THE NATIONAL STRATEGY FOR THE CONSERVATION AND SUSTAINABLE USE OF BIODIVERSITY

INTRODUCTION

Poland is one of the countries with substantially diversified nature. The level of biodiversity in this climatic zone is among the richest ones in Europe. This is determined by the features of transitional climate with the impacts of oceanic and continental air masses, the favourable conditions of the geographical situation, in the central part of the Continent, without any natural barriers in the East and the West, the diversified geological structure, the diverse relief of the terrain and hydrographic system as well as the varied soil substrate. The natural richness of Poland is also affected by the different conditions for the economic and civilisational development, compared with the countries of Western Europe, such as the non-uniform industrialisation and urbanisation of the country, the traditional, extensive agriculture preserved over large areas as well as the wide and historically stable forests.

The total number of registered species is about 60,000, including about 16,000 plant species and about 35,000 animal species. Due to the specific situation of Poland, it abounds in the species the range limits of which occur in its territory. Such species include e.g. 30% of mammals, 16% of birds and, depending on the taxonomic group, 7%-50% of invertebrate species. In Poland's territory, there are 485 plant associations, 12% of which are frequent associations, while 22% of associations are rare and recorded only at few sites. There is also a varied share of plant associations which form the vegetal cover and vegetation mantle, with large-area associations occupying many hectares (e.g. woods, agrocenoses or meadows) representing 38% of all the associations occurring in the country. Agricultural land is characterised by a rich mosaic of habitats, resulting from the traditional forms of management. About 30% of farmland demonstrates high natural values, functioning as refuges for endangered species of flora and fauna. Due to the fragmented agriculture, the local forms of crop plants and local livestock breeds have survived until the contemporary times. As a result of the diversified land surface as well as the soil and climatic conditions, Poland is also characterised by the large differentiation of natural landscapes, while due to the preservation of the traditional forms of management, particularly in the Eastern part of the country, valuable cultural landscapes have survived.

Although to a lesser degree than in the countries of Western Europe, in Poland there are also threats for biodiversity which are typical of civilisational processes. The most important of them include: the advancing urbanisation and development of the country, the too slowly decreasing levels of the pollution of the individual elements of the environment, the unfavourable land use change, the adverse pressure on the species perceived to be conflict ones, the advancing synanthropisation of fauna and flora as well as the penetration of alien species. A potential threat of the recent years, which has not been fully explored by science, is the genetic modification of species and their release into the environment.

As an effect of the direct and indirect impacts on nature which originated in Poland's territory (as of 2001), 16 vertebrate species, including 10 bird species, 4 mammal species and 1 species of fish and reptiles each were replaced or died out, with more than 60% having vanished over the last 40 years. According to the *Polish Red Data Book of Animals* (2001), the list of dying out or endangered vertebrate species consists of 111 items. The regressive trends can be seen in the case of 1,648 of plant species, with endangered species including 29% of lichen species, 20% of liverwort and

large-fructification fungi species, 18% of moss species and 15% of vascular plant species. It is estimated that over 200 years 124 plant species have died out or been replaced. The *Polish Red Data Book of Plants* (2001), covering pteridophytes and flower plants threatened with extinction, now contains 296 taxa, i.e. about 15% of the entire domestic flora. Among them, 38 species have lost all their natural sites in Poland's territory.

The limitation of the occurring threats and the creation of the conditions which ensure the preservation of biodiversity at all the levels of its organisation require systematic actions, with the active involvement of the public as a whole. They should be carried out in a comprehensive manner and respond to all the most important needs, including those related to the international commitments which Poland has made, ensuring the effective and sustainable use of natural resources.

Such an approach is presented by the National Strategy for the Conservation and Sustainable Use of Biodiversity (hereinafter referred to as the National Strategy), along with the Action Programme. It follows up and builds on the analogous document which the Council of Ministers approved on 25 February 2003. Since that time there had been a distinct change in the circumstances of nature conservation, resulting mainly from Poland's accession to the European Union and there had also been developments in the socio-economic situation in the country. Therefore, it was not only necessary to adopt a new Action Programme for the subsequent programming period but also to appropriately revise and update the provisions of the Strategy itself.

The objectives set out in the National Strategy and the tasks contained in the Action Programme for 2007-2013 are the final result of a wide discussion with representatives of the communities which are engaged in the actions for the conservation and sustainable use of biodiversity or support them (central offices, voivodship offices, maritime offices, voivodship self-governments, scientific research centres, national and landscape parks, State Forests, regional water management authorities, target funds, environmental non-governmental organizations and others). In the course of the work, consideration was also given to the conclusions from the assessment of the implementation status of the previous version of the Strategy and the Action Programme for 2003-2006, which was carried out in 2005, and the requirements following from the provisions of conventions and agreements to which Poland is a party, other acts of international and domestic law as well as the sectoral policies, strategies and programmes which directly or indirectly relate to the issues of nature conservation.

Just as in the case with the previous document, the new version of the National Strategy is by assumption of timeless nature, whereas the Action Programme applies to an unambiguously defined implementation period.

The effective launch of the tasks adopted in the Programme, along with the efforts to achieve the objectives set out in the National Strategy, will contribute to the implementation of the so-called 2010 target, i.e. to the halting of the rate of biodiversity loss by this year and the further maintenance and enhancement of natural resources after 2010, thus supporting the development of the country and the improvement of the welfare of its society.

THE FACTORS AFFECTING THE IMPLEMENTATION OF THE NATIONAL STRATEGY

The international factors affecting the implementation of the National Strategy

The Polish nature conservation policy is determined by a number of external (international) factors and internal (domestic) ones. They include legal, economic, social and natural factors.

With regard to the provisions of the National Strategy, the international legal factors are the most important ones, since Poland is obliged to respect them and to implement the commitments arising from them.

The requirement for the conservation and sustainable use of the entire natural heritage of Poland follows directly from the Convention on Biological Diversity. By signing the document in Rio de Janeiro in June 1992 and ratifying it in 1996, Poland became a full-fledged party to it and made all the commitments under it, including the commitments adopted at the subsequent Conferences of the Parties.

Irrespective of the commitments under the Convention on Biological Diversity, Poland made the commitments under a number of other conventions and international agreements regulating the principles of the protection of selected elements of the natural environment. The most important ones of them include:

- the Convention Concerning the Protection of the World Cultural and Natural Heritage (the Paris Convention), ratified in 1976 (Official Journal of the Laws No 32, Item 190);
- the Convention on Wetlands of International Importance, especially as Waterfowl Habitat (the Ramsar Convention), ratified in 1978 (Official Journal of the Laws No 7, Item 124, as amended);
- the Convention on International Trade in Endangered Species of Wild Fauna and Flora (the Washington Convention), ratified in 1989 (Official Journal of the Laws of 1991, No 27, Item 112, as amended);
- the Convention on the Conservation of European Wildlife and Natural Habitats (the Berne Convention), ratified in 1995 (Official Journal of the Laws of 1996, No 58, Item 263, as amended.);
- the Agreement on the Conservation of Small Cetaceans in the Baltic and North Seas; ratified in 1995 (Official Journal of the Laws of 1999, No 96, Item 1108);
- the Agreement on the Conservation of Bats in Europe, ratified in 1996 (Official Journal of the Laws of 1999, No 96, Item 1112);
- the Convention on the Conservation of Migratory Species of Wild Animals (the Bonn Convention), ratified in 1996 r.(Official Journal of the Laws of 2003, No 2, Item 17);
- the Convention on the Protection of the Marine Environment of the Baltic Sea (the Helsinki Convention), ratified in 1999 (Official Journal of the Laws of 2000, No 28, Item 346);

- the Cartagena Protocol on Biosafety to the Convention on Biological Diversity, ratified in 2003 (Official Journal of the Laws of 2004, No 216, Item 2201);
- the European Landscape Convention, ratified in 2004 (Official Journal of the Laws of 2006, No 14, Item 98);
- the Framework Convention on the Protection and Sustainable Development of the Carpathians, ratified in 2006 (Official Journal of the Laws of 2007, No 96, Item 634).

Particular consideration should be given to the United Nations Framework Convention on Climate Change (the Climate Convention), which was signed along with the Convention on Biological Diversity at the Earth Summit in Rio de Janeiro in 1992 and ratified in 1994 (Official Journal of the Laws of 1996, No 53, Item 238). A common axis of the actions taken under both Conventions is the restoration of natural systems related to carbon accumulation and the strengthening of biological diversity as a factor mitigating the impacts of climate change.

The factors affecting the implementation of the National Strategy under Poland's commitments in the European Union and the Council of Europe

A separate group of guidelines and recommendations which Poland is obliged to meet consists of the commitments under the legislation of the European Union.

In accordance with the Integrated Guidelines for Growth and Jobs (COM(2005)141) under the Lisbon Strategy, the long-term success of the EU depends on its meeting a series of challenges in the scope of natural resources and the environment, which, unless they are treated sufficiently seriously, will become barriers to growth. A further delay in addressing the loss of biodiversity will cause a higher economic cost of the actions to be taken.

Another important factor affecting the implementation of the National Strategy consists of the EU Directives the provisions of which are transposed into the national law. They include e.g.:

- Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds (the Birds Directive) (OJ L 103 of 25.04.1979, p. 1; OJ, the Polish special edition, Chapter 15, Vol. 1, p. 98, as amended.);
- Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive) (OJ L 206 of 22.07.1992, p. 7; OJ, the Polish special edition, Chapter 15, Vol. 2, p. 102, as amended.);
- Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (the Nitrates Directive) (OJ L 375 of 31.12.1991, p. 1; OJ, the Polish special edition, Chapter 15, Vol. 2, p. 68, as amended.);
- Directive 2001/18/EC of the European Parliament and of the Council of 12 March 2001 on the deliberate release into the environment of genetically modified organisms (OJ L 106 of 17.04.2001, p. 1; OJ, the Polish special edition, Chapter 15, Vol. 6, p. 77, as amended);

- Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (the Water Framework Directive) (OJ L 327 of 22.12.2000, p. 1; OJ, the Polish special edition, Chapter 15, Vol. 5, p. 275, as amended.);
- Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage (OJ L 143 of 30.04.2004, p. 56; OJ, the Polish special edition, Chapter 15, Vol. 8, p. 357, as amended).

In the nearest future, it is planned to adopt three Directives concerning the EU Soil Protection Strategy, the EU Marine Strategy and the Directive on flood risk assessment and management, which will also become important instruments affecting the conservation of Poland's biodiversity.

Due to its membership in the European Union, Poland is also obliged to take into account in the actions which it takes the guidelines contained in the EU Biodiversity Strategy and its action plans, the recommendations concerning the achievement of the "2010 Target" (i.e. halting the loss of biodiversity by 2010) contained in the document entitled the "Message from Malahide", the conclusions of the EU Environmental Council relating e.g. to the issues of the conservation and wise use of biodiversity, the conclusions of the official EU papers, such as Environment 2010 – Our Future, Our Choice, the Environmental Policy Review and the guidelines contained in the Communication of the Commission of the European Communities "Halting the loss of diversity by 2010 – and beyond – Sustaining ecosystem services for human well-being".

It is important to mention other international documents, such as the European Plant Conservation Strategy (prepared by the Council of Europe and the organisation "Planta Europea"), the Strategy of the Council of Europe on Invasive Alien Species and the Pan-European Biological and Landscape Diversity Strategy (PEBLDS).

Internal factors affecting the implementation of the National Strategy

The internal factors which determine the provisions of the National Strategy include the national acts in effect and the policies and strategies which have been adopted.

The requirement for the conservation and wise use of biodiversity was included in the legal act of the highest rank, i.e. the **Constitution of the Republic of Poland** adopted in 1997 by the National Assembly. Article 5 of the Constitution provides that the Republic of Poland ensures environmental protection following the principle of sustainable development. This commitment was expanded in the **Second National Environmental Policy** adopted by the Council of Ministers on 13 June 2000 and then passed by Parliament in August 2001. This document stated that the conservation of biological and landscape diversity was important for ensuring the environmental safety of the state; therefore, it was a task of the state authorities to create favourable conditions for such conservation. The most important objectives of the actions taken in this scope were considered to be:

- the improvement of the state of the environment by removing or limiting the threats for the preservation of biological and landscape diversity,
- the preservation, restoration and enrichment of natural resources,
- the achievement of the general approval of the preservation of the entire natural and cultural heritage of Poland.

The above objectives were specified and expounded in the **National Environmental Policy, for 2003-2006, with a Perspective for 2007-2010,** adopted by Parliament in May 2003. The most important actions included those aimed at achieving the following objectives:

- the renaturalisation and improvement of the state of the most valuable, destroyed ecosystems and habitats, particularly the forest and wetland ones;
- the restitution of selected species (in justified cases);
- the expansion and improvement of the in-situ and ex-situ conservation of plants and animals threatened with extinction as well as old, traditional plant varieties and livestock breeds of importance for the conservation of biodiversity, through creating and maintaining the necessary technical conditions for such conservation and supporting research and development work in this scope;
- the development of research and inventory work to assess the state of biodiversity and to identify the threats for it;
- the maintenance of the diversified agricultural landscape with medium-sized farms, the enhancement of support for, and development of, forms of agriculture using production methods which do not disturb the natural equilibrium, primarily organic and integrated farming;
- the ensuring of the conservation and rational management of biodiversity throughout the territory of the country, including marine areas as well as other land areas which are intensively used for economic purposes and urbanised areas;
- the raising of the level of the environmental awareness of the public and local authorities, e.g. through the promotion of the issues of biodiversity in the framework of training courses and information campaigns as well as through the improvement of public communication in the scope of the understanding of the objectives and effects of biodiversity conservation;
- the promotion of the wise use of biological resources and the practices of economical and rational management so as prevent damage to natural resources in excess of the indispensable needs as well as the indication of the local benefits from the preservation of biological and landscape diversity;
- the preservation of traditional management practices in areas with natural values as an instrument for the conservation and sustainable use of biological resources, taking into account the Code of Good Agricultural Practice;

- ensuring that effective action is taken to prevent the introduction of species which may threaten the integrity of natural ecosystems and habitats or pose danger for native species;
- the further augmentation of the forest cover in the country, with consideration given to the natural and landscape factors;
- the implementation of such technologies in forest management as imitate processes and states typical of the natural dynamics of change in tree-stands and ecosystems;
- ensuring the conservation of forest gene resources;
- the implementation of the principles of the conservation and enhancement of biodiversity in forests at the genetic, species and ecosystem levels, e.g. through the introduction of native species, the enrichment of the species composition of regenerated forests and the reconstruction of monocultures.

The draft **National Environmental Policy for 2007-2010, with a Perspective for 2011-2014**, adopted by the Council of Ministers in December 2006, also indicated that the overriding, strategic goal was to ensure the environmental safety of the country (its inhabitants, natural resources and social infrastructure) and to create the basis for social and economic development. The implementation objectives of this document include:

- the strengthening of the system for managing environmental protection,
- the protection of the natural heritage and the rational use of natural resources,
- the sustainable use of materials, water and energy,
- the further improvement of the quality of the environment and environmental safety to protect the health of Poland's inhabitants,
- climate protection.

Recommendations and guidelines concerning the conservation and wise use of biodiversity are also contained in other documents of strategic nature which have been adopted by the Council of Ministers, including:

- the National Forest Policy, which provides for ensuring the sustainability of forests, along with their multi-functionality, through the expansion of national forest resources and their comprehensive protection, and the re-orientation of forest management from the previous domination of the raw-material model to the model of environmentally sound and economically balanced, multi-functional forest management;
- the National Strategy for Environmental Education through Education to Sustainable Development, which provides for actions to be taken to enhance the knowledge and awareness of the public concerning the state of biodiversity and the threats for it;
- the Strategy for the Development of the Country 2007-2015, which sets out the objectives and priorities of Poland's social and economic development, also mentioning the

development of infrastructure for environmental protection, including the conservation of nature and biodiversity;

- the National Strategic Plan for Rural Development, which sets out, on the basis of social, economic and environmental analyses, the priorities and directions of rural development in Poland in relation to the Community priorities;
- the National Cohesion Strategy 2007-2013, the Operational Programme Infrastructure and Environment, which gives priority to the restoration of the favourable status of natural habitats and species refuges in protected areas, the preservation of species threatened with extinction and the genetic diversity of plants, animals and fungi, the opening of ecological corridors, the support for the process of developing conservation plans and the enhancement of awareness concerning the protection of the environment, nature and landscape.

A very important factor which conditions the effectiveness of the implementation of the legal commitments and guidelines contained in policies, strategies and sectoral programmes is the financial factor, i.e. the capacity of the State to spend resources at a level corresponding to the needs of the conservation and sustainable use of biodiversity.

Analysis of the strengths and weaknesses as well as the opportunities and threats for the conservation and sustainable use of biodiversity

Poland has good and long traditions of nature conservation. Due to the efforts of the public administration, research centres and environmental non-governmental organisations, it was possible to set in operation a number of mechanisms supporting the conservation and preservation of biodiversity. This does not mean, however, that all the problems which the State authorities and the public should address as soon as possible have been solved.

The point of departure for formulating the objectives of the National Strategy and its elaboration in the form of the Action Programme was the analysis of the weaknesses and strengths of nature conservation in Poland as well as the existing or potential opportunities and threats (SWOT -*Strengths, Weaknesses, Opportunities and Threats*), the results of which are presented below.

Strengths

- Very high biodiversity in a large part of the country, including some forest ecosystems, non-forest and wetland ecosystems, as a result of extensive agriculture, well-conducted forest management and poorly developed infrastructure, in accordance with the concept followed in the early post-war years.
- The successive limitation of the emissions of pollutants into the environment, favourable for the preservation of biodiversity.
- The traditional approach to natural resources conservation through use.
- The long and good traditions of nature conservation in Poland.

- The establishment of a legal basis for the creation of a system of area- and species-specific conservation.
- The coverage of the majority of the areas of the country which are most valuable in terms of nature by different forms of protection.
- The relatively good recognition and valorisation of the areas which are most valuable in terms of nature and are covered by legal protection (national parks as well as part of nature reserves and landscape parks).
- The coverage of most vanishing and endangered species of fungi, plants and animals by legal protection.
- The creation of mechanisms as well as the successive development and introduction of the principles of the conservation and sustainable use of biodiversity in forest management.
- The creation of mechanisms enabling the conservation and sustainable use of biodiversity in rural areas.
- The high level of research in the scope of natural sciences, including the research on the functioning of the natural environment, threats for it and methods for its protection.
- The development of forms and methods of environmental education. The growing environmental awareness of the public.
- The activity of a significant number of non-governmental organisations for the conservation of biodiversity. Their growing significance in the decision-making processes concerning nature conservation.
- The large involvement of nature conservation services in their work.
- The functioning of a system for financing environmental protection based on target funds.

Weaknesses

- The strong degradation of the natural environment in the parts of the country exposed in the past and/or at present to greater human pressures.
- The decline observed in biodiversity, particularly in the areas which were recently used intensively for agricultural purposes.
- The inadequate exploration of the natural values of substantial parts of the country which are not covered by forms of nature protection. The particularly poor identification of the natural values in marine areas.
- Failure to cover some part of areas with high natural values by the system of protection areas. The lack of sufficient instruments for the preservation of biodiversity outside of protected areas. The lack of the legal basis for the establishment of ecological corridors. The weak conservation regime for the protected landscape areas. The lack of the legal

capacity to extend conservation to the most valuable parts of Polish marine areas. The difficulties in winning the public approval of the creation of new protected areas or the expansion of the existing ones, also including the Natura 2000 sites. The lack of a system of positive motivation for the self-governments and inhabitants of areas covered by legal protection.

- The establishment of the European Ecological Network Natura 2000 without a prior inventory of the natural resources of the country, particularly in terms of the requirements of the Birds and Habitats Directives.
- The excessively slow process of the implementation of the European Ecological Network Natura 2000. The lack of a vision of the target shape of the network and the assumptions for its functioning. The lack of conviction among legal entities and local communities (including self-governments) as to the need for establishing the Natura 2000 network.
- The inadequate surface areas of "reference sites" enabling the surveillance of natural processes unfolding in nature in areas covered by strict conservation and other non-used parts of space.
- The insufficient number of the approved management plans for protected areas.
- The insufficient resources for the development of biodiversity research and thereby for the maintenance and development of research capacity.
- The incorrect provision of knowledge concerning the state of natural resources in Poland and the overestimation of the state of the natural environment in the countries of Western Europe.
- The excessively slow growth of the environmental awareness of part of the public. The slow and insufficient process of using the knowledge gained in everyday practice. The excessively low position of the issues of nature conservation among politicians and officials.
- The unstable legal system for nature conservation. The inadequate reflection of the commitments under international law in legal acts. The insufficient pace of the drafting and implementation of the executive regulations for acts.
- The insufficient enforcement of the requirements of nature conservation in the spatial planning system.
- The insufficient integration of the issues of nature conservation into policies, strategies and sectoral programmes as well as other auxiliary materials (e.g. the codes of good practices). The lack of practical guides to the methods for the sustainable use of biodiversity (in different fields).
- The insufficient identification of selected civilisational impacts and global change on biodiversity.

- The insufficient promotion and, therefore, the inadequate interest in the use of advice and training on the part of farmers and fishermen in the scope of agri-environmetnal projects.
- The insufficient promotion and, therefore, the inadequate interest on the part of farmers in the programmes for the protection of native livestock breeds and varieties.
- The insufficient number of species covered by the programmes for the protection of species. The excessively limited scope of measures taken to implement them.
- The lack of long-term organisational, methodological and financial bases for biodiversity monitoring. The insufficient scope of nature monitoring when compared with the needs. The lack of developed and implemented mechanisms for the use of monitoring data as collected by research centres and non-governmental organizations.
- The insufficient identification of the impact of the harvesting from the wild of fungi, plants and animals on the state of their local populations. The lack of adequate control of the places and magnitude of the harvesting.
- The insufficient dissemination of handbooks to the conservation of natural habitats and species protected pursuant to the Habitats and Birds Directives. The lack of recommendations for the conservation of part of habitats.
- The excessively slow progress in the expansion of generally accessible Internet-based databases on biodiversity.
- The implementation of land amelioration projects, the regulation of watercourses and other hydro-engineering projects (within the framework of national and regional operational programmes) which are not favourable for the preservation of biodiversity.
- The lack of adequate legal regulations concerning nature conservation and safeguarding the functioning of ecological corridors. The insufficient dissemination of the principles which have been developed for the designation, restoration and protection of ecological corridors.
- The too general provisions of part of the nature conservation programmes for forest districts (also in the scope of recommendations), which are not supported, either, by sufficient inventories of the state of biodiversity and the threats for it. The insufficient confrontation of nature conservation and the economic activities planned in the area of a forest district.
- The poor natural exploration of the areas designated for afforestation and, therefore, the occurrence of the risk that valuable natural habitats and the habitats of species may be destroyed. The lack of voivodship programmes for the augmentation of forest cover, developed on the basis of well-identified natural and socio-economic factors.
- The insufficient financial resources compared with the needs and tasks for the functioning of nature conservation services and the insufficient number of full-time jobs.

- The lack of generally approved and used methods for the assessment and valuation of biodiversity. The lack of a separate entity (agency) in charge of the management of nature conservation at nationwide level.
- The formal and legal obstacles preventing the access of nature conservation services to extra-budget funds, including those of the European Union.
- The inadequately effective enforcement of the provisions of the law.
- The insufficient consideration of the needs of the conservation of biodiversity in private forests.

Opportunities

- The treatment of natural values as a factor contributing to development in a number of economic and spatial strategies.
- The high priority of the issues of nature conservation in European Union policies. The implementation of EU instruments supporting the conservation and sustainable use of biodiversity. The consideration of the issues related to the conservation of agricultural biodiversity in the sectoral policies of the European Union, particularly in agricultural policy.
- Significant financial resources of the European Union for the implementation of the tasks related to the conservation and sustainable use of biodiversity.
- The development of organic farming.
- The development of infrastructure on the basis of the functioning of the natural environment in a spatial system conditioned by the Natura 2000 network.
- The favourable trends in international tourism oriented on the sustainable use of natural values.
- The development of international cooperation in research to assess the state and threats as well as the conservation and the principles of the sustainable use of biodiversity.
- The development of international cooperation to create new instruments for the preservation of biodiversity and to improve the existing ones.

Threats

- An increase in the adverse impacts on nature under the conditions of the growing intensification of agriculture and the development of transport infrastructure, including in particular the road infrastructure.
- The development of infrastructure following concepts which do not take into account the assumptions of the Natura 2000 network.

- The risk of significant depletion of the biodiversity of the agricultural landscape under the impact of changes unfolding in agriculture.
- The intensification of commercial-scale agriculture and the pressure for the introduction of genetically modified organisms in the field plant and animal production.
- The risk of forest privatisation.
- The increased competition on the international market in seeking the financial resources for the implementation of tasks related to the conservation and sustainable use of biodiversity.
- The growing tourist pressure on areas with high natural values.
- The plans envisaging that nature conservation services should be subordinated to Voivodship self-governments.
- The growing pressure for the conversion of farmland and forestland into construction land, particularly in areas with high natural and landscape values.
- The development of new sports in areas with high natural values, particularly the socalled extreme sports.
- The change in the consumption patterns of the public into ones which are not favourable for the dissemination of native agricultural and forest crops.
- The general consensus of politicians and the administration as to the secondary role of nature conservation in the context of the economic development of the country, particularly in relation to the development of infrastructure.
- The vision of the economic development of the country based on the implementation of large infrastructural projects which were planned a long time ago and do not always fit the present needs of Poland and, at the same time, pose potential threats for the natural resources of the country.
- The environmental impact assessments which are not always conducted in a reliable manner and do not fully take into account the needs of biodiversity.

STRATEGY

Biodiversity as the subject of the National Strategy

Biodiversity is a relatively new concept, which appeared in official documents along with the **Convention on Biological Diversity** (Official Journal of the Laws of 2002, No 184, Item 1532), promulgated and adopted in the course of the international Conference **Environment and Development** (UNICED), known as the **Earth Summit**, which took place in 1992 in Rio de Janeiro. The term "conservation and sustainable use of biodiversity" relates to other generally known and used concepts, such as "nature conservation" and "sustainable development".

The Convention defines the concept of biodiversity in the following way: "*biological diversity means variability among living organisms from all sources, including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are party: this includes diversity within species, between species and of ecosystems*".

On the basis, too, of other definitions used in the literature (which more broadly treat the higherthan-species level by including landscape diversity in it), it is assumed that **biological diversity** means diversity within species (the richness of the gene pool) of all the living populations, between species (diversity of species) and higher-than-species diversity (of ecosystems and landscapes).

At the genetic level, the greatest consideration is given to the preservation of the gene pool of the species used for economic purposes, in the light of their significance for food and agriculture. This applies primarily to the diversity between the species of crop plants, trees and shrubs as well as livestock generated by breeders.

At the species level, a number of species groups requiring special attention can be distinguished. They include e.g. the species which are used for economic purposes (e.g. curative plants, edible mushrooms and edible snails), the species which are particularly valuable and/or covered by legal protection, including vanishing and endangered species, as well as the species which are characteristic of the individual stages of succession.

At the higher-than-species level, consideration is given to the diversity of ecosystems and their complexes which determine the diversity of natural landscapes. The protection of the disappearing mosaic of forest, meadow and field ecosystems as well as those associated with settlements is not only significant ecologically, but also serves to preserve the cultural heritage.

The diversity of genes, species and habitats is of fundamental significance for the evolution and sustainability of the life-sustaining systems in the biosphere. The depletion of biodiversity can be seen in the loss of habitats, the dying out of species and the decreased gene differentiation in populations.

In the light of the Convention, the conservation of biodiversity and the balanced and sustainable use of its elements are terms which are strictly interlinked and mutually complementary. Therefore, the historical grounds for nature conservation, mostly of philosophical, moral and aesthetic nature, have been complemented by a more utilitarian approach – biodiversity must be conserved in order to allow its use it in a sustainable manner now and in the future. What is most important is that such an approach assumes the **need to preserve nature as a whole**, i.e. both rich and diversified as well as poor ecosystems, which are at the different stages of succession, as well as those elements that have been underestimated to date or deliberately destroyed. Furthermore, it is important not to limit oneself to strict conservation, but – through exploring the laws which govern nature – also to shape it in a conscious manner, preventing, at the same time, the potential threats for it. Indeed, the Convention expanded the concept of "nature conservation" from the strict conservation of its chosen, most valuable elements to the protection of all the elements of nature and ecosystems, including those that are utilised.

This requires comprehensive conservation measures *in situ* (i.e. at the place of the natural occurrence of a given element) and *ex situ* (i.e. outside its natural environment, in the man-made collections, zoological gardens, botanical gardens, gene banks etc.). The measures *in situ* require both strict (passive) and active protection as well as the management of the use of ecosystems in a manner which does not destroy their structure or the biodiversity connected with the ecosystems.

The directions of the conservation of biodiversity are broader than those in the traditionally conceived nature conservation and should be referred to the area of the entire country rather than only to the areas covered by legal protection which represent, in fact, a small section of area. It is also important to indicate the methods for the preservation or restoration of biodiversity in areas used and developed by man, including the areas which have already been substantially degraded.

In accordance with the provisions of the Convention, all the natural assets should be conserved. However, given the substantial costs which must be incurred for the conservation of biodiversity, particularly when active forms of conservation are applied, the limited financial resources make it necessary to separate species groups and ecosystems with high conservation priority. Therefore, particular emphasis should be placed on those elements that are rare or threatened in different ways with extinction or permanent transformation.

In distinguishing these priority elements, consideration should be given to the biological premises (e.g. the key species for the particular stages of succession and landscape complexes), utilitarian ones (the species which are important because of their uses) or ethical and cultural ones (the species which the public perceives to be so-called flag species, e.g. in the case of our country – European bison and white stork, which the society regards as a special national good). The priority objects of conservation measures should be identified on a different scale: at local, regional, national and international levels. It is necessary to conduct a valorisation of the country in terms of the resources of its biodiversity.

In accordance with the concept of sustainable development, the conservation of biodiversity is a necessary condition for the further economic development of the country, while the actions in this scope must be integrated into socio-economic policies. In this context, the need to **develop** and implement the principles of the sustainable use of natural resources becomes particularly important, while the basic way of preserving natural resources should be their rational use. It is necessary to support organic farming, along with a total ban on the introduction of genetically modified plants, to support the development of infrastructure conditioned by the requirements of the Natura 2000 network as well as to develop the methods for the assessment and valuation of natural resources, while supporting the measures which make the business sector involved in the work for biodiversity.

The entities participating in the development and implementation of the National Strategy

The draft Strategy was developed at the Ministry of the Environment, with the participation of a team of experts. In 2006, the Minister of the Environment appointed the Steering Committee to amend the Strategy and to develop a new action programme, consisting of representatives of central and Voivodship offices, self-governments, organisations and institutions involved in activities for the conservation and sustainable use of biodiversity. The comments and opinions of the Committee were taken into account at the successive stages of the work on the draft. The draft was subjected to the process of required approvals and public consultations. In the process of improving the documents, the submitted comments and opinions were analysed and used. The draft document was adopted by the Joint Committee of the Government and Self-Governments and approved by a resolution of the Council of Ministers in 2007.

The Strategy is primarily addressed to the government administration at different levels (including the units subordinated to them) and self-government authorities which indirectly manage natural resources in Poland or deal with sectors which may have significant effects on their condition.

In accordance with the legal regulations in effect, the main task to inspire, implement and coordinate projects to conserve biodiversity and combat threats for it, i.e. also to coordinate the implementation of the National Strategy, rests on the **Minister competent for the environment**, responsible for the fields of: nature conservation, forestry and environmental protection (the Ministry of the Environment).

In the light of the existing division of tasks and competence, the units responsible for implementing the individual projects under the provisions of the National Strategy also include:

- the Minister competent for water management (the Ministry of the Environment) the protection and rational use of water resources;
- the Minister competent for agriculture (the Ministry of Agriculture and Rural Development) the protection of the gene pool of crop plants, livestock and farmland of significance for the preservation of biodiversity;
- the Minister competent for culture and the protection of national heritage (the Ministry of Culture and National Heritage) the protection of the values of cultural landscapes;
- the Minister competent for construction, spatial planning and housing (the Ministry of Construction) spatial development;
- the Minister competent for maritime economy (the Ministry of Maritime Economy) the protection of the marine environment in the scope of preventing the pollution of the sea by ships and responding to oil spillages;
- the Minister competent for fisheries (the Ministry of Maritime Economy) the management of fish stocks;

- the Minister competent for transport (the Ministry of Transport) the limitation of the adverse impact of transport infrastructure (railways and roads other than those within the competence of self-governments) and air transport;
- the Minister competent for labour (the Ministry of Labour and Social Policy) the development of the conditions for employment in entities carrying out their activities in accordance with the principles of sustainable development;
- **the Minister competent for the economy** (the Ministry of Economy) the limitation of the impact of energy generation on biodiversity; the development of sustainable tourism;
- the Minister competent for regional development (the Ministry of Regional Development) the development of regional policy in accordance with the principles of sustainable development;
- the Minister competent for education and upbringing (the Ministry of National Education) the dissemination of ecological issues in curricula;
- the Minister competent for higher education and the Minister competent for science (the Ministry of Science and Higher Education) – the pursuit of scientific policy, including the policy on research in natural sciences and the development of natural science faculties at higher education institutions;
- the Minister competent for national defence (the Ministry of National Defence) the conservation of biodiversity on military sites;
- the Minister competent for justice (the Ministry of Justice) the development of legislation on the criminal sanctions for the violation of regulations on the conservation of biodiversity;
- the Minister competent for internal affairs (the Ministry of Internal Affairs and Administration) responding to environmental emergencies, fire protection and responding to the effects of natural disasters in areas of significance for the conservation of biodiversity, the operations of the Police in the scope of the enforcement of the law on the conservation of biodiversity; the management of the conservation of biodiversity;
- the Minister competent for foreign affairs (the Ministry of Foreign Affairs) the development of international cooperation for the conservation of biodiversity;.
- the Minister competent for the budget and the Minister competent for public finance (the Ministry of Finance) – the allocation of the resources for the implementation of tasks related to the conservation of biodiversity in the State budget;
- the Minister competent for tourism (the Ministry of Sports and Tourism) the development of areas with natural values for tourism purposes;
- the Minister competent for physical culture and sports (the Ministry of Sports and Tourism) the plying of sports in areas with high natural values;

in addition:

- **Voivodes** (Voivodship Offices) the conservation of biodiversity at regional level, with the assistance from Voivodship Nature Conservators;
- **Directors of Maritime Offices** (Maritime Offices) the conservation of biodiversity in the Polish marine areas;
- Voivodship Marshals (Marshal's Offices) the implementation of regional policy in accordance with the principles of sustainable development;
- the self-government authorities at county and local levels the implementation of local policy in accordance with the principles of sustainable development.

Among the participants in the process of implementation of the National Strategy, it is scientific research centres that have a special role to play, as they create the methodological basis for developing effective instruments for the conservation of biodiversity and provide the information necessary for making the optimum decisions on the implementation-related issues. An important role is played by the entities authorised by the Minister of Agriculture to coordinate the protection of genetic resources: the Institute of Animal Husbandry – the State Research Institute, designed to coordinate the actions in the scope of the protection of the genetic resources of particular livestock species, and the National Centre for Plant Genetic Resources within the Institute for Plant Growing and Acclimation, designed to coordinate the National Programme for the Protection of the Genetic Resources of Useful Plants. Environmental non-governmental organisations are also important partners of the public administration in its actions for the conservation of biodiversity. In order to effectively implement the strategy and to preserve biodiversity it is necessary to involve all the public and to educate it, starting from the elementary identification or native species of animals, plants and fungi in their natural environment.

In addition to the entities mentioned above, the effective implementation of the policy of nature conservation in Poland and the implementation of tasks related to the conservation and sustainable use of biodiversity would require the operation of a separate government unit for nature conservation. This unit would manage in a comprehensive manner the natural resources of the country, at the same time, providing professional scientific and technical advice to government and self-government units which take decisions on sustainable socio-economic development and the optimum utilisation of these resources.

The determined activities of the entities participating in the implementation of the National Strategy, irrespective of the role which they play in this process, should be enhanced, with consideration given to the following principles:

<u>The principle of consolidation</u>, which consists of the maximum integration of actions for the conservation of biodiversity, both within the particular Ministries, in inter-ministerial linkages and at the level of the national environmental and spatial policies, as well as within the sphere of scientific research, education, legal, economic and control activities, and in the scope international cooperation. This principle is to contribute to the creation of a consistent and comprehensive system for the conservation and rational use of biodiversity, which should consist of adequately prepared services subordinated to the state administration, non-governmental organisations, research and education centres etc. <u>The principle of regionalisation</u>, which indicates the need for developing regional strategies and programmes for the conservation of biodiversity under the National Strategy and for the designation of authorities responsible for their coordination and implementation.

<u>The principle of internationalisation</u>, which assumes the need to respect international conventions, agreements and positions as well as the Directives and Regulations on environmental protection and biodiversity.

The principle of public participation, which indicates the need for creating mechanisms to encourage local communities to participate in programmes for the conservation of biodiversity, while at the same time ensuring them the right to use its resources in a sustainable manner (as a public good), to trigger local initiatives (e.g. establishing private/public protected areas) and to build local ties as well as to more widely participate in decision-making processes. This principle also provides for the stronger involvement of non-governmental organisations in actions for the conservation of biodiversity.

Vision

One of the strategic documents of the past years entitled "A Long-term Strategy for Sustained and Sustainable Development - Poland 2025" stated that the state of the environment and its resources (in addition to society and the economy) was one of the three most important factors which would determine the conditions and possibilities for the further development of Poland in the 21st century. This document also provided that one of the most important tasks was "*to ensure the environmental safety of the country, to improve the quality of life of the public by ensuring a good state of the natural environment throughout the country and to guarantee that the Polish natural and cultural heritage will be passed to the next generations in a condition enabling them to implement their aspirations, too* …". A comprehensive target vision of the state of the country, which should be achieved as a result of the implementation of the most desirable development scenario, contains a number of provisions concerning the particular elements of the environment and the mechanisms for limiting adverse human impacts. With regard to the field of nature, this vision is contained in the following statements:

"Spatial management should serve to ensure the correct relations between human needs and nature conservation. The surface area and number of protected areas established by the authorities at different levels will be enhanced, while the European ecological network Natura 2000 will be the basis for a system of these areas. The principles of nature conservation and the sustainable use of biological resources, including those outside protected areas, should be absolutely complied with."

"Forest areas will remain an important element of the national ecological network. Forests should be managed in a manner which ensures a systematic increase in resources and the enhancement of the biodiversity of forest complexes, inter alia, due to the reintroduction of the vanishing species of flora and fauna. The water-protecting, climate-forming and environment-forming functions of forests will be developed."

"Protective measures, the modernisation of the economy, the stimulation and shaping of consumption patterns as well as the full consideration of environmental losses in the economic calculus will lead to (...) to the rationalisation of the use of water, space and biological resources."

"Poland will be an active member of the European Union in the field of actions for the environment and will diligently fulfil its international commitments in this field."

In summing up and specifying the target vision of the country described above in a perspective of 2025, the present National Strategy adopts the following vision of Poland with regard to the field of nature:

The entire territory of Poland, including the Polish sea areas, will be characterised by a good state of the natural environment, enabling the preservation of the full riches of the biodiversity of Polish nature as well as the sustainability and equilibrium of natural processes – the areas with the highest natural values will be covered by efficient legal protection and linked by a system of functioning ecological corridors. At the same time, legal, organisational and economic mechanisms will be created to ensure the preservation of biodiversity and its rational use. For a significant part of the territory of the country, local natural values may be one of the basic "drivers" of socio-economic development; when coupled with the strategic development of the areas of human life, this will contribute to improving the quality of life of its inhabitants. Society will be characterised by greater sensitivity in relation to nature and environmental awareness, which will also be manifested in the determined activities of nongovernmental organisations.

The successful implementation of the National Strategy, i.e. the achievement of the assumed vision, will to a large extent depend on the following factors:

- the raising of the environmental awareness of the public, including the authorities of power, concerning the need to preserve all the natural riches for the present and future generations, as heritage and an all-national good, along with the education of the entire society in how to recognize the basic native species of fauna and flora in their living environment;
- the implementation of sustainable development policy in Poland, of which the National Strategy is one of the major elements;
- the continuous efforts to successively improve the state of all the elements of the natural environment (atmosphere, hydrosphere, lithosphere, pedosphere), as a result of the actions taken and the enforcement of the law in effect;
- the creation and improvement of the legal, financial and organisational conditions for the implementation of the objectives set out in the National Strategy;
- the mobilisation of financial resources corresponding to the tasks related to the conservation and sustainable development of biodiversity;

- the substantive and organisational strengthening of nature conservation services at both national, regional and local levels;
- Poland's active participation in international actions and programmes for the conservation and sustainable development of biodiversity, particularly in cooperation with the neighbouring countries and the European Union.

The supreme goal of the National Strategy

The whole of the actions undertaken in all the spheres of human activity (economic, scientific-research, legal and educational ones) should serve to achieve the supreme goal, i.e.:

The preservation of the riches of biodiversity at local, national and global levels and ensuring the possibilities for the development of all the levels of its organisation (within species, between species and at the higher-than-species level), while taking into account the needs of Poland's socio-economic development and the need to ensure the appropriate conditions of life and development for its society.

The actions which serve to preserve biodiversity must cover all nature, irrespective of the form of its use (areas covered by protection and areas used for economic purposes) as well as the degree of its transformation or damage. The use of biodiversity that is indispensable for the further socio-economic development should take place in a manner which is sustainable and ensures for the future generations equally good access to natural resources as today.

Strategic goals

In order to fulfil the supreme goal, it is necessary to achieve eight strategic goals, which are equivalent in terms of their significance:

- I) The identification and monitoring of the state of biodiversity as well as the existing and potential threats.
- II) The effective elimination or limitation of emerging threats for biodiversity.
- III) The preservation and/or enhancement and restoration of the lost elements of biodiversity.
- IV) The full integration of actions for the conservation of biodiversity into the actions in these sectors of the economy which affect such biodiversity as well as those of the public administration and society (including non-governmental organisations), while keeping the correct proportions between the maintenance of a natural equilibrium and the socio-economic development of the country.
- V) The enhancement of knowledge as well as the shaping of attitudes and activity of the public for the conservation and sustainable use of biodiversity.

- VI) The improvement of mechanisms and instruments for the conservation and sustainable use of biodiversity.
- VII) The expansion of international cooperation at regional and global levels for the conservation and sustainable use of biodiversity resources.
- VIII) The use of biodiversity in a sustainable manner, ensuring the fair and equitable sharing of the costs and benefits related to its preservation, also including the costs of failure to take developmental actions in order to protect natural resources.

The above goals will be implemented by using appropriate legal, organisational, economic and financial mechanisms which drive the preservation and rational use of the resources of biodiversity. It is assumed that the consistent and long-term implementation of the strategic goals will make it possible in particular to:

- carry out a complete inventory of the state of biodiversity, covering both wild nature and the nature which is used by man;
- create an efficiently operating nature monitoring system to provide information on the functioning of the natural environment;
- provide reliable and current information, enabling the pursuit of an effective policy of the conservation and use of biodiversity, the rational development of scientific research and the tackling of emerging threats;
- preserve and strengthen the existing biodiversity at the levels within and between species as well as at the higher-than-species level, including:
 - the preservation of full genetic variability of the populations of wild fungi, plants and animals in their natural habitats;
 - o the preservation of all the populations of native species able to develop continuously;
 - o the preservation of the genetic resources of plants and animals used by man, including primarily the varieties of crop plants and livestock breeds;
 - the preservation of all the ecosystems and natural landscapes which are important and characteristic for Poland's natural environment, taking into account of the principle of representativeness for each natural region;
- preserve Poland's areas which are most valuable in terms of natural values in an undisturbed state;
- restore the most valuable genetic resources and species as well as to rebuild or transform the most damaged ecosystems; inter alia, through the reconstruction of artificial tree-stands, particularly coniferous ones;
- shape the desirable biodiversity in areas which are now strongly depleted under the impacts of man and different degrading factors, inter alia, in urbanised areas;

- maintain the genetic resources of wild plants, animals threatened with extinction and those that are important for scientific research and breeding under the conditions of *ex-situ* collections and gene banks;
- develop scientific research and analyses integrating the different aspects of biodiversity;
- ensure the wide access of stakeholders to current information on the significance, status, threats as well as the principles of the conservation and use of biodiversity;
- create attitudes, beliefs and value systems which contribute to the preservation of biodiversity;
- achieve a high quality of landscapes throughout the Polish territory and its "saturation" with elements of living nature;
- fully take into account the requirements of nature conservation and the principles of its sustainable use in all the sectoral policies and programmes;
- minimise the adverse impacts of economic activities on the state of biodiversity;
- improve the quality of life in areas with high natural values as a result of the sustainable use of biodiversity, through providing them with priority access to different sources of financing;
- fully use the effects of international cooperation underway for the conservation and sustainable use of biodiversity.

Operational objectives

The achievement of the strategic goals requires the implementation of a number of objectives of operational nature; among these, the following ones are of particular significance for the effective conservation and rational use of biodiversity:

SECTOR OF THE ENVIRONMENT

The field of nature and landscape protection

- 1. The complementation and dissemination of knowledge concerning the distribution and resources of the elements of biodiversity.
- 2. The restoration and maintenance of ecological corridors (forest/river-related and others), ensuring a gene exchange among local populations.
- 3. *In-situ* and *ex-situ* protection of vanishing, endangered and key species of plants, fungi and animals, with consideration given to their regional variability.
- 4. The rationalisation of the principles of the harvesting of wild plants, fungi and animals for economic purposes.
- 5. The prevention of the penetration and dispersal of alien species and native species from nonnative populations, particularly those that pose the greatest threats for the native resources of biodiversity.

- 6. The improvement of the principles of handling genetically modified organisms and the control of their possible impact on the environment and biodiversity.
- 7. The improvement of the principles of handling conflict species and the species which meet with a negative response of the public.
- 8. The prevention of international and domestic trade in species threatened with extinction.
- 9. The expansion and strengthening of the national system of protected areas, including the implementation of the European Ecological Network Natura 2000.
- 10. *In-situ* protection of valuable and endangered natural habitats and ecosystems, particularly wetland, mountain and marine ecosystems.
- 11. The improvement of the state of the most valuable, damaged ecosystems, including river valleys, wetlands and forestland.
- 12. The preservation of green areas as well as roadside and midfield clusters of trees and shrubs.
- 13. In-situ protection of valuable natural and semi-natural landscapes.

The field of forestry

- 14. The improvement and implementation of the principles of silviculture, protection and management of forests in consideration of the needs of the conservation and sustainable use of biodiversity, including the tasks and commitments under conventions, agreements and other acts of international law.
- 15. The establishment of cohesive forest complexes, particularly within the boundaries of ecological corridors and in watershed areas.
- 16. The expansion of the scope of restauration of degraded areas through afforestation.

The field of mineral extraction

- 17. The development of the conditions for minimising the effects of mineral extraction on biodiversity.
- The field of environmental protection
- 18. The development of the conditions for minimising the pollution of waters, air and soil which adversely affect the state of biodiversity.

The field of promotion and education

- 19. The intensification of activities to enhance the knowledge and awareness of the public in the field of the conservation and sustainable use of biodiversity.
- 20. The saturation of information streams with contents concerning the conservation and sustainable use of biodiversity.
- 21. The improvement of a generally accessible system of information on biodiversity.
- 22. The strengthening of public involvement in actions for the conservation and sustainable use of biodiversity.

The field of nature monitoring

23. The provision of decision-makers and society with updated and reliable information on the state of biodiversity, change in it and threats for it.

The field of the management of the conservation of biodiversity

- 24. The institutional strengthening of the system for the management of nature conservation.
- 25. The improvement of the law on the conservation and sustainable use of biodiversity, in particular in terms of its compliance with the legislation of the European Union and other acts of international law (conventions and agreements).
- 26. The improvement of the ways of exchanging information among the individual administration authorities as well as research centres and non-governmental organisations, as instruments to support the management of the conservation and sustainable use of biodiversity.
- 27. The development of international cooperation in the scope of the conservation and sustainable use of biodiversity, including for the conservation and joint management of transboundary areas with natural values and the populations of rare and protected species occurring on both sides of the border as well as the restoration of a transboundary network of ecological corridors.
- 28. The development of inter-sectoral cooperation for the conservation and sustainable use of biodiversity.
- 29. The provision of the adequate level of financing for actions on the conservation and sustainable use of biodiversity corresponding to the needs.
- 30. The provision of effective mechanisms enabling wider access to financial resources dedicated to the objectives of the conservation and sustainable use of biodiversity.
- 31. The conferment of a high rank to the issues of the conservation and sustainable use of biodiversity in the procedures of environmental impact assessments.
- 32. The alignment of legal regulations and the provisions of sectoral policies, strategies and programmes in order to ensure the consistence of approaches to the conservation and sustainable use of biodiversity.
- 33. The monitoring of the course of the work to implement the tasks contained in the action programme.
- 34. The identification of the ways and means of the implementation of the National Strategy in a successive programming period.
- 35. The intensification of the actions taken by the government and self-government administrations for the conservation and sustainable use of biodiversity.
- 36. The enhancement of the personal, institutional and technical capacity of the public administration active in the field of nature conservation.

SECTOR OF WATER MANAGEMENT

- 37. The strengthening of actions to achieve and maintain a good status of waters as well as aquatic and water-dependent ecosystems, including the maintenance wherever it is possible of the natural or semi-natural character of rivers and their valleys.
- 38. The restoration of the ecological continuity of rivers.

SECTORS OF AGRICULTURE AND RURAL DEVELOPMENT

- 39. The intensification of actions to implement the ways of farming contributing to the conservation and sustainable use of biodiversity.
- 40. The implementation of the ecosystem approach in farming.
- 41. The development of the favourable conditions for the restoration of ecological corridors and the enlargement of the areas of tree and shrub clusters in farmland.
- 42. The intensification of actions to minimise environmental pollution, particularly the pollutants which affect eutrophication and acidification of terrestrial and aquatic ecosystems.
- 43. The development of the favourable conditions for the transfer of farmland for nature conservation purposes.
- 44. The supporting of actions to preserve ex-situ genetic resources for food and agriculture.
- 45. The intensification of actions for *in-situ* conservation of biodiversity, particularly the genetic resources of local crop plant varieties and native livestock breeds.
- 46. The ensuring of the economic viability of the growing and breeding of traditional, native crop plant varieties and livestock breeds.
- 47. The intensification of actions to raise the awareness and knowledge of farmers concerning the conservation and sustainable use of biodiversity.

SECTOR OF CONSTRUCTION, SPATIAL PLANNING AND HOUSING

- 48. The integration of the principles of the conservation and sustainable use of biodiversity into the spatial planning procedures.
- 49. The enhancement of the significance of biological and landscape diversity in the process of spatial management.
- 50. The improvement of the substantial and technical instruments to support the process of spatial planning in the form of updated and exhaustive spatial databases on the biodiversity of individual areas.

SECTOR OF TOURISM

51. The development of the conditions for, and the promotion of, the development of sustainable tourism as a form of the sustainable use of areas with natural values.

SECTORS OF UPBRINGING AND EDUCATION AND HIGHER EDUCATION

- 52. The integration of the issues of the conservation and sustainable use of biodiversity into the programming frameworks and curricula developed for all levels of education, including the ability of identification of 200 common species of fauna, flora and fungi in their living environment.
- 53. The preparation of qualified teachers, relevant teaching programmes and aids for the effective education in the field of the conservation and sustainable use of biodiversity.
- 54. The education within the higher education courses of highly qualified staff in the field of nature conservation, in accordance with the demand on the labour market.

SECTOR OF SCIENCE

- 55. The enhancement and dissemination of scientific knowledge of the state of biodiversity and the threats for it as well as the effectiveness of the protective actions taken.
- 56. The supporting of the scientific activity to work out methods for the assessment of the state of biodiversity and the threats for it as well as instruments serving to protect it.

SECTOR OF TRANSPORT

57. The development of the favourable conditions for minimising the adverse impacts of the existing and planned transport networks on the elements of biodiversity, including the openness of ecological corridors.

SECTORS OF MARITIME ECONOMY AND FISHERIES

- 58. The development of the conditions for the conservation and sustainable use of biodiversity of the marine and the coastal areas.
- 59. The implementation of actions in the field of the conservation of the ecosystems of marine and inland waters.
- 60. The improvement and implementation of the principles of the management of inland and maritime fisheries, taking into account the needs of the conservation and sustainable use of biodiversity.
- 61. The intensification of actions to raise the awareness of fishermen, fish producers and anglers in the scope of the conservation and sustainable use of biodiversity.
- 62. The implementation of the ecosystem approach in fisheries and aquaculture.
- 63. The prevention of the excessive exploitation of marine species and the destruction of habitats in order to ensure the sustainability of these species.

SECTOR OF ECONOMY

- 64. The intensification of actions to develop and implement production technologies contributing to the conservation of biodiversity through minimising environmental pollution, including the pollutants which affect the eutrophication and acidification of terrestrial and aquatic ecosystems.
- 65. The involvement of the business sector in the actions for the conservation and sustainable use of biodiversity.

SECTOR OF NATIONAL DEFENCE

- 66. The identification of the state of biodiversity and the threats for it in the areas used by the Armed Forces.
- 67. The development of the conditions enabling the conservation and sustainable use of biodiversity in the areas used by the Armed Forces.

SECTORS OF CULTURE AND NATIONAL HERITAGE

- 68. The conservation of cultural landscapes with natural values.
- 69. The development of the conditions for the preservation of valuable phenomena of regional and local culture related to the maintenance of traditional forms of management enabling the sustainable use of biodiversity and the education of children and youth in the scope of these issues.
- 70. The strengthening of the actions to maintain cultural diversity as an instrument which affects the conservation and sustainable use of biodiversity.

SECTOR OF LABOUR

71. The creation of the conditions for the development of "green" jobs which provide employment in projects which serve to ensure the conservation and sustainable use of biodiversity.

SECTOR OF INTERNAL AFFAIRS

72. The intensification of the actions taken by the Police services to enforce the provisions of the law on the conservation and sustainable use of biodiversity.

SECTOR OF JUSTICE

73. The launch of actions to introduce more stringent criminal sanctions for the violation of the provisions of the law on conservation and sustainable use of biodiversity as well as to execute them in an immediate and unlimited manner.

SECTORS OF BUDGET AND PUBLIC FINANCE

74. The provision of the adequate level of financing for actions on the conservation and sustainable use of biodiversity corresponding to the needs.

75. The enhancement of the effectiveness of the actions taken by the customs services in the enforcement of the provisions of the law on the conservation and sustainable use of biodiversity.

SECTOR OF FOREIGN AFFAIRS

- 76. The promotion at the international level of the values of the national biodiversity and the achievements for its conservation and sustainable use.
- 77. The launch of international actions for the conservation and sustainable use of biodiversity and the participation in them.

Instruments for the implementation of the National Strategy

The achievements of the objectives set out in the National Strategy will require the broad use of all the currently available implementation instruments as well the creation, as far as necessary, of new implementation instruments. They include:

- legal instruments;
- market-based instruments, such as economic instruments (charges, subsidies, the creation of markets etc.), fiscal instruments (environmental taxes and tax reliefs) and voluntary agreements between administration authorities and economic entities;
- horizontal supporting instruments, such as scientific research, environmental education and information, sectoral and spatial planning;
- financial supporting instruments, such as Structural Funds, the expansion of the Financial Instrument for the Environment (LIFE), the special programmes to support small and medium-sized enterprises, the programmes to support the development of renewable energy sources and energy efficiency, international financial institutions (e.g. the World Bank), the funds of international organizations etc.

In the scope of legislation, the effectiveness of the actions taken will, to a large extent, depend on the systematic improvement of all the legal acts which refer directly and indirectly to the issues of the conservation and sustainable use of biodiversity. This applies, in particular, to the following Acts (and the Regulations issued pursuant to them):

- the Act of 16 April 2004 on Nature Conservation (Official Journal of the Laws, No 92, Item 880, as amended);
- the Act of 18 July 2001 on Water Law (Official Journal of the Laws of 2005, No 239, Item 2019, as amended);
- the Act of 27 April 2001 on Environmental Protection Law (Official Journal of the Laws of 2006, No 129, Item 902, as amended);
- the Act of 22 June 2001 on Genetically Modified Organisms (Official Journal of the Laws of 2007, No 36, Item 233);

- the Act of 18 December 2003 on Plant Protection (Official Journal of the Laws of 2004, No 11, Item 94, as amended);
- the Act of 21 August 1997 on Animal Protection (Official Journal of the Laws of 2003, No 106, Item 1002, as amended);
- the Act of 3 February 1995 on the Protection of Farmland and Forestland (Official Journal of the Laws of 2004, No 121, Item 1266, as amended);
- the Act of 28 September 1991 on Forests (Official Journal of the Laws of 2005, No 45, Item 435, as amended);
- the Act of 13 October 1995 on Hunting Law (Official Journal of the Laws of 2005, No 127, Item 1066, as amended);
- the Act of 18 April 1985 on Inland Fisheries (Official Journal of the Laws of 1999, No 66, Item 750, as amended);
- the Act of 19 February 2004 on Fisheries (Official Journal of the Laws, No 62, Item 574, as amended);
- the Act of 21 March 1991 on the Sea Areas of the Republic of Poland and the Maritime Administration (Official Journal of the Laws of 2003, No 153, Item 1502, as amended);
- the Act of 27 March of 2003 on Spatial Planning and Development (Official Journal of the Laws, No 80, Item 717, as amended);
- the Act of 28 July 2005 on Health Resort-Based Treatment, Health Resorts, Areas of Health Resort-Specific Protection and Health Resort Communities (Official Journal of the Laws, No 167, Item 1399, as amended).

The financing of projects for the conservation and sustainable use of biodiversity is a particularly important instrument which conditions the effective implementation of the National Strategy and the Action Programme. For many years the National Fund for Environmental Protection and Water Management, the Voivodship Funds for Environmental Protection and Water Management, the Foundation EcoFund and others have played and will play a very important role in this process. The priorities for cofinancing from the resources of the National Fund for Environmental Protection and Water Management should be adjusted to the provisions of the National Strategy. Moreover, significant financial opportunities are related to Poland's membership in the European Union, which provides access to a number of Funds from which part of resources are allocated to projects and programmes related to nature conservation. They include, inter alia:

- the European Regional Development Fund;
- the European Social Fund;
- the European Agricultural Guidance and Guarantee Fund (which will cease to operate in 2008);

- the European Fisheries Fund;
- the European Agricultural Fund for Rural Development.

In the nearest years, Poland will also be able to use the new programmes launched within the framework of the Financial Mechanism of the European Economic Area and the Norwegian Financial Mechanism. The "Financial Instrument for the Environment LIFE+" has also an important role to play, particularly in the financing of projects in the scope of the conservation of biodiversity.

There is no doubt that the enhancement of the rank of the National Strategy and the adoption of the Action Programme as a long-term programme in the meaning of the Act on Public Finance would serve well the implementation of the objectives set out in the Strategy and, primarily, the tasks laid down in the action programmes for the successive programming periods. Under such an assumption, it would become a superior document, pursuant to which the provisions on nature conservation of the Sectoral Operational Programmes (e.g. Infrastructure and Environment) and Regional Operational Programmes should be developed, when the existing ones are updated or new ones are drawn up for the successive programming periods.

The system for the evaluation and coordination of the National Strategy

The effectiveness of the implementation of the provisions of the National Strategy for the conservation and sustainable use of biodiversity and the Action Programme for 2007-2013 will be subjected to periodical assessments and cyclical meetings with the participation of the stakeholders taking part in its implementation.

A systematic and objective assessment of the assumptions adopted, the process of implementation and the successively gained effects should provide reliable and useful information, supporting both decision-making processes with regard to the directions of actions to be adopted and the cooperation among all the partners involved in its implementation.

The assessments of the course of the implementation of the National Strategy should be prepared on the basis of the systematic monitoring of the actions taken and refer to the following implementation stages:

- after the start of the implementation, in order to indicate the threats arising from failure to take action or a delay in implementation;
- in the course of the implementation, in order to enable possible changes, additions and adjustments;
- after the end of the implementation, in order to sum up the results achieved.

At the same time, the course of process of evaluation of the National Strategy and the Action Programme should be carried out in the following order:

- the preparation of the evaluation report;
- the formulation of conclusions;
- the implementation of recommendations;

• the indication of the ways of using the conclusions to improve the quality of the actions taken.

The supervision over the implementation of the National Strategy should be entrusted to the Steering Committee, appointed by the Minister of the Environment and consisting of the representatives of all stakeholders indicated in the Action Programme as responsible for the implementation of individual tasks and the representatives of financing institutions, research centres and non-governmental organisations.