses caused by droughts and soil degradation.
- An analysis of direct and indirect (resulting from membership to the European Union) commitments related to aid for the developing and transformation countries. Poland should develop structures for direct aid (from its own resources) first of all for countries in Eastern Europe, Caucasus, and Central Asia (EECCA), and offer indirect aid in the substantial form (experts, goods and services) within the European Union programmes.

4. PROPOSAL OF ACTIONS CREATING CONDITIONS FOR THE IMPROVEMENT OF THE EFFICIENCY OF COOPERATION OF THE GLOBAL CONVENTIONS IN FULFILLING THE OBLIGATIONS

4.1 Introduction

The subject matters of the three Global Conventions, i.e. UN CCD, UN FCCC and UN CBD have strong links of causes and effects. First, suitable climatic conditions must occur for the specific changes of weather to occur (e.g. hurricanes, torrential rains or prolonged droughts). The meteorological phenomena may cause flooding but they also may, due to dehydration caused by prolonged droughts, result in degradation of soil and in change of vegetation. This, in turn, will lead to the permanent changes of the ecosystems, migration of species, new mutations and invasive species harming ecosystems and hence to the change and deterioration of biodiversity.

Therefore, it is not accidental that both the UN FCCC and UN CBD were opened for signature at the same time while the UN CCD was opened only in June 1992. Then a decision was made on starting urgent work on UN CCD to make a link between the two earlier conventions.

Although UN FCCC concerns mainly the actions pertaining to the reduction of the anthropogenic greenhouse gases, it also contains regulations addressing the necessity of taking actions in order to minimise the consequences of climate change, including droughts, which is one of the two main objectives of UN CCD.

The second objective of UN CCD, i.e. the protection of soil, its regeneration and prevention against desertification (turning into steppe) relates also to protection of ecosystems that forms the basis for sustainable use and protection of biodiversity which is the objective of CBD.

The relations of these three conventions necessarily lead to the similarity of some of their objectives and tasks and to the similarity, sometimes even identity of the legal and economic instruments, institutional solutions and financing. A large part of the obligatory national reports and preventive or remedial programmes contain exactly the same elements.

4.2 Potential for strengthening of cooperation between the Global Conventions

In the course of analysing the sectional problems related to all the three Global Conventions, several possibilities have been identified of strengthening the cooperation between those conventions. The implementations of the identified possibilities could improve the realization of the obligations. Summing up, the undertaken analysis it should be concluded that such possibilities exist e.g. in the following areas:

- Cooperation between national focal points for different conventions and national secretariats of those conventions.
- Creation of a formal mechanism of coordination of the actions of the secretariats for the synergic implementation of the conventions.
- Monitoring, inventory taking and management.
- Research and systematic observations.
- Forecasting changes.
- Improving the effectiveness of the realization of conventions and reducing help needed for the realization of the individual national projects.
- Reporting.
- Cooperation between the government and the society.
- Transfer of technology.
- Policies, programmes and strategies concerning the protection of the environment and sustainable development.

The enhanced cooperation between Global Conventions and improved efficiency of the actions aimed at the realization of those conventions can be achieved by:

- Establishing and developing mutual cooperation and creating formal channels of the information transfer between the national focal points and the national secretariats of the conventions.
- Establishing formal mechanisms of coordination of the actions of the convention secretariats.
- Introducing new frameworks of cooperation and information exchange between the national secretariats and focal points in order to improve monitoring, inventory taking and data management.
- Strengthening the system for the use of data related to climate and biodiversity for better understanding of the mutual relationship between the changes of climate, extreme weather phenomena and changes in biodiversity, condition of forests,

desertification and steppification, dropping ground water table as well as adaptation to the climate change.

- Determining occurrence of regularities in the mutual relations: climatic changes – occurrence of droughts – changes in biodiversity as well determining the trends and forecasting future changes.
- Applying common ecosystem approach for achieving the assumed goals, which will result in improved effectiveness of the realization of the conventions (this may be the way of avoiding multiple financing of overlapping actions).
- Linking the quantitative reporting under the UN FCCC Convention with qualitative reporting under the UN CCD and UN CBD Conventions through finding and indicating the cause-effect relations.
- Developing education and dissemination of knowledge in order to raise of the objectives and actions of the three Global Conventions awareness in the society.
- Establishing the principles of the exchange of information on modern technologies and related training programmes and creating possibilities of transfer of such technologies aimed at realization of the objectives of the three Global Conventions.
- Including the cross-cutting issues concerning the Global Conventions in updating the policies, programmes and strategies for environmental protection and sustainable development.

It should be pointed out that a significant difficulty in cooperation between the three conventions may be posed by the different terminologies used in those agreements, different objectives of the conventions or different interpretation of the scientific information used under individual conventions.

4.3 Proposal for improvement of the structure of management of fulfilment of obligations resulting from the three Global Conventions

4.3.1 General structure of relations

The undertaken analysis of functioning of the existent structures for managing the Global Conventions in Poland shows that they need to be urgently modified in order to improve the effectiveness of implementation of the conventions.

The proposed modifications include in particular:

- Appointing National Coordinator having the rank of a minister for implementation of the Global Conventions.

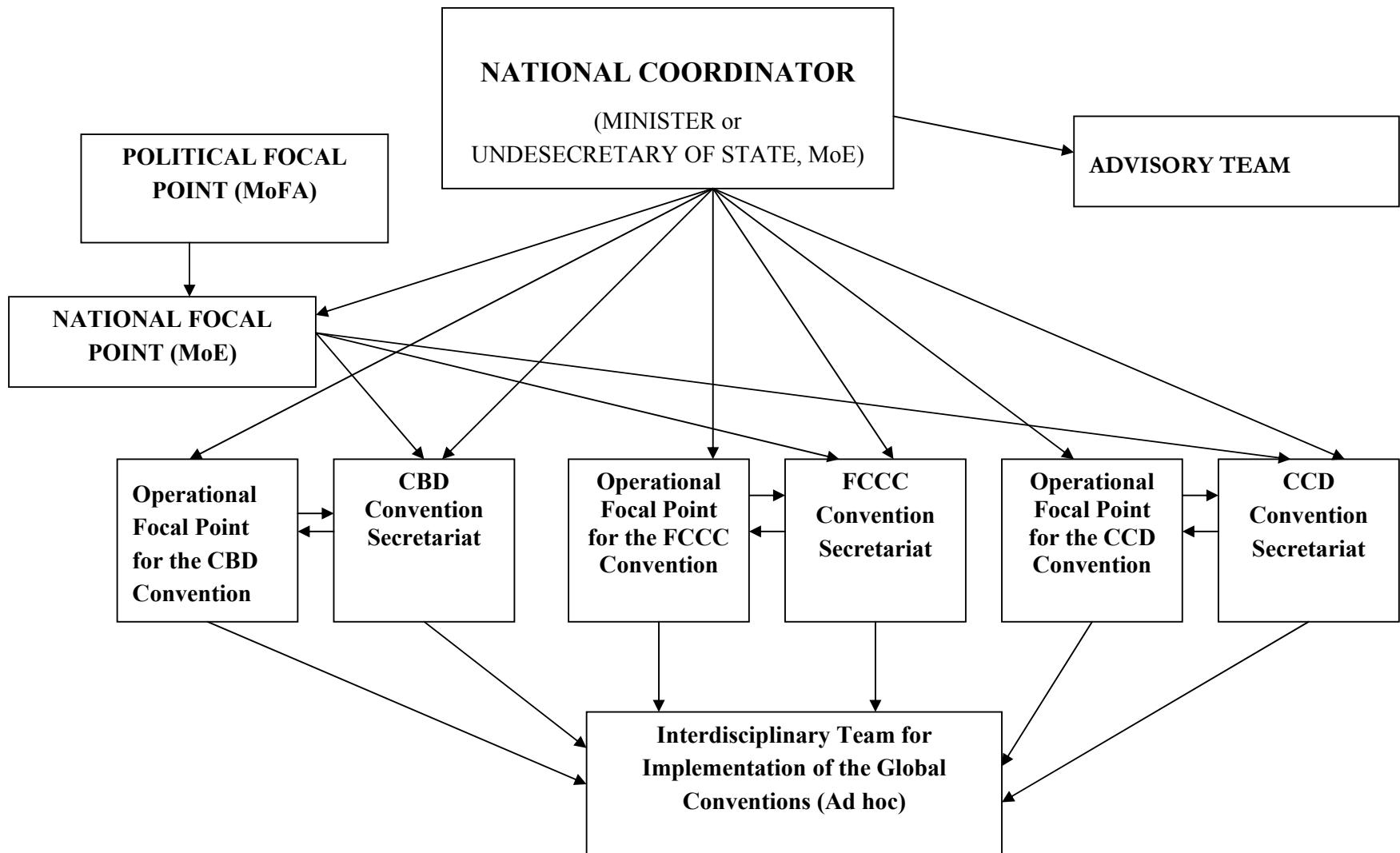
- Appointing an Advisory Team for fulfilment of the convention provisions supporting the National Coordinator.
- Properly placing the convention secretariats at the departments of the Ministry of the Environment and formulating their goals.
- Placing the operational focal points mainly within the structures of the Ministry of the Environment.
- Creating, if needed, an Interdisciplinary Team supporting the work of the Convention secretariats and operational focal points.

4.3.2 Rights and duties of the National Coordinator

The National Coordinator of the rank of a minister or undersecretary of state should be appointed by force of a decision of the President of the Council of Ministers (the Prime Minister).

- The duties of the National Coordinator should include:
 - general supervising of fulfilment of the obligations resulting from the provisions of the Global Conventions;
 - coordination of the sectoral activities, especially in order to prevent their overlap and avoid the resulting costs;
 - improving the national and international policies, strategies and direct actions devoted to realization of the main objectives and tasks derived from the provisions of the Global Conventions;
 - reviewing and passing opinions on the national, regional local and sectoral policies and development strategies and on the legal acts and regulations related to the issues covered by the objectives and goals of the conventions;
 - preparing, liaising, co-ordinating, agreeing and initially approving (before the approval of the Minister of Foreign Affairs and (if needed) of the Prime Minister) the directions of the Polish policy on functioning of the Global Conventions, presented at the fora of those Conventions, at the forum of the United Nations Commission on Sustainable Development (UN CSD), UN Environment Programme (UNEP), UN Development Programme (UNDP), UN General Assembly (UNGA) on the matters covered by those conventions;
 - preparing final versions, agreeing and approving the positions and negotiating instructions for the conferences of the parties to the conventions (COPs) and for the meetings of other bodies of the conventions;

- receiving sectoral reports and supervising preparation of joint reports for the appropriate ministers, the Council of Ministers, the Parliament and for external use (Conferences of Parties, UN CSD, UNGA, UE);
 - supervising the preparation of new legislation and the mechanisms of its implementation when those are related to implementation of the Global Conventions;
 - preparing and proposing plans of the budget for the following years as far as implementation of the Global Conventions is concerned, including the needs of the National Coordinator;
 - requesting aid for the countries affected by natural disasters or aid for Poland;
 - promotion of the issues concerning the functioning of the Global Conventions and Poland's achievements in the realization thereof in the Polish and foreign media.
- The National Coordinator should have the right to appoint its own executive team (Bureau, Secretariat) adequate to the needs, with the rank of a bureau, department or unit.
 - The National Coordinator should have the right to create, subject to the Prime Minister's approval, an Interdepartmental Advisory Team which would be representation of the interested ministries, agencies, self-governmental administration, academic and research circles and the main social groups (including the environmental NGOs).
 - The National Coordinator should call meetings of the Advisory Team at least every 2-3 weeks before the sessions of the Conferences of Parties to the three Global Conventions: UN FCCC, UN CBD, UN CCD (when the sessions of the COPs to different conventions coincide, the meetings of the Team should deal with the common problems raised at the COP sessions of those conventions).



Outline of the structure of management of the Global Convention

4.3.3. Advisory Team

The Advisory Team for implementation of the provisions of the Global Conventions affiliated with the National Coordinator should act according to the following principles:

- The Advisory Team should consist of 19 members
 - The membership to the Advisory Team should include representatives, as high-ranking as possible (empowered to make decisions or having such mandate) of the following Ministries:
 - environment – 5 members, representatives of the Department of International Co-operation, Department of Environmental Policy, Department of Environmental Protection Instruments, Department of Nature Conservation, Department of Forestry;
 - Economy and Labour;
 - Infrastructure;
 - Agriculture and Rural Development;
 - Health;
 - Science and Information Society Technologies;
- and also:
- Institute for Environmental Protection;
 - Institute for Meteorology and Water Management;
 - Institute for Forestry Research;
 - Institute of Soil Science and Plant Cultivation;
 - National Fund for Environmental Protection and Water Management;
 - State Committee for Scientific Research;
 - Polish Academy of Sciences;
 - EC Baltic Renewable Energy Centre (EC BREC)
- On its first meeting the Team should consider a possibility of including more than one representative of each agency, according to the current needs.
 - When a need arises, representatives of the Operational Contact Points of the Global Conventions should be invited to the meetings of the Advisory Team.
 - On its first meeting the Team should determine whether sectoral coordinators are to be appointed from among its members.

- The common stand determined at the Advisory Team's meetings should be reflected in the negotiating instructions and/or foreign visit instructions for the Polish representatives participating in the COP sessions and in the sessions of the convention subsidiary organs and it should be an official Polish position in the subject matters.
- The duties of the Advisory Team members will include in particular:
 - Preparing the information on the current state of affairs in the respective subject areas linked by the synergies and mutually related problems for Team meetings. A representative of the leading Department for a particular convention may be asked to participate in the meeting and to report on the current issues concerning the fulfilment of the resolutions of that convention.
 - The exchange of the above mentioned information between members of the Team during its meetings and constructive discussion oriented at proposing optimal solutions for cooperation between the conventions. The discussion should be directed, among others, at finding ways to avoid overlap of the actions taken under different conventions and at preventing a waste of effort.
- The Team should take a common stand on the issues concerning the synergies and mutual connections and pay special attention to preventing doubling of spending of public funds on overlapping actions under separate Global Conventions.

4.3.4 Funding

Funds should be provided at the appropriate level of the organisational structures, as well as the financial resources for fulfilment of the operational obligations resulting from the Global Conventions. It should be noted that:

- Financing of the administration connected with the realization of the Global Conventions should come from the state budget.
- Financing of the operational projects and programmes.

4.3.5 Reporting

The need for improved reporting should be notified to the convention fora. In the government reports prepared for different conventions, new chapters should be added concerning the issues of synergies and mutual relations between the conventions. Those chapters should be prepared according to the guidelines prepared on the forum of the Conference of Parties of the respective Global Convention.

Members to the Advisory Team should receive the relevant information and guidelines on those matters from the contact points of each convention and from the National Secretariats of those conventions.

4.3.6. Legislation

According to the document *Long-term Sustainable Development Strategy – POLAND 2025* adopted in the year 2000 by the Council of Ministers all policies, programmes and sectoral and the national strategies should relate to the Global Conventions.

4.3.7 Convention Secretariats

The Secretariats of the Global Conventions should be located at the Ministry of Environment:

- The Secretariat of the Convention on climate and of other climate-related conventions
 - in the Department of Environmental Protection Instruments as a separate Division for Climate Change.
- The Secretariat of the Convention on Biodiversity, of other conventions related to nature and on the Convention on desertification in the countries affected by severe droughts and/or desertification, especially in Africa – in the Department of Nature Conservation.

The activities of the Secretariats of the Global Conventions should concentrate on achievement of the following goals:

- Analysing the documentation prepared by the world Convention Secretariats and by the organs of those conventions and submitting opinions, propositions and recommendations to the National Coordinator.
- Analysing the documentation prepared by the organs of the European Union in the process of agreeing a common position on the functioning of the Global Conventions and submitting opinions, propositions and recommendations to the National Coordinator.
- Preparing and submitting to the National Coordinator draft studies of statistical and reporting nature including the obligatory reports prepared according to the methods, principles and schedules stated in the conventions or in the relevant decisions of the organs of the respective conventions.
- Gathering, archiving and ensuring public access of the national and international documentation on the agreements and international organisations related to the abovementioned Global Conventions.

In particular the activities of the Secretariats of individual conventions should include:

- Assessing the materials of the working groups of the conventions.
- Assessing the working materials and draft documents prepared by the institutions of the European Union at the meetings of the organs of the respective convention.
- Keeping track of the activities of the respective convention, working groups and teams.
- Participating in preparations of the position of Polish delegation taking part in international negotiations.
- Identifying the expertises that need to be prepared in order to fulfil the obligations of the Global Conventions.
- Popularising the problems of the global environmental changes and related conventions.
- Other actions ordered by the Minister of Environment related to performing the current tasks for the Global Conventions.

The Secretariats should cooperate with research and scientific institutes on research programmes and on preparing forecasts taking into account the mutual relationships between the subject areas. This cooperation should take place also through the members of the Advisory Team.

4.3.8 Interdisciplinary Thematic Team

When a need arises the Interdisciplinary Thematic Team should be formed. It would play a consultative role for the tasks related to the cross-cutting issues:

- The membership to the Team should be adjusted to the current needs resulting from the goals to be reached. The members should be distinguished by the following characteristics:
 - adopt a holistic approach to the tasks resulting from the realization of the conventions from the point of view of the global environmental management;
 - be orientated towards reaching the set goals;
 - take into account sustainable development in their approach to the realization of tasks;
 - have negotiating skills;
 - be proficient in languages of the international organisations;
 - be constantly willing to learn and broaden their knowledge;

- have interpersonal communication skills.
- The Head of the Thematic Team should be appointed by the Executive Director and the Team should be composed of the specialists in the subject matter, administrative and legal officers of the Ministry of Environment;
- In case when there is a need to achieve a goal which is also a sectoral goal, on the motion of the members of the Advisory Team representatives of the relevant Ministries should be co-opted to work with the Thematic Team,
- The sectors and sections cooperating in implementation of the Global Conventions should have sectoral coordinators as high-ranking as possible.
- The Issue Team should cooperate with the research and scientific institutes on research programmes and on preparing forecasts taking into account the mutual relations between the subject areas.

4.3.9 Principles of co-operation

The co-operation between the bodies of the proposed management structure for the Global Conventions should be based upon:

- Organising and participating in conferences recapitulating and drawing plans of future actions. The conferences should be organised once every quarter and should include representatives of the non-governmental organisations.
- Creating the paths of information exchange by introducing a principle of forwarding all current information on each convention to all units involved in fulfilling the obligations of the Global Conventions.
- Organising and participating in obligatory meetings of the Thematic Teams before the sessions of the Global Conventions, such as, among others, conferences of the parties, meetings of the advisory bodies.
- Organising and participating in meetings of the Advisory Team and of the Thematic Teams.
- Agreeing the points in the negotiating instructions.
- Working on many levels, i.e.: experts, Thematic Teams, departmental, ministerial, according to the needs and importance of the task.
- Mutual flow of information relevant to the fields of synergy and tangent points and of other information related to the Global Conventions between the Operational Focal Points.
- Consulting the subject areas and contents of the expertises prepared by the Thematic Team with the Interdepartmental Thematic Teams.

4.3.10 Operational Focal Points

- Operational Focal Points for the Global Conventions should be located as follows:
 - Operational Focal for the Climate Convention – at the Institute of Environmental Protection in the Executive Office of Climate Convention, which should be reactivated, or in another structure suitable for the emission trading system, e.g. in the form of a National Administrator of the Emission Trading System;
 - Operational Focal Point for the Convention on Biological Diversity – at the Department of Nature Conservation;
 - Operational Focal Point of the Convention to Combat Desertification – at the Department of Nature Conservation.
- The National Focal Point for all global and regional conventions and for the co-operation with the international organisations within the UN system should still be located at the Department of International Co-operation of the Ministry of Environment.
- The Political Focal Point for all global and regional conventions and for the co-operation with the international organisations within the UN system should still be located at the Ministry of Foreign Affairs, Department of the UN System and Global Issues.

The subject areas covered by the Operational Focal Points include:

- Analysing the contents of documents and obligations resulting from the Global Conventions.
- Identifying and analysing problems resulting from the obligations under the Conventions.
- Preparing proposals of solutions to the identified problems.
- Creating a database of specialists and units, which should or could be included into the work on implementation of the Global Convention provisions.
- Collecting data and information on the current state of a given environment component (international and national data, reports, publications) and establishing an appropriate information database.
- Processing data ad formulating tasks to be completed.
- Distributing processed data and information.
- Drafting new legislation.

- Participating in meetings organised prior to the Global Convention sessions, such as, among others, conferences of the parties and meetings of the advisory bodies.

4.4 Tasks recommended for fulfilment within the identified fields of synergy resulting from the mutual relations between the Global Conventions

In order to carry out an analysis of the cross-cutting issues, a selection was made on the basis of conclusions from the thematic reports of the so-called fields of synergy – the cross-cutting issues of the Global Conventions both of topical and sectoral character. Within the topical fields of synergy the following spheres were covered:

- education;
- monitoring;
- scientific research;
- participation of the general public and access to information;
- funding;
- law;

The analysed fields of synergy of sectoral character are the following:

- water management;
- agriculture;
- transport;
- spatial management;
- industry;
- forestry;
- tourism;

In order to propose actions within each field of synergy that would improve the ways of implementing the provisions of the three Global Conventions, at the same time avoiding the overlap of the tasks, the following scheme of the analysis ha been adopted:

- Determining the strategic goal for each field of synergy.
- Identifying and updating problems and barriers existing in a given sphere and requiring a solution.

- Itemising the operational goals proposing tasks that should be completed in order to achieve the set goals.

The detailed tasks recommended for fulfilment within the identified fields of synergy can be found in Appendix no 1.

ANNEX 1

**Tasks recommended for fulfilment
within the identified fields of synergy
resulting from mutual links between
the Global Conventions**

1. Field of synergy:

Participation of the general public and access to information

Strategic aim:

Implementation of solutions at the systemic, institutional and individual levels ensuring sustainable economic and social development at the local and national levels, in particular covering the following:

- Ensuring social approval for measures taken and decisions made by the public administration with respect to changes in consumption and production trends, including energy, transport, biodiversity resources, land and soil, decisions about regional and local development, investment decisions.
- Improvement in quality and effectiveness of administrative decisions within the scope mentioned above through subjecting proposals for those projects to public consultation with participation of representatives of science and local stakeholders.
- Prevention of wrong and socially disapproved decisions of the public authorities through the right to appeal against such decisions to courts.
- Preventing against blocking widely approved decisions about development through corruptive behaviour of certain NGOs through transparency of decision making processes and clear regulations controlling those processes.

Challenges:

1. Very limited information (particularly at the local level) about planned decisions, occasionally deliberate covering up information.
2. No interest of local communities in available information and pressure on the authorities to increase the amount of information and improve its quality.
3. No tradition of consulting administrative decisions with local stakeholders and no mechanisms of such consultations developed.
4. No trust of local communities in a possibility of their opinions being taken into account when decisions are being made, that is, doubting effectiveness of joint community actions.
5. Making use of the right to appeal against administrative decisions and blocking investments by unfair NGOs to swindle financial (bribes) or other compensations (eco-terrorism).
6. Low level of computer literacy among general public, particularly in rural areas and no skills necessary for making use of electronic systems of information sending and exchange.

Operational aim:

1. Building institutional and intellectual potential enabling exchange of information between public administration and the society, particularly with local stakeholders through:

Tasks:

- 1.1 Conducting constant education of the public authorities and local communities with respect to their rights and obligations in the decision making processes.
- 1.2 Conducting continuous environmental education at all the educational levels on sustainable consumption and production and sustainable development, with particular emphasis put on significance of local actions to global processes with respect to climate protection and prevention from effects of its change, biological diversity conservation and protection of soil productivity.
- 1.3 Developing assumptions and implementing projects (expert opinions) aiming at extending knowledge of impact of various forms and methods of local management, physical planning and location decisions on water and soil conditions on the global climate change and on change in biological diversity.
- 1.4 Dissemination of computer knowledge, improving access to the Internet and local networks.
- 1.5 Providing organisational and financial conditions enabling completion of the assumed tasks.
- 1.6 Developing and implementation of methods for assessment of measures taken.

Operational aim:

2. Involving respective bodies of the state and self-governmental administration as well as other agencies responsible for physical planning into activities in relation to the global environmental conventions through at an international forum:

Task

- 2.1 Successively familiarising them with decisions made by the parties to the global environmental conventions and protocols to those conventions.
- 2.2 More common inclusions of local organs of the state administration and self-governmental authorities into preparation of Poland's stances on issues discussed during the Conference of the Parties to those conventions and protocols.

Operational aim:

3. Improving effectiveness of implementation of the existing national and international law in the field of public access to information, decisive processes and courts through:

Tasks	<p>3.1 Conducting informational campaigns in the media in relation to the rights and obligations of the public authorities and society in decision making processes</p> <p>3.2 Encouraging NGOs to take positive measures (environmental education, proposals for new solutions) and limitation of their rights to negative actions (blocking decisions, only critical comments, public protests), particularly if they are unable to justify their interest in legal terms.</p> <p>3.3 Introducing the legal mechanism controlling correctness of operations of the authorities at all levels within the scope of monitoring effectiveness of social participation in the decision making process, e.g., through controls of the Supreme Chamber of Control.</p> <p>3.4 Limitation of the right to information, decision-making processes and initiation of legal actions exclusively to individuals and legal entities directly affected by respective administrative decisions, which should be legally documented.</p>
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Operational aim:	
<p>4. Enhancing the system of collecting, processing and offering information related to measures taken in physical planning that are significant to the global environmental change through:</p>	<p>4.1 Inclusion of global change issues into public databases.</p> <p>4.2 Improvement of information exchange between individual levels on location decisions and changes in land assignation as well as local and regional changes, which result from global changes.</p> <p>4.3 Development and implementation of the rules of transmitting information by organs of the state administration and self-governmental authorities to their organs and agencies incorporated into the system of environment management and the society.</p>

Operational aim:	
<p>5. Providing financial means for measures taken to counteract unfavourable global changes in the environment through:</p>	

Tasks	<p>5.1 Giving priority to financing projects and programmes related to those issues in targeted funds, among others including:</p> <ul style="list-style-type: none"> – National Fund for Environmental Protection and Water Management; – Provincial Funds for Environmental Protection and Water Management; – EcoFund Foundation – Global Environment Fund (GEF) – Programme of small grants; – Environmental Protection Bank; – Agency for Restructuring and Modernisation of Agriculture
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2. Field of Synergy

Education

Strategic aim:

Implementation of solutions at the systemic, institutional and individual levels ensuring enhancement of public knowledge of issues related to the global environmental change.

Challenges:

1. Insufficient considerations given to issues concerning global environmental change in formal education curricula at all the teaching levels.
2. Insufficient considerations given to issues concerning global environmental change in informal education – an insufficient number of effectively working environmental education programmes related to the issues mentioned above.
3. No general public interest in global environmental change and counteracting them.
4. No tradition of individual responsibility for condition of the environment, including the global change, resulting from insufficient knowledge in this field transmitted in the process of formal teaching.
5. Insufficient number of training sessions for people working in environment management.
6. Insufficient use of the media (press, radio, TV, Internet) as means of dissemination of knowledge of global environmental change in the society.
7. No major interest of the media in issues related to the global changes in the environment.
8. No appropriate financial means allocated for dissemination of issues related to the global environmental changes.

Operational aim:
1. Broader approach to the global environmental changes in formal education curricula at all the education levels through:
<p>Tasks:</p> <ul style="list-style-type: none"> 1.1 Developing appropriate curriculum proposals. 1.2 Training of teachers on introducing issues of the global environmental changes into school education. 1.3 Complementing university curricula related to environment protection with general issues related to the global environmental change. 1.4 Appropriate encouragement of teachers to employ issues related to the global environmental change during their teacher's free time within the formal courses. 1.5 Introducing appropriate stimuli and incentives for teachers to develop original syllabi including issues related to the global environmental change. 1.6 Improving the level of environmental awareness among representatives of the central and regional administration in relation to the need for introducing knowledge of the global environmental change through arranging appropriate training.

Operational aim:
2. More common popularisation of issues related to global environmental change within the framework of informal education and improving environmental awareness and individual sense of responsibility for the global environmental change.
<p>Tasks</p> <ul style="list-style-type: none"> 2.1 Encouraging NGOs to conduct projects related to environmental education involving general issues related to global environmental change at all education levels and in local communities. 2.2 Providing a possibility of participating in training on the global environmental change for interested individuals and NGOs. 2.3 Establishment of the appropriate system of financing projects on environmental education and projects oriented towards dissemination of information about the global environmental change.

Operational aim:
3. Developing intellectual potential with respect of environment management

Tasks	<p>3.1 Developing training programmes including issues related to the global environmental change for people dealing with environment management.</p> <p>3.2 Establishment of the appropriate system of arrangement of training including information about global environmental change.</p> <p>3.3 Providing appropriate financial conditions for arrangement of the above training.</p> <p>.</p>
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Operational aim:	
4. Dissemination of information on the global environmental change	<p>4.1 Encouraging NGOs to use the media as a mean for dissemination of knowledge of environment protection, including the global change.</p> <p>4.2 Organization of training session and press conferences for media representatives to arouse their interest in the above issues.</p> <p>4.3 Providing appropriate financial conditions for popularization of the above issues in the media.</p>

3. Field of synergy:

Monitoring

Strategic aim:

Implementation of solutions at the systemic, institutional and individual levels with respect to collecting, processing and providing access to information related to the global environmental change.

Challenges:

1. Dispersion and no integration of different systems of environmental change monitoring.
2. Limited extent of collecting information on the global environmental change.
3. No integrated system of collecting, processing and providing access to information related to the global environmental change.
4. Ineffective use of information obtained from environmental monitoring that satisfies the needs of environment management.

Operational aim:

1. Establishment of an integrated system of collecting, processing and disseminating information related to the global environmental change through:

Tasks:

- 1.1 Performing an analysis of the existing systems and programmes of environmental monitoring in the perspective of global environmental change.
- 1.2 Specifying the extent of data related to the global environmental change necessary for effective management.
- 1.3 Developing and implementing comprehensive solutions enabling collection of the assumed range of information.
- 1.4 Providing financial means ensuring operation of the integrated system of collecting, processing and dissemination of information.

Operational aim:

2. Improving knowledge and environmental awareness among people dealing with environment management with respect to the use of data from environmental monitoring, including those on the global environmental change through:

Tasks	<p>2.1 Establishment and implementation of the system of informing people on rules, range and potential of environmental monitoring.</p> <p>2.2 Obliging people dealing with environment management to specify the specific scope of information on the state of the environment and its change necessary for effective management, including counteracting global environmental change.</p> <p>2.3 Developing and implementing procedures for preparing information obtained from environmental monitoring, including those on global environmental change to satisfy the needs of decision makers.</p>
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Operational aim:	
Tasks	<p>3. Providing conditions for effective use of monitoring data in the process of counteracting global environmental change through:</p> <p>3.1 Developing and implementing a system of informing decision makers on global environmental change.</p> <p>3.2 Developing and implementing a system of monitoring effects of the preventive measures taken.</p>

4. Field of synergy:

Scientific research

Strategic aim:

Conducting research in the fields of air protection, surface and underground water protection, protection of land surface and vegetation, biological diversity conservation and sustainable forest management ensuring care for the environment and human health with special emphasis on attaining aims of the three Global Conventions.

The research should aim at the following:

- Better adaptation to the natural, biological soil potential, manner of agricultural or forest management, assumed production directions and intensity, and the applied methods for cultivation or breeding.
- Reduction in the scale and intensity of natural and anthropogenic soil erosion.
- An increase in the scale of restoration of utilitarian values of degraded soils.
- Following changes and variability in climate and climatic processes.
- Following changes and variability in biological diversity.

Challenges:

1. Enhancing research related to tracking changes and variability in climate and climatic processes (difficult to predict changes in the global climate and climate of Poland, manifesting themselves in short torrential precipitations and consequently floods on the one hand or long-term droughts and soil impoverishment on the other hand).
2. Enhancing research tracking changes and variability in biological diversity.
3. Enhancing the early alert system, observations and prognoses and plans of crisis management with respect to minimization of losses resulting from droughts.
4. Improvement of procedures and work conducted by the emergency management centre. The need for preparing procedures for response to emergency situations resulting from long-term droughts or sudden and short extraordinary phenomena such as, e.g., floods, forest fires.
5. Improvement of the system of environmental insurance and insurance against losses resulting from natural disasters.
6. An increase in participation and role of scientific circles through greater participation of science representatives in research in respect to the three Global Conventions.
7. An increase in the role of databases compiled so far and also completing analyses of value of the above resources and their usefulness for fulfilment of obligations resulting from the Global Conventions.

8. Small financial means (in relation to other European countries) for conducting research and observations on a regular basis.

Operational aim:	
1. Conducting scientific research oriented towards better learning and predicting relationships between climate changes and biological diversity in Poland and the state of soils and water conditions.	
Tasks	<p>1.1 Extending the scope of scientific research focused on better learning and predicting relationships occurring between changes in climate and biological diversity in Poland and the state of soils and water conditions.</p> <p>1.2 Dissemination of the results of that research.</p> <p>1.3 Giving priority to financing scientific research focused on better understanding and predicting relationships occurring between changes in climate and biological diversity in Poland and the state of soils and water conditions.</p>

Operational aim:	
2. Conducting monitoring of the following:	
Tasks	<ul style="list-style-type: none"> - variability in Poland's climate; - emission and absorption of greenhouse gases; - state of atmosphere, hydrosphere, and sea - state of biological diversity; - variability in water conditions - state of soils <p>2.1. Ensuring financing of monitoring from environmental funds, that is:</p> <ul style="list-style-type: none"> – National Fund for Environmental Protection and Water Management; – Provincial Funds for Environmental Protection and Water Management; – EcoFund Foundation; – Global Environment Fund (GEF) – Programme of Small Grants; – Bank of Environment Protection; – State Committee for Scientific Research.

Operational aim:	
3. Extend knowledge of global climate change, degradation of land surface and change in water conditions, the role of forest management in prevention against the above phenomena and changes in and threats to biological diversity through:	
Tasks	<p>3.1 Developing and implementing a system of training within that scope.</p> <p>3.2. Promotion of issues related to research on global environmental change and significance of research for solving those problems.</p> <p>3.3. An increase in safety of humans and animals in the face of extreme hydrological phenomena and hazards to health, life and property..</p>

Operational aim:	
4. Improvement of the early alert systems, both in relation to floods and droughts, and improvement of the system of environmental insurance and insurance against losses resulting from natural disasters.	
Tasks	<p>4.1 Providing financing of equipment with state-of-the-art observational instruments.</p> <p>4.2. Providing access to satellite images through EUMETSAT.</p> <p>4.3. Providing access to global and regional data through WMO and EPA.</p> <p>4.4. Improving the national network of observations and monitoring.</p> <p>4.5. Improvement of procedures and work conducted by the crisis control centre.</p> <p>4.6. Improvement of the system of environmental insurance and insurance against losses resulting from natural disasters.</p>

Operational aim:	
5. Enhancement of the system for collecting, processing and dissemination of information related to research significant to global environmental change through:	
Tasks	<p>5.1 An increase in participation and role of scientific circles in research related to the three Global Conventions as well as the system of collecting and processing of information on the research and making it available</p> <p>5.2. An increase in the role of databases compiled so far.</p> <p>5.3. Performing analyses of values of the above resources and their usefulness for fulfilment of the Convention obligations.</p>

Operational aim:	
6. Ensuring participation in national and international programmes, including: <ul style="list-style-type: none"> - Global Climate Observing System; - oceanic observing systems; - land surface observing systems, among others World Climate Programme, European Climate Change Programme, International Geosphere-Biosphere Programme, Intergovernmental Panel on Climate Change (IPCC). 	
Tasks	6.1. Providing finances for participation in domestic and international programmes.

Operational aim:	
7. Providing finances for research to prevent the adverse global environmental change through: <ul style="list-style-type: none"> 7.1 Giving priority to financing projects and programmes related to those issues in targeted funds, including, among others: <ul style="list-style-type: none"> – National Fund for Environmental Protection and Water Management; – Provincial Funds for Environmental Protection and Water Management; – EcoFund Foundation – Global Environment Fund (GEF) – Programme of Small Grants; – Bank of Environment Protection; 7.2. Improvement in effectiveness of use of national and international aid funds. 	
Tasks	

5. Field of synergy:

Financing

Strategic aim:

Improvement in effectiveness of the financing system, ensuring care for the environment and human health, including particularly financing achievement of the three Global Convention aiming at:

- ensuring climate protection;
- protection of surface and underground waters;
- protection of land surface and vegetation;
- biological diversity conservation;
- sustainable forest management.

Challenges:

1. The need for procurement of financial means from taxes, charges and fines – self-governmental authorities have been granted with the right to decisions and responsibility for their implementation, however, they have not been granted with guaranteed financial means for implementation of those decisions, and decisions made at the level of the state administration.
2. Financial mechanisms – qualitative requirements of environment protection, including climate protection, nature conservation, water management and soil conservation under the European Union legal system and the obligations resulting from ratification of multilateral environmental agreements introduced into the Polish legal system and appropriate governmental programmes have not been supported by suitable mechanisms of financing from the State budget and local budgets.
3. Insufficient level of knowledge among representatives of the governmental and self-governmental administration with respect to financing activities with respect to the global environmental change.
4. Maladaptation of the system of collecting, processing and dissemination of information on legal regulations with respect to financing to the needs resulting from environment management in relation to global environmental change.

Operational aim:

1. Maintain the system of environmental funds

Tasks:	<p>1.1 Giving priority to financing projects and programmes concerning issues covered by the three Global Conventions, including among others:</p> <ul style="list-style-type: none">– National Fund for Environmental Protection and Water Management;– Provincial Funds for Environmental Protection and Water Management;– EcoFund;– Global Environment Fund (GEF) – Programme of Small Grants;– Bank of Environment Protection; <p>1.2. Allocating financial means from local financial resources for counteracting adverse global environmental change.</p>
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Operational aim:

2. Full implementation of the provisions set out in the EU Directives in the field of the Environment as well as regulations under UN FCCC, UN CCD and CBD into the Polish legal system and providing financial means for that.

Tasks	<p>2.1 Giving priority to financing projects and programmes related to those issues in the targeted funds.</p> <p>2.2 Allocating financial means from local financial resources for counteracting adverse global environmental change.</p>
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Operational aim:

3. Extending knowledge of financing among decision makers at all levels and appropriate services preparing projects on decisions about issues of global environmental change, degradation of land surface and change in water conditions, change and threats to biological diversity and the role of financing in counteracting those phenomena through:

Tasks	<p>3.1 Introducing issues related to financing measures related to counteracting and mitigation of effects of the global environmental change at the local scale into training programmes.</p> <p>3.2. Developing and implementation of the system of training and courses for the governmental and self-governmental administration related to the above issues.</p> <p>3.3. Promotion of issues related to financing activities resulting in reduction of greenhouse gases.</p> <p>3.4. Popularization of electronic systems of information exchange.</p>
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Operational aim:	
Tasks	<p>4. Enhancing the system of collecting and processing information on financing actions important for the global environmental change and making that information available through:</p> <p>4.1 Introducing issues of the global environmental change into municipal, district and provincial databases and central cadastres of issues related to the global change.</p> <p>4.2 Integrating municipal, district, and provincial databases with other systems of information on the environment.</p> <p>4.3 Developing and introducing rules of transmitting information by organs of the state administration and self-governments to organs and agencies incorporated into the system of environment management and to the general public.</p> <p>4.4 Computerization and informatization of the self-governmental organs.</p>

Operational aim:	
Tasks	<p>5. Providing financial means for measures aiming at counteracting adverse, global environmental change through:</p>

Tasks	<p>5.1 Giving priority to financing projects and programmes related to those issues in targeted funds, including among others:</p> <ul style="list-style-type: none"> – National Fund for Environmental Protection and Water Management; – Provincial Funds for Environmental Protection and Water Management; – EcoFund Foundation; – Global Environment Fund (GEF) – Programme of Small Grants; – Bank of Environment Protection. <p>5.2 Providing financial means for activities resulting in reduction in greenhouse gas emissions, reduction in consumption of raw materials and media and increased care for the environment.</p> <p>5.3. Allocating financial means from local budgets for the above activities.</p> <p>5.4. Improving effectiveness of utilizing domestic and international aid funds.</p>
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6. Field of synergy:

Legal system

Strategic aim:

Establishment of an effective legal system with respect to protection of climate, surface and underground waters, land surface and vegetation, biological diversity conservation and sustainable forest management ensuring care for the environment and human health, including in particular implementation of the three Global Conventions.

Challenges:

1. Incomplete implementation of the provisions laid down in the European Union Directives in the field of the Environment and regulations under UN FCCC, UN CCD and CBD.
2. Not enough clear legal system with respect to environment protection (not enough precisely specified responsibilities of the organs of the public and self-governmental administration as well as a lack of appropriate units at all the management levels).
3. The need for establishment of clear structure of environment management.
4. The need for the reform in the procedure of procuring financial means from taxes, charges and fines (self-governments have been granted with the right to decision making and responsibility for decision implementation, however, they have not been granted with guaranteed financial means for implementation of their decisions and decisions made at the level of the state administration).
5. Analysis of financial mechanisms (qualitative requirements for environment protection including climate protection, nature conservation, water management and soil protection), under the legal system of the European Union and obligations resulting from the ratified multilateral environmental agreements and appropriate governmental programmes have not been supported by appropriate mechanisms of financing from the State budget or local budgets.
6. Enhancement of the legal regulations through standardization and liquidation of inconsistencies and ambiguities (e.g., Law on Soil Protection, Law on Extraordinary Environmental Hazards, Law on Nature Conservation, Law on Physical Planning).
7. Enhancement of the system of environmental insurance and insurance against losses resulting from natural disasters.
8. No satisfactory division of competence related to environmental issues among the central administration, provinces and regional water management boards and self-governmental administration.
9. Insufficient level of knowledge of the global environmental change among governmental and self-governmental administration representatives.

10. No adaptation of the system of collecting and processing information on legal regulations and making it available to the needs of environment management pertaining to the global environmental change.

Operational aim:	
1. Verification and updating of the Polish legislation, provisions of the European Union in the field of the Environment and the provisions of UN FCCC, UN CCD and CBD, and also implementation of the EU implementation.	
Tasks	<p>1.1. Improvement of the regulations providing conditions for protection of natural resources, conditions for emitting substances or energy into the environment and also ensuring its utilization in line with the requirements of sustainable development, including:</p> <p>1.2 Initiation and supervision over implementation of new legal solutions, including those following from the EU Directives.</p> <p>1.3 Adaptation of administration duties to observe the changing legal obligations under UN FCCC, UN CCD, and CBD.</p>

Operational aim:	
2.	Improvement in clarity and effectiveness of the law on environment protection.

	<p>2.1. An increase in responsibility and effective enforcement of regulations pertaining to legal entities and individuals in relation to utilization of the environment and observing respective laws.</p> <p>2.2. Enhancement of integration of the provisions laid down in the environmental policy with legal regulations pertaining to all the sectors of the national economy.</p> <p>2.3. Improvement of effectiveness of implementation of economic instruments in relation to support for the National Environmental Policy and observing regulations under UN FCCC, UN CCD, and CBD.</p> <p>2.4. Ensuring a clear structure of environment management (division of competence between the governmental administration and self-governmental authorities).</p> <p>2.5. Providing legal bases for activities resulting in reduction in greenhouse gas emissions, reduction in consumption of raw materials and media and increased care for the environment .</p> <p>2.6. Providing legal bases for effective environmental monitoring.</p> <p>2.7. Analyzing legal regulations pertaining to distribution of financial means from taxes, charges, and fines and also financial mechanisms.</p> <p>2.8. Improvement legal regulations through standardization (e.g., Law on Soil Protection, Law on Extraordinary Hazards, Law on Nature Conservation).</p> <p>2.9. Improvement of the system of environmental insurance and insurance against losses resulting from natural disasters.</p>
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Operational aim:

3. Involving relevant units of the public administration and self-governmental authorities into activities conducted at an international forum within the framework of the Global Environmental Conventions through:

Tasks	<p>2.1 Successive familiarizing them with decisions made by the parties to the global environmental conventions and protocols to those conventions.</p> <p>2.2 More common inclusions of local organs of the state administration and self-governmental authorities into preparation of Poland's stances on issues discussed during the Conference of the Parties to those conventions and protocols</p>
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Operational aim:

4. Extend knowledge of legal regulations related to the global environmental change, degradation of land surface and change in water conditions, changes and threats to biological diversity and the role of legal regulations in counteracting those phenomena among decision-

	makers at all levels, through:
Tasks	<p>4.1 Introducing issues related to legal regulations on counteracting and minimization of the effects of the global environmental change at the local scale into curricula of vocational schools and universities.</p> <p>4.2 Developing and implementing of the system of training sessions and courses for representatives of the governmental and self-governmental administration with respect to legal regulations counteracting and minimizing the effects of the global environmental change.</p> <p>4.3. Developing and implementing educational programmes at the primary-school level, attractive to children and young people and additional training courses for adults with respect to legal regulations counteracting and minimizing effects of the global environmental change.</p> <p>4.4 Popularization of electronic systems of information exchange with respect to legal regulations counteracting and minimizing the effects of the global environmental change</p>

7. Field of synergy:

Physical planning

Strategic aims:

Implementation of solutions providing sustainable local and national economic and social development at systemic, institutional and individual levels, in particular taking into account:

- Local and regional economic, social and environmental conditions and ecosystem efficiency.
- Air protection against erosion, over-drying, acidification, salinification and other agents leading to decline in productivity and soil degradation, landscape protection, conservation of the natural and cultural heritage and tradition, forests and water resources, conservation of natural (native) biological diversity.
- Reduction in emission of pollutants into the atmosphere, first of all of greenhouse gases and an increase in absorption of atmospheric carbon by vegetation cover.
- Adaptation to occurring and anticipated climate change, change in water conditions and change in biological diversity.

Challenges:

1. Low knowledge of the global environmental change and the role of physical planning and land development in mitigation of its effects at all levels of decision making and enforcing them.
2. Poor adaptation of the national systems of collecting, processing and dissemination of information to the needs of environment management (planning and decisions related to land development at a local scale in the context of global change and counteracting that change).
3. Insufficient consideration given to the tasks related to counteraction to the adverse global environmental change in budgets of the governmental and self-governmental units dealing with planning of development, physical planning, land development, water and forest management and to priorities in the targeted funds.
4. Failing to include issues related to counteracting the global environmental change into the national spatial management policy at all the levels.

Operational aim:

1. Utilizing physical planning and land and water management in activities aiming at reduction in degradation of land surface, deterioration of water conditions, counteracting global climate change and conservation of biological diversity through:

Tasks:	<p>1.1 In documents of political and strategic character, giving high priority to measures aiming at synchronization of economic development with the needs of natural resources (soil, water, forests, mineral resources, renewable resources, plant and animal species, ecosystems, landscapes) and human resources and introducing relevant amendments into legal regulations.</p> <p>1.2 Developing assumptions and initiating projects (expert studies) aiming at complementing knowledge of impact of different forms and methods of conducting land management, physical planning and location decisions on water and soil conditions, global climate change and changes in biological diversity.</p> <p>1.4 Providing appropriate legal bases making it possible to develop and implement soil protection programmes, increase soil retention, expand the area of forests and make it possible to make right location decisions under public control.</p> <p>1.5 Providing organizational and financial conditions making it possible to implement the developed solutions.</p> <p>1.6 Developing and implementing methods for assessment of effectiveness of measures taken.</p>
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Operational aim:	
Tasks	<p>2.. Involving relevant units of the public administration and self-governmental authorities into activities conducted at an international forum within the framework of the Global Environmental Conventions through:</p> <p>2.1 Successive familiarizing them with decisions made by the parties to the global environmental conventions and protocols to those conventions.</p> <p>2.2 More common inclusions of local organs of the state administration and self-governmental authorities into preparation of Poland's stances on issues discussed during the Conference of the Parties to those conventions and protocols.</p>

Operational aim:	
	<p>3. Extending knowledge of legal regulations related to global environmental change, degradation of land surface and change in water conditions, changes and threats to biological diversity and the role of physical planning in counteracting those phenomena among decision-makers at all levels, through:</p>

Tasks	<p>3.1 Introducing issues related to the role of physical planning and spatial management in counteracting and minimization of the effects of the global environmental change at the local scale into curricula of vocational schools and universities, first of all at the departments of construction, transport, town planning, architecture, agriculture, forestry, sanitary and civil engineering, atmosphere physics (there are already such syllabi there), biology, geography, geology, mining, economics, law and management</p> <p>3.2 Developing and implementing the system of postgraduate training and courses.</p> <p>3.3 Introducing appropriate provisions into relevant instructions and other additional materials.</p> <p>3.4 Promoting issues related to the global environmental change and significance of spatial management in solving those problems.</p>
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Operational aim:	
Tasks	<p>4. Enhancing the system of collecting and processing information on actions taken in spatial management important to the global environmental change and making that information available through:</p> <p>4.1 Introducing issues of the global environmental change into municipal, district and provincial databases and central cadastres of issues related to global change.</p> <p>4.2 Integrating municipal, district, and provincial databases with other systems of information on the environment.</p> <p>4.3 Improvement of information flow between individual levels of authorities making decisions on locations and changes in land use and also on local and regional changes taking place, which result from the global environmental change.</p> <p>4.4 Developing and implementing rules of transmitting information by organs of the state administration, self-governments, and other units responsible for spatial management to organs and agencies incorporated into the system of environment management and the society.</p>

Operational aim:	
	<p>5. Providing financial means for measures taken in the field of spatial management to counteract adverse global environmental change through:</p>

Tasks	<p>5.1 Giving priority to financing projects and programmes related to those issues in targeted funds, including among others::</p> <ul style="list-style-type: none"> – National Fund for Environmental Protection and Water Management; – Provincial Funds for Environmental Protection and Water Management; – EcoFund; – Global Environment Fund (GEF) – Programme of Small Grants; – Bank of Environment Protection; – Agency for Restructuring and Modernization of Agriculture. <p>5.2 Allocating financial means from the budget of State Forests for activities related to counteracting adverse global environmental change.</p>
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8. Field of synergy:

Water management

Strategic aim:

Implementation of solutions at the systemic, institutional, and individual levels providing integrated management of surface and underground water resources in catchment basins, bearing in mind economic development, water supply of appropriate quantity and quality for local communities, health care, protection of ecosystems, including wetlands, biological conservation, protection of water conditions in soils, protection against flooding and over-drying, taking into account particularly:

- Necessity for providing appropriate quantity and quality of fresh water for people and water for agriculture, breeding, food production, industrial production, power engineering, transport, tourism and recreation.
- Necessity for protection of health and public property against flooding, droughts and contamination with toxic substances and microorganisms.
- Local and regional economic, social and hydrological conditions and soil and ecosystem efficiency.
- Protection of land surface against erosion, over-drying, acidification, salinification and other agents leading to reduction of its productivity and degradation.
- Conservation of landscapes, natural and cultural heritage, traditions, forests and water resources, conservation of natural (native) biological diversity.
- Adaptation to presently occurring and anticipated climate change, change in water conditions and change in biological diversity.

Challenges:

1. Poor (in relation to other European countries) available resources of surface and underground water resources
2. Poor, light soils that do not ensure suitable soil retention and exchange between surface and ground waters, depending on the season and water table.
3. Climate change causing short torrential precipitation and consequently flooding on the one hand or long-term droughts and soil impoverishment on the other hand.
4. Hydrological drought lasting for decades, leading to considerable drop in water table.
5. High water consumption in agriculture, industry, and municipal management, first of all considerable water loss in worn-out infrastructure not modernized for years.
6. No detailed information on catchment basins.

7. Poor quality of surface waters which have been polluted for decades by industry, agriculture and municipal economy. Insufficient rate of constructing new sewage system networks and wastewater treatment plants.
8. Ongoing degradation of groundwater resources, first of all at the first water level as a result of outwashing and infiltration of pollutants from old, leaking landfill sites, outwashing of fertilizers and pesticides, as well as penetration of pollutants from leaking cesspools which are still common in rural areas.
9. The necessity for adapting Polish agriculture to requirements of the Common Agricultural Policy of the European Union and competition in the Common Market will constitute a threat to surface and underground waters.
10. Imprecise division of competence between the central administration, province governors, regional water management boards on the one hand and the self-governmental administration on the other hand.

Operational aim:	
	1. Developing and implementing the strategy for integrated management of water resources for the whole country and for individual regions and catchment basins:
Tasks:	<p>1.1 Assessment of the existing, potential and available water resources in the country, seasonal and spatial variability.</p> <p>1.2 Assessment of the demand for water resulting from national, regional, and local programmes of economic development and infrastructure.</p> <p>1.3 Implementation requirements of programmes for development of small-scale retention, expansion of the forested area, soil protection.</p> <p>1.4. Requirements resulting from the strategy for sustainable development and conservation of biological diversity, protection of wetland habitats.</p> <p>1.5 Assessment of variants on the scenario for climate change, first of all, warming and its effects on the water balance (precipitation, surface and underground water outflow, evaporation).</p> <p>1.6. Requirements of environmental safety of the country, first of all for border waters and protection of ground waters at the national borders.</p> <p>1.7. Protection of the Baltic Sea environment, coastal area and navigation safety. .</p> <p>1.8 Developing and implementing methods for assessment of effectiveness of the measures taken.</p>

Operational aim:	
2. Involving relevant units of the public administration and self-governmental authorities and other agencies responsible for water management into activities conducted at the intentional forum within the framework of the Global Environmental Conventions through	
Tasks	<p>2.1 Successive familiarizing them with decisions made by the parties to the global environmental conventions and protocols to those conventions.</p> <p>2.2 More common inclusions of local organs of the state administration and self-governmental authorities into preparation of Poland's stances on issues discussed during the Conference of the Parties to those conventions and protocols</p>

Operational aim:	
3. Extend knowledge of significance and methods for economical, sustainable and integrated management of surface and underground water management among water users and decision makers at all levels.	
Tasks	<p>3.1 Introducing issues related to integrated management of water management in counteracting and minimizing the effects of the global environmental change at the local scale into curricula of vocational schools and universities, first of all at the departments of agriculture, forestry, sanitary and civil engineering, biology, geography, geology, health prophylaxis, town planning, economics, law and management.</p> <p>3.2 Developing and implementing the system of training sessions and courses for water management and decision makers, including computer courses and Internet courses to make use of information resources of different databases on the Internet.</p> <p>3.3. Developing and implementing educational programmes at the primary-school level, attractive to children and young people and additional training courses for adults and actions promoting water-saving in the media.</p> <p>3.4 Developing and implementing good practice in households, companies, agricultural farms, recreational areas with respect to economical water use, preventing its losses and pollution.</p> <p>3.5 Popularization of electronic systems of information exchange, computerisation of households, first of all in rural areas.</p>

Operational aim:	
4. Enhancement of the system of collecting and processing information on actions taken in water management important to the global environmental change and making that information available through:	
Tasks	<p>4.1 Introducing issues of the global environmental change into municipal, district and provincial databases and central cadastres.</p> <p>4.2 Integrating municipal, district, and provincial databases with other systems of information on the environment.</p> <p>4.3 Improvement of information flow between individual levels of authorities making decisions on locations and changes in land use and also on local and regional changes taking place, which result from the global environmental change.</p> <p>4.4 Developing and implementing rules of transmitting information by organs of the state administration, self-governments, and other units responsible for water management to organs and agencies incorporated into the system of environment management and individual water users.</p> <p>4.5 Computerization and informatization, including networks, of self-governmental organs, schools, regional water management boards, water associations.</p>

Operational aim:	
5. Providing financial means for measures taken in water management to counteract adverse global environmental change through:	
Tasks	<p>5.1 Giving priority to financing projects and programmes related to those issues in the targeted funds.</p> <p>5.2 Improvement of effectiveness of utilizing domestic and international aid funds.</p> <p>5.3. Providing better conditions for public-private partnership in investments related to water management through improving profitability of investing through making prices for water extraction and wastewater discharge more real and cover all the entities with the payment system, including farmers.</p>

9. Field of synergy:

Agriculture

Strategic aim:

Implementation of solutions at the systemic, institutional, and individual levels ensuring sustainable development in the agricultural and animal breeding sectors, in particular including:

- Necessity for providing national food safety in terms of food quantity and quality and independence of import in this respect. .
- Necessity for maintaining competitiveness of Polish food products under conditions of trade liberalization on the Common Market of the European Union, in line with the second Common Agricultural Policy of the European Union.
- Local and regional economic, social, and environmental conditions and soil and ecosystem productivity.
- Protection of land surface against erosion, over-drying, acidification, salinification, and other agents leading to decline in productivity and soil degradation. .
- Conservation of landscapes, the natural and cultural heritage, traditions, forests and water resources, conservation of natural (native) biological diversity.
- Reduction in emission of pollutants into the atmosphere, first of all greenhouse gases (in that case carbon dioxide and methane) and an increase in absorption of atmospheric carbon by vegetation cover.
- Adaptation to presently occurring and anticipated climate change, change in water conditions and change in biological diversity.

Challenges:

1. Excessive fragmentation of farms, virtually making it impossible to conduct any consistent policy and implementation of any agrotechnical procedures.
2. Necessity for maintaining competitiveness in the European Common Market, particularly in the context of subsidizing of competitive production by governments (except for EU funding) that Poland cannot afford yet.
3. Relatively poor soils of low productivity, vulnerable to adverse effects of extreme meteorological and hydrological phenomena.
4. Poor general and agrotechnical education of farmers and breeders, low level of informatization of that sector and traditional reluctance to collective actions.
5. Low sanitary levels of Polish farms.
6. Social problems caused by poverty and unemployment in agricultural regions but also too demanding attitude of that social group.

Operational aim:	1. Developing a consistent agricultural policy and action plans giving consideration to the special character and tradition of the Polish rural areas, their favourable attributes (high biological diversity, unpolluted soils), new challenges of the Common market (competition) and international obligations resulting from the Global Conventions through:
Tasks:	<p>1.1 In documents of political and strategic character, giving a priority to measures aiming at synchronization of agricultural development with the available natural resources (soil, water, forests, mineral resources, renewable resources, plant and animal species, ecosystems, landscapes) and human resources and introducing relevant amendments into legal regulations.</p> <p>1.2 Developing assumptions and initiating projects (expert studies) aiming at complementing knowledge of impact of different forms and methods of farming and related decisions on water and soil conditions, on global climate change and changes in biological diversity.</p> <p>1.3 Providing appropriate legal bases making it possible to develop and implement soil protection programmes, increase soil retention, expand the area of forests and make it possible to make right location decisions under public control.</p> <p>1.4 Promotion of natural, organic agricultural production and “healthy food” both in the domestic and international markets, thus providing conditions for an increase in competitiveness of Polish agriculture at the same time not generating new hazards to the environment, climate, biological diversity and soil productivity in the long-term perspective.</p> <p>1.5 Determining areas, which are hydrologically and hydrogeologically vulnerable, designing and gradually implementing programmes for improving water conditions within such areas (land melioration, flood-protection structures, small-scale retention, afforestation).</p> <p>1.6 Development and manufacture of affordable sanitary and wastewater systems for individual farms and small villages (up to 2000 inhabitants).</p> <p>1.7 Providing organisational and financial conditions enabling implementation of the solutions developed.</p> <p>1.8 Encouraging NGOs to activities within rural areas.</p> <p>1.9 Development and implementation of the methods for assessment of effectiveness of the measures taken.</p>

Operational aim:
2. Integrating appropriate bodies of the state and self-governmental administration as well as

other agencies responsible for agriculture into activities at an international forum in relation to the global environmental conventions through:

Tasks	<p>2.1 Successive familiarizing them with decisions made by the parties to the global environmental conventions and protocols to those conventions.</p> <p>2.2 More common inclusions of local organs of the state administration and self-governmental authorities into preparation of Poland's stances on issues discussed during the Conference of the Parties to those conventions and protocols</p>
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Operational aim:

3. Extending knowledge of issues related to the global environmental change among farmers and decision makers at all levels and appropriate services preparing projects on decisions about issues of global environmental change, degradation of land surface and change in water conditions, change and threats to biological diversity and the role of agriculture in counteracting those phenomena through:

Tasks	<p>3.1 Introducing issues related to the role of agriculture and agricultural production in counteracting and minimizing the effects of the global environmental change at the local scale into curricula of vocational schools and universities, first of all at the departments of agriculture, forestry, sanitary and civil engineering, biology, geography, geology, health prophylaxis, law and management.</p> <p>3.2 Developing and implementing the system of training sessions and courses for farmers, agrotechnical instructors, and decision makers, including computer courses and Internet courses to make use of information resources of different databases on the Internet.</p> <p>3.3. Developing and implementing educational programmes at the primary-school level, attractive to children and young people and additional training courses for adults.</p> <p>3.4 Developing and implementing good farming practice designed for various soil and hydrological conditions, different level of farms and various types of agriculture and breeding.</p> <p>3.5 Popularization of electronic systems of information exchange, computerisation of farms.</p>
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Operational aim:

4. Enhancing the system of collecting and processing information on activities conducted in agriculture important for the global environmental change and making that information available through:

Tasks	<p>4.1 Introducing issues of the global environmental change into municipal, district and provincial databases and central cadastres of issues related to global change.</p> <p>4.2 Integrating municipal, district, and provincial databases with other systems of information on the environment.</p> <p>4.3 Improvement of information exchange between individual levels of location decisions and changes in land assignation as well as local and regional changes taking place, which result from global changes.</p> <p>4.4 Developing and introducing rules of transmitting information by organs of the state administration and self-governments and other agencies responsible for forest management to organs and agencies incorporated into the system of environment management and to the general public.</p> <p>4.5 Computerization and informatization, including the Internet, of self-governmental organs, rural schools and individual farms, as well as agricultural market agencies.</p>
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Operational aim:	
Tasks	<p>5. Providing financial means for measures taken in the field of agriculture and breeding to counteract adverse global environmental change through:</p> <p>5.1 Giving priority to financing projects and programmes related to those issues in the targeted funds, including among others:</p> <ul style="list-style-type: none"> – National Fund for Environmental Protection and Water Management; – Provincial Funds for Environmental Protection and Water Management; – EcoFund Foundation; – Global Environment Fund (GEF) – Programme of Small Grants; – Bank of Environment Protection; – Agency for Restructuring and Modernization of Agriculture. <p>5.2 Improving effectiveness of utilizing domestic and international aid funds by individual farmers.</p>

10. Field of synergy

Tourism

Strategic aim:

Implementation of solutions at the systemic, institutional, and individual levels ensuring sustainable development of tourism giving consideration to the issues of global environmental change.

Challenges:

1. Excessive tourism pressure on valuable areas, not ready to host tourist traffic.
2. Insufficient promotion of alternative forms of recreation which do not lead to changes in the environment or which have very small impact on the environment.
3. Predomination of the long-term stay pattern in tourism and considerable seasonal variability.
4. Unsatisfactory level of tourist infrastructure.
5. Insufficient co-operation of the central administration organs responsible for tourism development and resource management with other entities involved in tourist activities.
6. Low level of awareness of the global environmental change among tourists.
7. Insufficient knowledge of with respect to global environmental change and counteracting them among tourist operators.

Operational aim
1. Counteracting and limiting tourist impact in valuable natural areas.

Tasks	<p>1.1 Developing and implementing methods for assessment of tourist impact on the global environment.</p> <p>1.2 Preparing guidelines for areas and objects sensitive to changes in land use, including mountain and coastal areas that are to be made accessible to tourists and implementation of a programme for development of tourist infrastructure for protected areas.</p> <p>1.3 Developing new solutions with respect to tourism organisation and service and state-of-the-art tourist infrastructure making it possible to reduce tourist impact on the environment.</p> <p>1.4 Taking measures aiming at diversification of tourist traffic through promoting regions characterised by occurrence of substitutional tourist values, of lower natural value and vulnerability to degradation.</p>
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Operational aim	
Tasks	<p>2. Restructuring of the existing tourist infrastructure and developing the correct model of tourism and public tourist behaviour.</p> <p>2.1 Developing and implementing programmes supporting novel technical solutions and activities of local communities to equip tourist accommodations, tourist infrastructure and tourist locations with necessary environment protection infrastructure and supporting utilization of technologies and materials minimising adverse effects on the environment.</p> <p>2.2. Developing and implementing programmes for development of sustainable forms of rural, natural and alternative tourism at all-Poland, regional, and local levels and involving self-governmental authorities, businessmen, organs of the governmental organs responsible for maintenance and development of infrastructure, forest administration and environment protection service into implementation of those programmes.</p> <p>2.3 Performing assessment of impact of tourist traffic seasonability on environment degradation and appropriate adaptation of promotion and extension of tourist infrastructure in selected areas to the needs.</p> <p>2.4 Preparing plans of development of a "tourist product" for areas in which tourist capacity has been exceeded.</p>

Operational aim	
	3. Establishing constant co-operation between organs of the state administration responsible for development of tourism and management of the natural resources and units of local self-governments, chambers of commerce, and tourist organizations.
Tasks	<p>3.1 Developing and implementing programmes of joint activities of specialised organs of the state administration responsible for development of tourism and sound management of the natural resources and local self-governmental units, chambers of commerce, and tourist organizations.</p> <p>3.2 Establishing forms of co-operation between the above units in the form of organisation of informational and consultative meetings and publishing information, on the Internet, etc.</p>

Operational aim	
	4. Extending the tourists' knowledge of the global environmental change through improvement of different forms of educational activities oriented towards development of environment-friendly behaviour of tourists and making them aware of values and significance of the nature in recreation.
Tasks	<p>4.1 Arranging and in-house and field classes concerning the global environmental change for tourists coming to spend holidays provided by educational centres of national and landscape parks.</p> <p>4.2 Preparing tourist trails along with the educational programme aiming at drawing attention to the issues of the global environmental change.</p> <p>4.3 Preparing and dissemination of materials in the form of guides, folders, leaflets containing information related to the global environmental change.</p>

Operational aim	
	5. Improving knowledge and skills of the staff working in tourism with respect to reduction in adverse impact of tourism and recreation on the environment and use of the nature as a \tourist value.

Tasks	<p>5.1 Introducing appropriate contents into curricula at the universities teaching in the field of tourism organising and servicing..</p> <p>5.2 Development and implementation of teaching programmes for entities dealing with tourism.</p> <p>5.3 Preparing handbooks presenting methods for counteracting the global environmental change in the field of tourism.</p>
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11. Field of synergy:

Forest management

Strategic aim:

Implementation of solutions at the systemic, institutional, and individual levels ensuring sustainable development of forest management, including in particular:

- Biological diversity conservation.
- Limitation of land surface degradation and deterioration of water conditions.
- Counteracting global climate change.

Challenges:

1. Insufficient knowledge of issues related to the global environmental change and the role of forest management in limiting them among forest service staff.
2. No adaptation of the system of collecting, processing and dissemination of information to the needs related to environment management with respect to the global environmental change.
3. Giving insufficient consideration to tasks counteracting adverse global environmental change into the budget of agencies dealing with forest management and within the priorities of the targeted funds.
4. Failing to include issues related to counteracting the global environmental change into priorities of the national forest policy.
5. Insufficient consideration given to the problems of biodiversity conservation in activities of forest service.

Operational aim:	1. Making use of forest management in activities to limit degradation of land surface, deterioration of water conditions, counteracting global climate change and conservation of biological diversity.
Tasks:	<p>1.1 In documents of political and strategic character, giving priority to measures related to an increase in the role of forest in counteracting deterioration of water conditions, global climate change and changes in biological diversity and introducing relevant amendments into the legal acts..</p> <p>1.2 Developing assumptions and initiating projects (expert studies) aiming at complementing knowledge of impact of different forms and methods of conducting forest management on water and soil conditions, on global climate change and changes in biological diversity.</p> <p>1.3 Developing programmes for conversion of tree stands and forest management to limit degradation of land surface, deterioration of water conditions, to counteract global climate change and to conserve biological diversity including:</p> <ul style="list-style-type: none"> • rules of silviculture to adapt tree and bush composition so that to enhance forest retention functions, carbon absorption and oxygen production and conservation of biological conservation. • Technologies of forest management limiting erosion processes of landscape surface, contributing to appropriate water conditions and conservation of biological diversity. <p>1.4 Providing appropriate legal bases making it possible to develop and implement programmes for tree stand conversion and forest management to counteract the global environmental change.</p> <p>1.5 Providing organizational and financial conditions making it possible to implement the developed solutions.</p> <p>1.6 Developing and implementing methods for assessment of effectiveness of the measures taken. .</p>

Operational aim:	
2. Integrating State Forest Administration and other bodies responsible for forest management into activities at an international forum in relation to the global environmental conventions through:	
Tasks	<p>2.1 Successive familiarizing them with decisions made by the parties to the global environmental conventions and protocols to those conventions.</p> <p>2.2 More common involvement of local organs of the state administration and self-governmental authorities into preparation of Poland's stances on issues discussed during the Conference of the Parties to those conventions and protocols.</p>

Operational aim:	
3. Extending knowledge of issues related to global climate change, degradation of land surface and change in water conditions and the role of forest management in counteracting the above phenomena among forest service through:	
Tasks	<p>3.1 Introducing appropriate content into curricula of vocational schools and universities.</p> <p>3.2 Development and implementation of a system of training for forest service.</p> <p>3.3 Introducing appropriate provisions into guidelines for forest management.</p> <p>3.4 Preparing a methodological handbook presenting various methods for enhancement of the role of forest in counteracting the global environmental change.</p> <p>3.5 Promotions of issues related to the global environmental change and significance of forest management in solving those problems.</p>

Operational aim:	
4. Enhancing the system of collecting and processing information on activities conducted in forest management important to the global environmental change and making that information available through:	
Tasks	<p>4.1 Including the above problems into the State Forest Information System (SILP).</p> <p>4.2 Integrating SILP with other systems of information on the environment.</p> <p>4.3 Development and implementation of the rules of transmitting information by the State Forest Administration and other units responsible for forest management to organs and agencies incorporated into the system of environment management.</p>

Operational aim:
5. Providing financial means for measures taken in the field of forest management to counteract adverse global environmental change through:
<p>Tasks</p> <p>5.1 Giving priority to financing projects and programmes related to those issues in the targeted funds, including among others:</p> <ul style="list-style-type: none"> – National Fund for Environmental Protection and Water Management; – Provincial Funds for Environmental Protection and Water Management; – EcoFund Foundation; – Global Environment Fund (GEF) – Programme of Small Grants; – Bank of Environment Protection; – Agency for Restructuring and Modernization of Agriculture. <p>5.2 Allocating financial means from the budget of State Forests for activities related to counteracting adverse global environmental change.</p>

12. Field of synergy:

Industry

Strategic aim:

Implementation of solutions at the systemic, institutional, and individual levels ensuring sustainable development of industry, including in particular:

- Reduction of pollutant emission into the atmosphere including in particular greenhouse gases (covered by the Kyoto Protocol).
- Reduction in consumption of fossil fuels, energy, water and raw materials.
- Reduction in production of solid wastes and wastewater.
- Protection of land surface against erosion, overdrying, acidification, salinification, and other agents leading to reduction in soil productivity and degradation,
- Conservation of landscapes, the natural and cultural heritage, traditions, forests and water resources, conservation of natural (native) biological diversity.
- Adaptation to presently occurring and anticipated climate change, change in water conditions and change in biological diversity..

Challenges:

1. Incomplete implementation of the provisions laid down in the European Union Directives in the field of the Environment and regulations under UN FCCC, UN CCD and CBD related to industry.
2. Poor clarity and effectiveness of the law on the environment with respect to activities in individual sectors of the national economy.
3. Low sense of responsibility of legal entities and individuals for utilisation of the environment and poor effectiveness of enforcing respective legal regulation.
4. Poor consistency of sectoral industry policies with the *Climate Policy, National Environmental Policy, and Long-term strategy for sustainable development: Poland 2025*.
5. Failing to include issues related to counteracting the global environmental change into priorities of the policy in the industry sector.
6. In relation to other European countries small financial means for activities in industry ensuring enforcement of the Polish legal regulations and EU regulations..
7. Necessity for maintaining competitiveness in the European Common Market, particularly in the context of subsidizing of competitive production by governments (except for EU funding).
8. Social problems resulting from poverty and unemployment.

9. Insufficient knowledge of the global environmental change and the role in its limitation among industry representatives.
10. No adaptation of the system of collecting processing and disseminating information on issues related to the global environmental change to the needs of environment management
11. Insufficient consideration given to the tasks related to counteracting adverse global environmental change within the framework of the targeted funds.

Operational aim:	
	<p>1. Developing a consistent industrial policy and action plans giving consideration to the new regulations of the EU Directives in the field of the Environment, new challenges of the Common market (competition) and international obligations resulting from the Global Conventions through:</p>
Tasks:	<p>1.1 In documents of political and strategic character, giving priority to measures aiming at synchronization of industrial development with the available natural resources (soil, water, forests, mineral resources, renewable resources) and human resources, and introducing relevant amendments into legal regulations.</p> <p>1.2 Developing assumptions and initiating projects (expert studies) aiming at complementing knowledge of impact of industry on water and soil conditions, on global climate change and changes in biological diversity.</p> <p>1.3 Providing organizational and financial conditions making it possible to implement the developed solutions.</p> <p>1.4 Encouraging NGOs to activities to reduce emission of pollutants into the atmosphere including in particular greenhouse gases (covered with the Kyoto Protocol), reduction in consumption of fossil fuels, energy, water, and raw materials and reduction in production of solid wastes and wastewater.</p> <p>1.5 Developing and implementing methods for assessment of effectiveness of the measures taken. .</p>

Operational aim:	
	<p>2. Implementing and promoting effective and environment friendly practices and technologies in industrial activity.</p>

Tasks	<p>2.1. Implementing mechanisms of responding to new challenges in the field of environment protection emerging as a result of introducing new technologies including mechanisms of rejecting some of achievements of science and technology that might have adverse effect on the environment.</p> <p>2.2. Common implementation of the best available technologies in industry with respect to production organization, cutting-edge technologies of manufacture (including technologies allowing for use of alternate raw materials and energy sources and closing water cycles) and also management of the whole product life-cycles and natural resources and materials recovery from re-used wastes.</p> <p>2.3. Improving environmental quality of products (as defined by lower consumption of fuels, energy and water during the process of their utilization, longer durability and ease of re-use after turning into waste).</p> <p>2.4. Implementing and promoting effective and environment-friendly policies and technologies in industrial activity resulting in an increase in effectiveness of energy use and reducing energy consumption in manufacture processes.</p> <p>2.5. Supporting small and medium-sized companies, mainly in relation to implementation of innovations and improvement of effectiveness with simultaneous care for the environment through implementation of the financial policy instruments (tax exempts and relieves, credit facilities) in connection to the employment policy.</p>
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Operational aim:	
3. An increase in the share of renewable energy sources (RES) and fuels of lower carbon content (natural gas) in production of electric power.	
Tasks	<p>3.1. Introducing incentives to increase utilization of RES, including implementation of financial policy instruments (tax exempts and relieves, credit facilities) in connection to the employment policy.</p> <p>3.2. Developing and implementing effective legal regulations with respect to RES.</p> <p>3.3. Ensuring financing of undertakings aimed at an increase in utilization of energy from renewable sources.</p>

Operational aim:	
4. Imposing environment friendly behaviour on industry and maintaining the existing system of financing the environment.	

Tasks	<p>4.1. Maintaining the existing system of charges and fines for utilization of the environment.</p> <p>4.2. Implementing the system of emission trading and joint implementation projects within the framework of the Kyoto Protocol.</p> <p>4.3. Promoting environment friendly industrial behaviour.</p>
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Operational aim:	
5. Increasing the share of industry voluntary activities for environment protection.	
Tasks	<p>5.1. Actively promoting of optimisation of environmental measures costs, fostering development of the sense of joint responsibility for the environment state in industry, including:</p> <ul style="list-style-type: none"> - standardised systems of management of environment and its quality; - programmes for cleaner production; - environmental product labelling; - tradable emission allowances; - environmental insurance; - permanent forms of industry with organs of the self-governmental/ local authorities, public administration and general public; - voluntary agreements; - conducting the so called environmental marketing; - improvement environmental competitiveness of companies in the market.

Operational aim:	
6. Integrating appropriate bodies of the state and self-governmental administration as well as other agencies responsible for industry development into activities at an international forum in relation to the global environmental conventions through:	
Tasks	<p>6.1 Successively familiarizing them with decisions made by the parties to the global environmental conventions and protocols to those conventions.</p> <p>6.2 More common inclusion of local organs of the state administration and self-governmental authorities into preparation of Poland's stances on issues discussed during the Conference of the Parties to those conventions and protocols</p>

Operational aim:	
Tasks	<p>7. Extending knowledge of measures taken in industry both among decision makers at all levels and appropriate services preparing projects on decisions about issues of the global environmental change, degradation of land surface and change in water conditions, change and threats to biological diversity and the role of industry in counteracting those phenomena through:</p> <p>7.1 Introducing issues related to the role of industry in counteracting and minimizing effects of the global environmental change at the local scale into curricula of vocational schools and universities.</p> <p>7.2 Developing and implementing of the system of training sessions and courses for representatives of industry and decision makers, including computer and Internet courses, training on information resources of various databases and networks and courses in marketing behaviour.</p> <p>7.3. Promotion of issues related to the measures taken in industry and resulting in greenhouse gas reduction.</p> <p>7.5. Developing and implementing educational programmes at the primary-school level, attractive to children and young people and additional training courses for adults.</p> <p>7.6 Development and implementation of good practice into industry.</p> <p>7.7 Popularisation of electronic systems of information transmission.</p>

Operational aim:	
Tasks	<p>8. Enhancing the system of collecting and processing information on activities conducted in industry important to the global environmental change and making that information available through:</p> <p>8.1 Introducing issues of the global environmental change into municipal, district and provincial databases and central cadastres of issues related to global change.</p> <p>8.2 Integrating municipal, district, and provincial databases with other systems of information on the environment.</p> <p>8.3 Developing and introducing rules of transmitting information from organs of the state administration and self-governments and other agencies responsible for industry to organs and agencies incorporated into the system of environment management and to the general public.</p> <p>8.4 Computerization and informatization (including networks) of self-governmental organs and various industrial agencies.</p>

Operational aim:
9. Providing financial means for measures taken in the field of industry to counteract adverse global environmental change through:
<p>Tasks</p> <p>9.1 Giving priority to financing projects and programmes related to those issues in the targeted funds, including among others:</p> <ul style="list-style-type: none"> – National Fund for Environmental Protection and Water Management; – Provincial Funds for Environmental Protection and Water Management; – EcoFund Foundation; – Global Environment Fund (GEF) – Programme of Small Grants; – Bank of Environment Protection. <p>9.2 Improving effectiveness of utilizing domestic and international aid funds.</p>

13. Field of synergy: Transport

Strategic aim:

Implementation of solutions at the systemic, institutional, and individual levels ensuring sustainable development of transport, including in particular:

- Reduction in pollutant emission into the atmosphere including in particular greenhouse gases (covered by the Kyoto Protocol).
- Conservation of landscapes, the natural and cultural heritage, traditions, forests and water resources, conservation of natural (native) biological diversity.

Challenges

1. Incomplete implementation of the provisions laid down in the European Union Directives in the field of the Environment and regulations under UN FCCC, UN CCD and CBD related to transport..
2. Poor clarity and effectiveness of the law on the environment with respect to the transport sector.
3. Poor consistency of transport policy with the *Climate Policy, National Environmental Policy, and Long-term strategy for sustainable development: Poland 2025*.
4. Failing to include issues related to counteracting the global environmental change into priorities of the national transport policy.
5. In relation to other European countries small financial means for activities in transport ensuring enforcement of the Polish legal regulations and EU regulations..
6. Insufficient knowledge of the global environmental change and the role of transport in its limitation among transport representatives.
7. No adaptation of the system of collecting processing and disseminating information on issues related to the global environmental change to the needs of environment management.
8. Insufficient consideration given to the tasks related to counteracting adverse global environmental change within the framework of targeted funds.

Operational aim:

1. Developing a consistent transport policy and action plans giving consideration to the new regulations of the EU Directives in the field of the Environment, new challenges of the Common market (competition) and international obligations resulting from the Global Conventions through:

Tasks:

- 1.1 In documents of political and strategic character, giving priority to measures aiming at synchronization of transport development with the available natural resources (soil, water, forests, mineral resources, renewable resources) and human resources and introducing relevant amendments into legal regulations.
 - 1.1.1. Providing appropriate conditions for protection of the natural resources exposed to adverse effects of transport and appropriate conditions for emission of substances or energy from the transport sector into the atmosphere through:
 - reducing impact of passenger car transport by an increase in the role of public transport;
 - improving the infrastructure for pedestrians and bicyclers;
 - promoting bicycle transport;
 - construction of motorways, ring roads and fast roads;
 - restricting emission standards for combustion engines;
 - actions aiming at reduction in greenhouse gas emissions from broadly defined transport, including air transport.
- 1.2 Developing assumptions and initiating projects aiming at complementing knowledge of impact of transport on water and soil conditions, on global climate change and change in biological diversity.
- 1.3 Providing organisational and financial conditions making it possible to implement the developed solutions.
- 1.4. Including issues related to counteracting the global environmental changes into transport policy priorities.
- 1.5 Encouraging NGOs to activities to reduce emission of pollutants from transport into the atmosphere including in particular greenhouse gases.
- 1.6 Developing and implementing methods for assessment of effectiveness of the measures taken.

Operational aim:

2. Providing a possibility of using transport at the same time utilising the natural resources in a sustainable manner.

Tasks	<p>2.1.Promoting public transport.</p> <p>2.2.Promoting water transport – sea transport and inland water transport.</p> <p>2.3.Promoting changes in behaviour – activities aiming at a change in patterns of long-distance travelling to the benefit of railway travelling.</p> <p>2.4.Promoting the use of environmentally clean vehicles.</p> <p>2.5. Promoting school buses – implementation of local transport plans for schools</p>
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Operational aim:	
3.Involving appropriate bodies of the state and self-governmental administration as well as other agencies responsible for transport development into activities at an international forum in relation to the global environmental conventions through:	
Tasks	<p>2.1 Successive familiarizing them with decisions made by the parties to the global environmental conventions and protocols to those conventions.</p> <p>2.2 More common inclusions of local organs of the state administration and self-governmental authorities into preparation of Poland's stances on issues discussed during the Conference of the Parties to those conventions and protocols.</p>

Operational aim:	
4. Extending knowledge of the measures taken in transport both among decision makers at all levels and appropriate services preparing projects on decisions about issues of global environmental change, degradation of land surface and change in water conditions, change and threats to biological diversity and the role of transport in counteracting those phenomena through:	

Tasks	<p>4.1 Introducing issues related to the role of transport in counteracting and minimizing effects of the global environmental change at the local scale into curricula of vocational schools and universities.</p> <p>4.2 Developing and implementing of the system of training sessions and courses for representatives of transport and decision makers, including computer and Internet courses, training on information resources of various databases and networks and courses in marketing behaviour.</p> <p>4.3. Promotion of issues related to measures taken in industry and resulting in greenhouse gas reduction.</p> <p>4.4. Developing and implementing educational programmes at the primary-school level, attractive to children and young people and additional training courses for adults.</p> <p>4.5 Development and implementation of good practice into transport.</p> <p>4.6 Popularisation of electronic systems of information transmission.</p>
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Operational aim:	
5. Enhancing the system of collecting and processing information on activities conducted in transport important to the global environmental change and making that information available through:	
Tasks	<p>5.1 Introducing issues of the global environmental change into municipal, district and provincial databases and central cadastres of issues related to global change.</p> <p>5.2 Integrating municipal, district, and provincial databases with other systems of information on the environment.</p> <p>5.3 Developing and introducing rules of transmitting information from organs of the state administration and self-governments and other agencies responsible for transport to organs and agencies incorporated into the system of environment management and to the general public.</p> <p>5.4 Computerization and informatization (including networks) of self-governmental organs and other agencies dealing with the broadly defined transport sector.</p>

Operational aim:	
6. Providing financial means for measures taken in the field of transport to counteract adverse global environmental change through:	

Tasks	<p>6.1 Giving priority to financing projects and programmes related to those issues in the targeted funds, including among others::</p> <ul style="list-style-type: none"> – National Fund for Environmental Protection and Water Management; – Provincial Funds for Environmental Protection and Water Management; – EcoFund Foundation; – Global Environment Fund (GEF) – Programme of Small Grants; – Bank of Environment Protection. <p>6.2 Improving effectiveness of utilizing domestic and international aid funds.</p>
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ANNEX NO. 2

List of acronyms

AIJ	Activities Implemented Jointly
BOŚ	Environment Protection Bank
CALM	Circumpolar Active Layer Monitoring
CCAP	Centre for Clean Air Policy
CDM	Clean Development Mechanism (Kyoto Protocol)
CEEC	Central and Eastern European Countries
COP	Conference of Parties
DGLP	General Directorate of the State Forests
EBRD	European Bank for Reconstruction and Development
EC BREC	EC Baltic Renewable Energy Centre
EEA	European Environment Agency
EIONET	Environmental Information Organisations' NETwork
EKD	NACE (Nomenclature Générale des Activités Économiques dans les Communautés Européennes), Statistical Classification of Economic Activities
EKG ONZ	United Nations Economic Commission for Europe,
EKOFUND	EcoFund Foundation
ENRICH	European Network for Research In Global Change
EMEP	Environmental Monitoring and Evaluation Program
EUMETSAT	European Organisation for the Exploitation of Meteorological Satellites
EUROSTAT	Statistical Office of the European Communities EUROSTAT
EWG	European Economic Community
FEWE	Polish Foundation for Energy Efficiency
GCOS	Global Climate Observing System
GEF	Global Environment Facility
GIS	Geographical Information System
GUS	Central Statistical Office
GHG	Greenhouse Gases
GIOŚ	Chief Inspector for Environmental Protection
IBL	Institute for Forestry Research
JI	Joint Implementation (Kyoto Protocol)
JLG	Joint Liaison Group

ICHP	Industrial Chemistry Research Institute
IPA	International Permafrost Association
IO	Institute of Oceanology
IOŚ	Institute of Environment Protection
IMGW	Institute of Meteorology and Water Management
INC	Intergovernmental Negotiating Committee
InE	Institute for Sustainable Development
IPCC	Intergovernmental Panel on Climate Change
IPPC	Integrated Pollution Prevention and Control - (abbreviate name of the European Union Council Directive 96/61/EC of 24 September 1996)
ISPA	Infrastructural Preaccession Assistance
IUNG	Institute of Soil Science and Plant Cultivation in Puławy
KAPE	Polish National Energy Conservation Agency SA
KBN	State Committee for Scientific Research
KCIE	National Emission Centre at IOŚ
KPRU	National Plan of Allowance Allocation concerning emission trading
KPZL	National Forest Increase Programme
MGiP	Ministry of Economy and Labour
MI	Ministry of Infrastructure
MRiRW	Ministry of Agriculture and Rural Development
MSP	Ministry of the Treasury
MSWiA	Ministry of Interior and Administration
MŚ	Ministry of the Environment
MZ	Ministry of Health
NFOŚiGW	National Fund for Environmental Protection and Water Management
NCSA	National Capacity Self-Assessment
NFEP	National Foundation for Environmental Protection
NGOs	Non-governmental Organisations
NPR	National Development Plan
NZ	United Nations
OECD	Organisation for Economic Co-operation and Development

ONZ	United Nations Organization
OZE	Renewable Energy Resources
PAN	Polish Academy of Science
PEP	National Environmental Policy
PHARE	Assistance Programme of the European Communities for Central Europe (original meaning of the acronym of 1990 is Poland and Hungary Assistance for Restructure of the Economy, that became invalid in that very same year, and the acronym has instead become the logo of assistance programme of the European Communities for Central European Countries)
PIG	Polish Geological Institute
PKB	Gross National Product
PKE	Polish Ecological Club
PNEC	Association of Municipalities, Polish „Energie Cites” Network
POŚ	Law on Environment Protection
RCSS	Government Centre for Strategic Studies
RCL	Government Legislation Centre
REC	Regional Environmental Centre for Central and Eastern Europe
RP	Republic of Poland
RM	Council of Ministers
SAPARD	Special Accession Programme for Agriculture and Rural Development
SBI	UN FCCC Subsidiary Body for Implementation
SBSTA	UN FCCC Subsidiary Body for Scientific and Technological Advice
TAR	Third Assessment Report assessing climate change
UAM	Adam Mickiewicz University in Poznań
UE	European Union
UKIE	Office of the Committee for European Integration
UN	United Nations
UN CBD	United Nations Convention on Biological Diversity
UN CCD	United Nations Convention to Combat Desertification in Countries Affected by Major Droughts and/or Desertification, particularly in Africa.
UN CED	United Nations Conference on Environment and Development

UN CSD	United Nations Commission on Sustainable Development
UN CTAD	United Nations Commission on Trade and Development
UNDP	United Nations Development Programme
UN ECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCO	United Nations Economic Scientific and Culture Organisation
UN FCCC	United Nations Framework Convention on Climate Change
UN GA	United Nations General Assembly
URE	Energy Regulatory Office
USAID	US Agency for International Development
WB	World Bank
WFOŚiGW	Provincial Funds for Environmental Protection and Water Management
WHO	World Health Organisation
WIOŚ	Provincial Inspectors for Environmental Protection
WMO	World Meteorological Organisation
WPIEI	Working Party on International Environmental Issues (EU Council)
WTO	World Trade Organisation
WMO	World Meteorological Organisation
ZPE20	The assumptions for the energy policy of Poland until 2020.

Chemical compounds

CO₂	carbon dioxide
CH₄	methane
HFC	fluorohydrocarbons
N₂O	nitrogen monoxide
PFC	perfluorohydrocarbons
SF₆	Sulphur Hexafluoride