

UNITED NATIONS DEVELOPMENT PROGRAMME
Ministry of Environment

Project “National Biodiversity Planning to Support the Implementation of the CBD 2011-2020 Strategic Plan in the Republic of Moldova”

**FIFTH NATIONAL REPORT
ON BIOLOGICAL DIVERSITY**

Chişinău, 2013

Information concerning the provenance of the present Report:

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Brief information on the process of elaboration of the present report, including data on the interested subjects, who participated in its development and about the materials that served as a basis in preparing the report

The fifth national report on biodiversity conservation was elaborated based on the available information after the current evaluation of the first four national reports, the Biodiversity Conservation National Strategy and Action Plan and the project of the new variant of the Biodiversity Conservation National Strategy and Action Plan until 2020.

Thanks to all the databases on the activities aimed at biodiversity conservation (political, legislative and institutional aspects, basic research, monitoring, activities of governmental and non-governmental organizations, goals and objectives of the Ministry of Environment) the information presented in this National Report reflects the actual state of the process of implementation of the Convention on Biological Diversity and of the Biodiversity Conservation National Strategy in the Republic of Moldova.

In process of elaboration the Fifth National Report, contacts were established and it was cooperated with various governmental and non-governmental organizations, scientists from academic and sectoral institutions, with the specialists of the Natural Resources and Biodiversity Division of the Ministry of Environment.

At the elaboration of the Report and the Strategy, were examined international, regional and national strategic and political documents that served as guidelines for elaborating BNSAP. For this purpose have been examined: strategic documents adopted at the Rio Summit on Environment and Development from 1992 and Rio+20 from June 2012, the European Union Sustainable Development Strategy from 2010, the Forest Principles Declaration, the Notifications and Resolutions of the Convention on Biological Diversity (CBD), the United Nations Framework Convention on Climate Change, the Kyoto Protocol and other international treaties on biological diversity, to which the Republic of Moldova is a party. At the same time, the provisions of other documents of global importance, such as the international study "The Economics of Ecosystems and Biodiversity" – TEEB, the international report "Living Planet Report" from 2010 were examined.

Part 1. Data on biodiversity status, trends and threats, involvement of factions for the wellbeing of people

Q1. Why is biodiversity important for the Republic of Moldova?

The positive role of biodiversity in the protection of the environment of the Republic of Moldova is undeniable, because the territory of the country is periodically affected by severe droughts, scorching heats and frosts, considerable soil erosion, landslides. Biodiversity contributes to human and economic development, especially - forestry, agriculture (especially pollinating insects), pisciculture, hunting, pharmaceuticals, tourism, etc.

Biodiversity is also important as a recreational factor, for human health improvement as well as an element which helps to improve the education and awareness of population.

The development of society is dependent on the presence and use of biological resources. Biodiversity ensures the functional stability of ecosystems, which are at the basis of the sustainable socio-economic development of the Republic of Moldova. The functions of ecological systems, by their effectiveness, can serve as models for modelling agrophytocenoses that can ensure sufficient organic products for existence. These resources are not infinite, and their demand and consumption are growing permanently.

The world's biodiversity loss, which has been occurring with an astonishing speed in the recent decades, is also intensified by the impact of the climate change.

The Republic of Moldova, situated at the crossing of three bio-geographical zones, plays an important role in biodiversity conservation in this region.

Conservation of biodiversity is a common vital responsibility of the Government, private sector, civil society and of the population as a whole.

The Republic of Moldova, along with other states, committed itself to ensure, until 2015, a sustainable environment for its citizens by obliging itself to elaborate and implement activities that can guarantee the realization of the international desiderata of the Convention on Biological Diversity (CBD) at national and regional level.

There is a close relationship between biodiversity loss, poverty and development. United Nations Development Programme points out that the changes concerning the availability and quality of biodiversity and ecosystem services lead directly to poverty and low standard of living. At the same time, the negative socio-economic evolutions in the Republic of Moldova continue to threaten the biodiversity and the ecological state in general. Biodiversity loss undermines the achievements in the development and affects progress in achieving the Millennium Development Goals, inclusively in Moldova, where a significant part of the population still lives in rural areas and the everyday life of these people depends directly or indirectly on the ecosystem products and services.

For the Republic of Moldova, the biodiversity is important because:

- It ensures the population with food products
- Provides active ingredients for the production of medicinal preparations and biologically active substances.
- Provides the genetic resources for the improvement of plant varieties and animal breeds with high productivity, resistance to diseases and pests, unfavorable abiotic factors (cold, heat, salinity, etc.).
- Participates in the regeneration of the environmental components - soil, water and air.
- Allows the use of natural ecosystems as recreational areas for the population.
- Ensures the ecosystems' stability by its ability to adapt to changing environmental conditions.

The proper management and administration of the sectors of the national economy and the recognition of the fact that they depend on biodiversity and ecosystem services are crucial for the permanent guarantee of benefits for people and opportunities for poverty reduction and economic development.

The biodiversity conservation interests cannot be limited to the state borders, being approached in an international context in which the European Union has taken a leading role for the conservation of wildlife and natural habitats of interest for society.

Biodiversity is also important for the country because the poor population is the most exposed to risks related to biodiversity loss since it is directly dependent on ecosystem goods and services.

Conservation of ecosystems is an ethical duty and a practical necessity, both for our generation and for future generations.

The forest and agricultural ecosystems can serve as an example of the contribution of biodiversity to the well-being of the population.

According to the **Report on the State of the Forest Fund of the Republic of Moldova for 2006-2010**, a considerable number of people find services in forestry activities: exploitation and harvesting of timber, industries on wood processing, furniture, cellulose and paper.

The low afforestation degree of the territory of the Republic of Moldova is insufficient for the economic, social needs and the maintenance of a constant ecological balance.

In the slope regions, the reduction of the forest vegetation caused land degradation through erosion and landslides associated with other perturbing factors.

In the plains, the consequences of the insufficiency of forests are felt during the frequent and prolonged droughts, with negative effects on the agricultural production and on the general environmental and life conditions.

It is necessary to increase the areas with forest vegetation in order to rehabilitate the areas affected by erosion and landslides, to ensure ecological stability, to reduce the impacts of droughts and scorching heats, floods, to create the ecological network etc.

In order to extend and create areas with forest vegetation and to create the ecological network, documents and policies have been elaborated, the main of which are: the National Programme for the Creation of the National Ecological Network for 2011-2018, the National Plan on Extending of Forest Vegetation Areas for 2013- 2018.

The objectives of the National Plan are important for biodiversity conservation. The expansion of the areas with forest vegetation will have a positive impact on:

- 1) ensuring ecological balance on the territory of the Republic of Moldova;
- 2) enriching biodiversity and ensuring a sustainable use of natural resources;
- 3) rehabilitation of degraded lands;
- 4) restoring the protection strips of rivers and water basins;
- 5) restoring the protection strips of agricultural lands;
- 6) diminishing the effect of climate changes;
- 7) increasing the productivity of agricultural lands adjacent to the national ecological network;
- 8) increasing the soil fertility;
- 9) ensuring a more effective coordination between the central and local public administration in the domains of environmental protection and forestry;
- 10) developing the National Ecological Network and the Pan-European Ecological Network;
- 11) reducing the fragmentation of natural

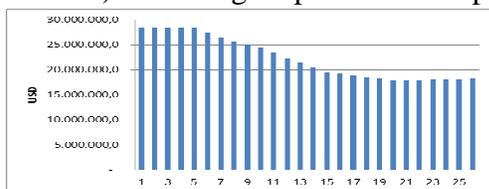


Fig... The value of ecosystem services in the forestry sector of the Republic of Moldova, 2011.

ecosystems;

12) increasing the level of environmental security of the country by preventing and combating desertification, natural disasters and reducing the negative effects of climate changes.

Other effective measures for improving the state of biodiversity are: afforestation of degraded lands; management by conservation and sustainable use of the existing and newly created forests (implying a positive economic effect by valorizing the wood harvested from the application of silvicultural works and treatments, as well as non-timber forest products).

Additional wood supply of the rural population has a beneficial impact on the living standards and the general state of forests, including the air basin and biological diversity conservation in general, due to the reduction of the pressure exerted through illegal cutting, grazing, etc.

The process of **reducing CO₂ emissions** through afforestation activities is another important action for stopping the biodiversity loss. Afforestation of land with the financial support of the World Bank will contribute, in 20 years, to reduce the CO₂ emissions by 3.6 million tons.

The current value of the ecosystem services (the 10% rate, over 25 years) for forest ecosystems is estimated at \$578.8 million.

An essential contribution of the Republic of Moldova at biodiversity conservation is represented by the monitoring of the state and conservation of the endangered, vulnerable and rare species of wild flora and fauna, in order to stop the loss of species and degradation of natural habitats. For this purpose, it was elaborated the Law on the Red Book of the Republic of Moldova and published two editions of the Red Book of the Republic of Moldova and in 2014 will be published the third edition of the Red Book. The lands with a large number of valuable species are taken under state protection being included in the protected natural areas fund.

In the Republic of Moldova, the agricultural ecosystems constitute 1951.8 thousand ha (75% of the territory of the country), of which the multiannual plantations constitute 240 thousand ha. The fruit plantations productivity depends largely on the presence of pollinating insects, entomophages and other groups of insects, whose activity contributes to obtaining valuable harvests. The value of food supply

The proper management and administration of the sectors of the national economy and the recognition that they depend on biodiversity and ecosystem services are crucial in ensuring continuous benefits for people and opportunities related to poverty reduction and economic development

ecosystem services for agriculture is estimated at about 21900.6 million dollars in 2011. But these groups of insects have suffered strong negative impact because of the excessive application of insecticides. If the agricultural system will be managed in the same way, then the agriculture of Moldova will experience immense losses because of the reduction of the productivity and quality of raw material.

The ecotourism in the Republic of Moldova has a significant economic value. The value of ecotourism is estimated at over \$ 5.9 million, according to the data of 2011. Most of the tourists are attracted by the beautiful landscapes, rich flora and traditions that are kept in the Moldovan villages.

Q2. What major changes have occurred in the status and trends of the biodiversity of the Republic of Moldova?

During the period after the Fourth National Report were carried out a set of activities that have contributed to the conservation of biological diversity and to the creation of conditions for a better management of natural resources.

1. Improvement of the legal framework

During the reporting period have been developed and approved 50 laws and normative acts on the protection of natural resources and biodiversity conservation, the main of them being:

- National Programme for the Creation of the National Ecological Network for 2011-2018 (approved by DGRM no. 593 of 01.08.2011);
- Parliament Decision no. 201 from 12.07.2013 on the Foundation of the Orhei National Park
- Law no. 200 of 12.07.2013 for the modification of the Fund of Natural Areas Protected by State
- Water Law no. 272 of 23.12.2012
- Regulation on Grazing and Mowing (2010)
- Regulation of Cadastre on Plant Kingdom (2009)
- 16 Framework Regulations on the implementation of the Water Law (approved in the Government meeting of 09.11.13).

The complete list of legislative acts and regulations is set forth in the Appendix no. ...

The following projects of legislative and normative acts are at the elaboration stage:

1. Biodiversity Conservation National Strategy and Action Plan for 2014 – 2020
2. National Plan on Extending the Forest Vegetation Areas for 2013-2018
3. Law on Landscapes
4. Law for the amendment of the annex no. 1 of the Law on Animal Kingdom no. 439-XIII of April 27, 1995
5. The new version of the Law on Biological Security, which is established in accordance with the EU Directive 18/2001 on the deliberate release into the environment of genetically modified organisms
6. Regulation regarding the control of the number of wild animals in the natural areas protected by state from the state forestry fund.

“Moldsilva” Agency has started the process of elaboration of the legal framework concerning forestry, by the connection of the national legislation to the international one and the EEC Directives, and in cooperation and with the support of international organizations it has begun the drafting stage of a new version of the Forest Code and of some normative acts in the field.

In the domain of sustainable agriculture, have been elaborated the following strategic documents:

- Food Safety Strategy for the Republic of Moldova for 2011 – 2015 (GRM Decision no. 747 of October 3, 2011)
- Strategy of Sustainable Development of the Agro-industrial Complex for 2008-2015 (GRM Decision no. 282 of March 11, 2008)
- National Programme on Apiculture Development in the Republic of Moldova for 2006-2015 (MAFI Order no. 152 of 30.06.2006)
- National Programme for the Development of Nut Crops until 2020 (GRM Decision no. 8 of 03.01.06)

The projects of the Strategy for Agriculture and Rural Development of the Republic of Moldova for 2014-2020 and of the Strategy on the development of the potential of biomass in the Republic of Moldova for 2012-2016, which provide for the development of the energy potential of biomass in the conditions of maintaining the environmental quality, are at the elaboration stage.

The activity on environmental protection, sustainable management of natural resources and biodiversity conservation is achieved through the implementation of legislative and normative acts in the domain, a list of which is set forth in the Annex no. ...

2. Expansion of the natural areas protected by state

An important result in the process of sustainable management of natural ecosystems of particular value and of biodiversity conservation in the Republic of Moldova can be considered the process of expansion of the protected natural areas fund in the recent years, by tripling the area of land taken under state protection and their inclusion in the Law on the Fund of Natural Areas Protected by State.

The surface of protected areas, before the taking under protection the wetlands of international importance was of **66476.6 ha or 1.96%**. The largest expansion of the fund of protected natural areas was done in **2006, when according to the Law no. 354** were **included** in the FNAP the

RAMSAR Wetlands of International Importance with an area of **94705.5ha** (especially the Lower Prut Lakes, Lower Nistru (Căușeni, Ștefan Vodă districts) and Unguri-Holoșnița (Ocnița, Dondușeni, Soroca districts), a fact which increased the percentage of protected natural areas up to **4.65%**.

The foundation in 2013 of the National Park "Orhei" (on an area of 33792.09ha) resulted in the expansion of the total surface of protected natural areas, up to 189385.9ha, which constituted 5.61% of the territory of the country.

The evolution of the surface of protected areas in the Republic of Moldova

Years	1998	2000	2003	2005	2013
Surface (ha)	66467,3	83922,8	143149,89	156776,09	189385,9
Rate (%)	1,96	2,49	4,24	4,64	5,68

Several state institutions (e.g. the Ministry of the Environment, the Agency "Moldsilva", the Academy of Sciences) and non-governmental organizations (e.g. the Environmental Movement of Moldova, the ES "Biotica", the NGO "EcoSpectru", etc.) actively participated in the expansion of the surface of the areas protected by state.

In order to solve the problems on the management of protected natural areas and preparing the legislative and institutional framework in the field, the Republic of Moldova received essential support from the Global Environment Facility (GEF, UNDP Moldova) by implementing the project "Improving Coverage and Management Effectiveness of the Protected Areas System in Moldova", which was conducted during 2009-2013. Within the project, were proposed a set of recommendations regarding the elaboration of statutes and objectives of management of natural protected areas according to the IUCN practices.

As part of the project "National Biodiversity Planning to Support the Implementation of the CBD 2011-2020 Strategic Plan in the Republic of Moldova" it was elaborated the new version of the Biological Diversity Conservation National Strategy and Action Plan in the Republic of Moldova for 2013-2020.

Other important projects implemented in the domain of environment and biodiversity, are listed in Annex 2, the main of them being:

- Council of Europe project "Support for the implementation of the Emerald Network in the Republic of Moldova";

- WWF Danube-Carpathian Programme project "Climate proofing the Danube Delta through integrated land and water management". The purpose of the project: the elaboration of measures on climate change adaptation in the south of the Republic of Moldova (Danube delta drainage basin). Implementation period-2010-2014;

- "CLIMA EAST" project: "Sustainable management of pastures and community forests in the National Park Orhei". Purpose – to demonstrate climate change mitigation, adaptation measures and benefits for local communities. Implementation period: July 2013-December 2016;

- The project "Agriculture Competitiveness in Moldova", Sub-component 3.3.: "Investment support for and rehabilitation of anti-erosion protection strips" for 2012 - 2017.

- Council of Europe trilateral project "Consolidation of the nature protected areas' network for biodiversity protection and sustainable development in the Danube Delta and Lower Prut river region – PAN Nature". Implementation period: 2014-2016.

Expansion of the areas with forest vegetation

According to the National Bureau of Statistics, the lands of the forest fund designed for nature protection purposes occupied in 2006 an area of **432.3 thousandha (12.78%)**, and in 2012 – **450.6 thousandha (13.32%)**. Although Moldova is facing many problems (drought, scorching heat, frost,

improper grazing, illegal cutting and mass drying of trees), the forest area is increasing, and, during the last four years, this area has increased by 3.5 ha.

The evolution of the area of the forest fund

Years	2006	2007	2008	2009	2010	2011	2012
Area (thousands ha)	432,3	439,0	444,1	447,1	450,0	450,9	450,6
Covering (%)	12,78	12,97	13,03	13,30	13,31	13,33	13,32

During 2002-2008, “Moldsilva” Agency, in cooperation with the local authorities, performed afforestation works on an area of about 60 000 ha (lands administrated by the local authorities). Thus, in accordance with agreements with the Prototype Carbon Fund and BioCarbon Fund of the World Bank, “Moldsilva” Agency reported emission reductions in a volume of about 515 000 tons of CO₂.

On January 1, 2012 in the Republic of Moldova, the forest vegetation occupied 462 700 ha (13.7% of the territory of the country), of which the forest fund constituted 419 200 ha (12.4% of the territory of the country), including forests – 374 800 ha. The afforestation degree of the territory constitutes 11.1% or 0,086 ha of forest per capita. The indicator is below the European average (30%), being close to the medium term task (15%) established in the Sustainable Development Strategy for the Forestry Sector (2001).

The National plan on extending the forest vegetation areas for 2014-2018 was approved, which stipulates the expansion of the afforested areas with 13 000 ha.

International framework

The Republic of Moldova has ratified 18 international conventions on environment, 6 of which directly promote biodiversity and natural heritage conservation (Annex....).

In the recent years, the Republic of Moldova has signed new treaties on biodiversity conservation, such as:

- *The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (December 2012)*

- *The Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety (December 2012)*

- *The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) (April, 2012)*

Have been signed bilateral agreements with the neighboring countries (Annex....), the main of them being:

- *Agreement between the Government of Romania and the Government of the Republic of Moldova on Cooperation for the Protection and the Sustainable Use of Prut and Danube Waters , signed in Chisinau and entered into force at June 28, 2010;*

- *Agreement between the Government of the Republic of Moldova and the Government of Ukraine on Cooperation for the Protection and Sustainable Development of the Dniester River basin.*

Biodiversity cadastre and monitoring

It has been developed a database related to the biological diversity of the Republic of Moldova, which can be accessed on the website of the “Biodiversity” Office (<http://bsapm.moldnet.md/>). It also includes historical data sources and methods by which were obtained the available data on biodiversity (including the evaluation of the data processing degree and specific indicators), analysis of the experience and of international trends on the development of databases and biodiversity monitoring system.

Flora

Flora includes 5638 species of plants, including tertiary relict species (of the genera *Quercus*, *Fagus*, *Carpinus*, *Crataegus*, *Cotinus*, *Acer*, *Swida*, *Berberis*, *Trapa*, *Typha*, *Phragmites*, *Nymphaea*, *Nuphar*) and quaternary relict species (of the families Asteraceae, Poaceae, Lamiaceae etc.).

The current flora of the Republic of Moldova:

Higher plants – 2014 species
 vascular plants – 1856 species (pteridophytes – 25, gymnosperms – 1, angiosperms - 1830)
 bryophyta (mosses) – 158
 Inferior plants – 3624 species
 lichenophyta (lichens) – 124
 algae – 3500;
 Fungi - 1200 species

Over the last decade of research of the floristic components were detected 125 new taxa for the flora of the Republic of Moldova (24 species-angiosperms, 1 species-moss, 100 species-algae). The fungi constitute about 1200 species, more than 600 species of which are macromycetes.

Fauna

The Republic of Moldova borders on the Balkan region and forms the transition zone between the faunistic elements of

the Asian continental steppe and European forest steppe.

Fauna constitutes about 15000 species, including 461 species of vertebrates (70 species of mammals, 281 species of birds, 14 species of reptiles, 14 species of amphibians and 82 species of fish) and more than 14 000 species of invertebrates, mostly insects.

03. What are the major threats to biodiversity in the Republic of Moldova?

The main causes of threats to biodiversity:

- irrational use and exploitation of natural resources;
- fragmentation of natural habitats;
- non-participation of sectors of the national economy to biodiversity conservation;
- poorly developed institutional framework of protected natural areas;
- lack of protection plans of rare and endangered species;
- environmental pollution;
- low levels of knowledge about the value of biodiversity.

Limited institutional capacity

In the country there are still elements of centrally planned economy with the application of administrative methods of control, the state and cooperative ownership prevails and the private property still develops. The coordination and synchronization of policies and activities related to the use/conservation of natural resources between the central public authorities is poorly promoted. The cooperation between the central and local authorities is even weaker. At the level of public finance management, an inefficient financing policy of the sectors that manage the natural resources is promoted. The Natural Areas Protected by State, where is concentrated the largest part of biodiversity, practically are not financed from the state budget.

Within the framework of the Ministry of Environment, there is the Natural Resources and Biodiversity Division, which is concerned also with problems of biodiversity conservation, protected areas management, biosecurity, hunting and fishing.

Disregard of laws

In the Republic of Moldova, are attested some achievements on the improvement of the legislation and its harmonization with the international legal framework. The existing legislative and normative framework, although it has some flaws, allows the promotion of environmental policy in the Republic of Moldova. But, the implementation of the laws is not satisfactory. Because biodiversity is not a priority of the national policy, the promotion of the legislation on its use and/or conservation is

avery difficult process. Violations of environmental laws and/or their disregard are a widespread phenomenon in society. The existence of undesirable phenomena such as poaching and illegal cutting of trees threatens not only the existence of species and ecosystems, but also discredits the work of the authorities in the field.

Insufficient appreciation of the value of biodiversity

The fact that biodiversity actively participates in solving socio-economic problems of society (such as poverty eradication, human wellbeing and health improvement) and maintaining the ecological balance is very poorly acknowledged by the general public and even by some authorities.

The economic activities and the national investment programs disregard the potential impact on biodiversity and the need for its sustainable conservation. The financial losses will be much bigger in the future if biodiversity conservation will not be included on the development programs of the sectors of economy. For example, only the activities concerning biodiversity conservation in the forest ecosystems can contribute \$ 0.6 million annually to the national economy over the next 25 years. Accordingly, this revenue can disappear after 27 years, if the capacity of ecosystems to produce timber and non-timber forest products will be significantly reduced.

Lack of integrated approach and coordination

The activities of coordination of the actions of the three environmental conventions (including the CBD) are in an early stage. The cooperation and the coordination between different central authorities (Ministry of Environment, Ministry of Agriculture and Food Industry, Ministry of Construction and Regional Development, Agency "Moldsilva", Agency for Land Relations and Cadastre, Agency "Moldova's Waters" etc.) are not always successful. The cooperation of the Ministry of Environment with the Ministry of Agriculture and Food Industry, Agency "Moldsilva" and the Academy of Sciences requires substantial improvement. The exchange of information between institutions is limited and the regulations by which various authorities are guided are not fully coordinated. Each institution tends to focus on its own programmes, without promoting opportunities of integration of its own financial and human resources with those of other institutions, in order to achieve a synergy at the realization of tasks at national level.

The national policy framework, although it is relatively developed in accordance with the objectives of biodiversity conservation and sustainable use of biological resources, requires a deeper integration of the stipulations of the Convention on Biological Diversity in sectoral policies and activity plans of the local public authorities. In these sectoral policy documents, the priorities related to biodiversity conservation are set forth unclearly and sporadically, not being taken from a basic policy document, but formulated according to temporary requirements and needs. Thus, the policy on agriculture and rural development is not always sufficiently coordinated with the environmental policy. In the current economic situation, it is difficult to include complex programs on environmental protection in the agricultural sector. The planned reassessment of agricultural subventions should consider their possible adverse effects on biodiversity.

The main threats, causing loss of biodiversity

-Illegal exploitation of forest vegetation

An important aspect in the process of ensuring the productive capacity of forests is to ensure their security and integrity. The activities undertaken by the competent authorities (Agency "Moldsilva" State Environmental Inspectorate, etc.) are still insufficient to stop the considerable losses caused to forests by illegal cutting, grazing etc. According to official records only during the last five years the illegal cuttings amounted to about 40 thousand m³ (about 65% are concentrated in forests administered by mayoralties and 35% - by the Agency "Moldsilva"). Independent studies estimate illegal tree cuttings in volume of about 400-600 thousand m³ annually.

Agency "Moldsilva" promotes a survey system of wood harvest and illegal cutting of forest fund administrated by the state. Silvicultural interventions are made on the basis of forest planning and taking into account the actual condition of the trees. For the forests managed by mayoralties the surveys have a high degree of uncertainty. It is also necessary to mention that the State Ecological Inspectorate, during the implementation of the art. 40 of the Law on Environment Protection and art. 22 of the Forest Code, still has a survey of the volumes of wood harvested legally and illicitly from the forests administrated by mayoralties.

The implementation of the forest certification process will determine the consideration of environmental and social aspects in the process of sustainable forest management, because it requires special conditions for identifying the components of forest biodiversity and measures for its conservation.

In order to ensure sustainable forest management, the following objectives are required:

- 1) implementing the general guidelines for conservation of forests adopted at European level (Helsinki) and the recommendations of the Intergovernmental Forum on Forests (IFF);
- 2) strengthening the institutional capacity of management and control of activities in the forestry domain;
- 3) establishing forest plantations on degraded lands and promoting native species;
- 4) performing forest management works on the land covered with forest vegetation with the purpose of preventing illegal cuttings and increasing forest benefits;

-Hunting and cynegetic poaching

The area of the hunting fund of the republic is of 2902.3 thousand hectares, of which 390.7 thousand ha - of forests, 2431.4 thousand ha - agricultural lands and 80.2 thousand ha - aquatic basins and marshlands.

The life conditions of the hunting species in Moldova are favorable for developing high numbers of animals. According to the Concept on Hunting Property Development adopted by Parliament on December 27, 1997, on the territory of the republic could live about 2000 deer, 20 thousand roe deer, 4 thousand wild boars, 200 thousand hares, 250 thousand pheasants, etc. But the concept is not feasible, hunting and livestock have decreased more. But the concept was not put into practice and the number of hunting animals has decreased a lot.

The results of the estimations of the recent years demonstrate that the number of deer is about 150-170 animals. The zone of the Central "Codrii" is populated by about 160-180 dappled deer. The number of roe deer is only 3500-4000 animals and the number of wild boars is about 2000-2300. Both numbers are far below the established capacity. The number of hares varies from year to year between 80 and 110 thousand, or about 50% of the potential.

The competent central authorities (Ministry of Internal Affairs, the Agency "Moldsilva", Society of Hunters and Fishermen of the Republic of Moldova, etc.) undertake certain actions to prevent and detect the acts of poaching. Thus, during the last years were carried out on average about 1500-1600 raids, in a result which were done 100-130 official reports, and confiscated hunting weapons, tools, animals illicitly acquired. Generally, the poaching of species of hunting interest for economic interest occurs in two different situations:

- 1) the motive for poaching is the poverty of the local population from certain zones who needs these animals for own use and this kind of poaching doesn't have a significant effect on the conservation of the respective species.
- 2) poaching is caused by desire to hunt/capture/harvest strictly protected species with a high price on the black market. This situation leads to significant adverse effects on the conservation status of the species concerned.

-Fishing and the use of piscicultural resources

In the last 10 years the fishery resources were reduced by approximately 90%. There are detected more and more cases of illegal fishing, especially in the Lower Prut area. In connection with the drastic reduction of their numbers, in the Red Book of Moldova, 12 species of fish were included. It has been established that up to 90% of the oocytes are subjected to changes of various degrees, including their resorption at such species as bream, pike, carp, roach, white-eye bream etc.

Damming the rivers Nistru and Prut (bank dams) led to the destruction of the breeding places for a lot of fish species, which prefer small, transparent, warm waters, resulting in a significant reduction of their numbers. The fish resources of Nistru River continue to be affected by structural changes caused by the reservoir Novodnestrovsk, being registered a reduced abundance of populations of valuable species of fish, especially reophilic ones. The species: European sturgeon, common sturgeon, starry sturgeon, eel, European mudminnow etc. are extinct or endangered. The cold water in the medial area of Nistru River influences negatively the amphibians. The coupling and spawning periods of such species as the common toad (*Bufo bufo*) marsh frog (*Rana ridibunda*) start by 30-40 days later in comparison with other breeding places in the central and southern zones.

In the accumulation lake Cuciurgan, in the result of the increase of the capacity of the Thermal Power Plant, the fish productivity decreased significantly. Negative changes of the biological condition and the numerical value of the populations of the main fish species were recorded. The lake herring, Eurasian ruff, broad snout disappeared from the lake ichthyofauna. The number of pike, bream, roach, bleak, silver bream reduced significantly.

-Illegal and unorganized grazing

The unorganized grazing causes decreased biological productivity, degradation of flora and impoverishment of the genetic fund of the herbaceous cover in the grasslands. The current productivity of grasslands is extremely low, at just 3 q/ha of fodder units. The available pastures can meet the growing demands of the state and the private livestock sector only if substantial improvement is done.

Unauthorized grazing in forests grew, causing significant damage to the forest ecosystem, since it affects the regeneration of forests. Thus, it was caused damage to large areas planted with forest cultures or regenerated naturally. Regarding the illegal grazing in forests, in the last five years were done 1260 official reports, which found a loss of 2.5 million lei.

Threats to biodiversity caused by habitat degradation, destruction and fragmentation

The main activities that caused considerable pressure on natural habitats, undermining the biodiversity are: emerging and widening of agricultural lands, destruction of the hedges, borders, grass strips between land sectors, excessive use of mineral fertilizers, etc. Extremely negative consequences on biodiversity were caused by the excessive use of pesticides in agriculture. The violation of the rules of storage, transportation and use of pesticides caused the destruction of many communities of plants, animals, microorganisms and fungi. Over the last decade, an alarming reduction of the soil fertility and an intensification of the soil erosion have been observed. The area of eroded soil is of 877.6 thousand ha or 25.9% of the total area of the country. The annual damage caused to the country's economy by erosion constitutes about 3 billion lei annually.

The unreasonable use of irrigation systems causes secondary salinization and alkalization of the soil. This phenomenon occurs as a result of the use of water with a particular soluble salt content and leads to a rapid degradation of the soils (especially, of black earth), as well as the reduction or destruction of the existing biota. The drainage works, the inclusion in the agricultural circuit of floodplain soils and marshlands have also caused a negative impact.

Cutting of hollow trees (which serve as a nesting place for many species of insectivorous birds and breeding place of over 10 species of bat), excessive grazing of domestic animals, planting monocultures etc. strongly reduced the ecological capacity of forest ecosystems to be populated by a larger number of animals. The forestry practice of doing tending works in the forest in the months of arrival and

breeding of birds reduce the food sources of woodpeckers—the main suppliers of hollows used by entomophagous bird species (flycatchers, titmouses, woodpeckers, nuthatches, common redstarts, etc).

The impact of invasive and alien species on biodiversity

The invasive species cause a strong negative impact on the biodiversity of the Republic of Moldova. The invasion of synanthropic species in the degraded natural ecosystems hinders the processes of restoring the natural biocenoses and affects their functionality.

The irrational use of natural ecosystems has led to their fragmentation, to a considerable reduction of the number and even extinction of some species. The absence of rivals and the presence of free ecological niches, create preconditions for the emergence of alien (foreign) species and the numerical growth of some native species, which by their excessive development may become invasive.

About 150 species of invasive animals inhabit the territory of the republic, including about 130 species that damage the crops and 15 species—forests. It was found that the annual losses from agriculture constitute 5-10% at grain crops, 15% at weeding plants and 25% at perennial crops.

Native invasive species are considered the common vole (*Microtus arvalis*), the common rat (*Rattus norvegicus*), the house mouse (*Mus musculus*) and dozens of species of insects—the main pests of agricultural crops and forests. Alien invasive species are considered the Colorado potato beetle (*Leptinotarsa decemlineata*), the fall webworm (*Hyphantria cunea*) Mediterranean fruit fly (*Ceratitis capitata*), San Jose scale (*Quadraspidiotus perniciosus*), etc.

The weeds with aggressive nature constitute 114 species, of which 11 - quarantine species. The representatives of these species damage mostly natural ecosystems of degraded pastures and agricultural ecosystems. *Acer negundo* represents a considerable danger to forest ecosystems.

Many non-native species of animals were introduced deliberately, though not always scientifically argued (raccoon dog, muskrat, dappled deer, pheasant, etc.). Over the years it was observed that the raccoon dog and the muskrat have become invasive species and the dappled deer proved to be dangerous for maintaining the native species of common deer.

Combating invasive alien species such as the Ash-leaved Maple (*Acer negundo*) is a problem in the forest management. Climate change creates favorable conditions for adaptation of many invasive insects. In 2007, then in 2009, because of this phenomenon, more than 60 000 ha were invaded by locusts (*Calliptamus italicus*, *Paracorypha microptera*, *Oedaleus decorus* and *Chorthippus albomarginatus*). The eventual warming in winter in recent years has led to the increase of the number of pest species, their density and intensity of crop damage. A great danger is related to the adaptation of the common rat (*Rattus norvegicus*) and the house mouse (*Mus musculus*) to the environmental conditions and the increased population of the territory.

Along with the damage that can be caused to the national economy is intensifying processes of spreading dangerous infections (tularemia, pseudo-tuberculosis, rabies, etc.). Of the 12 ixodid tick species, four of them (*Dermatentor marginatus*, *D. reticulatus*, *Haemaphysalis punctata*, *H. inermis*) have a high adaptive capacity, inhabiting various ecosystems and parasitizing a large number of animals and transmitting dangerous infections.

Q.4. How changes in biodiversity affect the ecosystem services and which is the socio-economic and cultural impact of these activities?

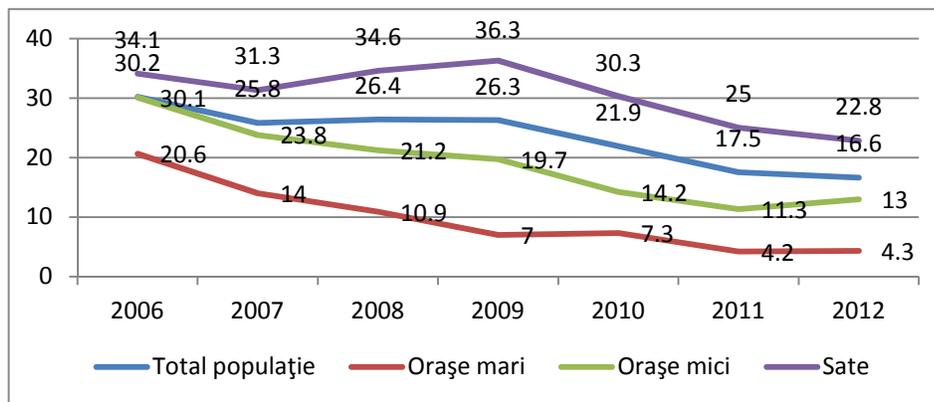
The low economical level and poverty influence negatively the biodiversity status and the quality of the products provided by the natural ecosystems.

The decision makers estimate differently the ecosystem values, facing the lack of necessary finances for the sustainable management thereof. Therefore little financial priority and attention is devoted to biodiversity conservation compared to other economic sectors that are more productive in terms of development. Therefore, those who promote the conservation of biodiversity are facing

communication problems sending a strong message about the links between the core values of biodiversity and ecosystem benefits. The ecosystems provide a significant flow of valuable goods and services and should be clearly communicated to the decision makers.

According to the official statistics of the Republic of Moldova, poverty in rural areas continues to be at a higher level than in urban areas. Although in 2012 there was a decrease in the poverty rate in rural areas, in the villages poverty is nearly three times higher than in urban areas (22.8% in rural areas versus 8.2% in urban areas). The poverty gap, which measures the revenue deficit of poor people relative to the poverty threshold, recorded a downward trend. The rural poverty rate was of 22.8%, compared to 25% in 2011, decreasing by 2.2 percentage points. Thus, the poverty gap was reduced from 3.2% in 2011 to 2.9% in 2012. This phenomenon of poverty in the Republic of Moldova affects the state of biological diversity. People need food, fuel and other natural resources for survival. Those who cannot buy these products sometimes obtain them illegally from forests and other natural ecosystems, in order to meet their vital needs.

Absolute poverty rate by place of residence, %, 2006-2012



Source: NBS

The key factors in the implementation of the environmental management are the central state institutions of the Republic of Moldova depending on their role in the socio-economic relations and the degree of their implication in the use of natural resources. The Local Public Authorities, private institutions and individual persons, NGOs and associations participate in the implementation of the environmental management policy.

In the recent years, in the Republic of Moldova, some changes have occurred in the environmental policy and management at national and local level, respectively. However, some of the environmental problems and especially those concerning the protection of the natural ecosystems and the natural resource management remain unsolved, and the effectiveness of the management is poor. This situation leads to delaying the promotion of reforms concerning the ecosystem services.

The main causes of the political, economic and social deficiencies from the Republic of Moldova which influence the state of natural ecosystems are:

1. the low level of socio-economic development;
2. the insufficient capacity to promote an efficient environmental management at all levels of environmental impact;
3. the low level of awareness and responsibility of the economic agents and population in the process of use of biological, water, soil resources, etc.;
4. the poor coordination of biodiversity conservation activities at sectoral and cross-sectoral level;
5. the failure to comply with the environmental requirements in the economic sectors with impact on the environment.

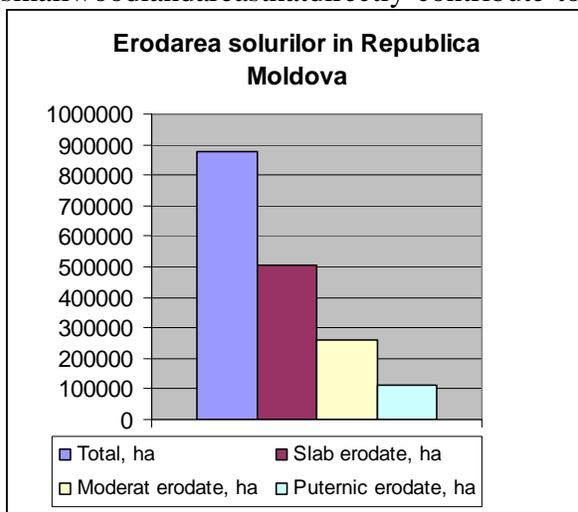
In order to achieve the major objectives of sustainable development and ecological security in the Republic of Moldova it is necessary to promote environmental management policies and activities suitable for the expected desiderata: democratization, market economy, harmony of the relations in the system "Man-Society-Nature".

Loss of biodiversity and ecosystem services from natural aspects

The biodiversity conservation management in the Republic of Moldova still faces problems related to the unreasonable use of natural resources and the negative impacts of these activities on the environment. There are active processes of degradation of natural resources, particularly soil erosion, intensified landslides, salinization, agricultural lands fragmentation, cutting of the protection strips of agricultural fields, etc. which lead to the reduction of soil biota and its productivity.

Soil, as a main natural resource, hasn't been properly protected by society. In the recent years, the state of the soil has become much more deplorable and the agrarian reforms carried out have not contributed essentially to stopping the erosion processes and soil fertility restoration. These phenomena therefore caused the degradation of the soil biota.

Biodiversity loss is directly conditioned by natural aspects, such as: rugged relief, heavy rains, small woodlands that directly contribute to soil erosion and increased risk of landslides. According to



data of the Land Cadastre of 01.01.2012, the eroded soils occupy about 877.6 thousand ha (Figure ...). The area of land with ravines constitutes 12.1 thousand ha. These negative processes withdraw from agricultural use about 100 hectares of land and about 10 - 15 million m³ of fertile soil annually.

The damage caused to the national economy by these phenomena is of about **83 million lei annually**, which represents a severe damage to land resources and leads indirectly to soil biodiversity loss. The salinization processes represent another danger to the natural ecosystems. The total area of saline soils constitutes more than 200,000 ha, of which 35% are arable lands and 65% - pastures. The

total damage caused to the national economy constitutes about **466 million lei annually**.

In recent years, in the country, the processes related to excess moisture and soil compaction, the surface of which constitutes 42,000 ha are also manifested. The soil fertility has been reduced by 10 percent as a result of unwise processing, and the damage constitutes about **436 million lei annually**.

Measures to solve the problem of stopping soil degradation

According to the Law on State Budget for 2010, 2011 and 2012, the implementation of the Programme for Exploring New Lands and Increasing Soil Fertility registered financial allowances of about 12 million lei annually. After using these resources were made the following works: drainage of the soils with excess moisture with their inclusion in agricultural use (about 350 ha annually); technical cultivation works on an area of about 260 ha (annually) and the inclusion of these lands in agricultural use, building of anti-erosion ponds for flood protection of localities with the possibility of irrigation of about 350 ha of agricultural land annually. Regrettably, the compliance of the beneficiaries with the provisions of the Law on Environmental Protection (Article 23, 35 - 39, 62), Land Code (art. 29, 33, 79), Law on Zones and Strips for Rivers and Water Basins' Protection is not ensured to a full extent at local level.

In the last three years, from the National Environmental Fund are allocated resources for financing the land improvement in a value of 35-45 million lei annually for stopping landslides and erosion processes, afforestation of degraded lands, strengthening of dams for protection from high flood, etc.

On the degraded lands managed by municipalities, in the last three years, forest plantations were made on an area of 824 ha. Also, more than 700 hectares of forest strips for the protection of the agricultural fields and aquatic resources were planted.

Loss of biodiversity and ecosystem services because of violations of environmental laws and measures of solving problems in the field

Violations of environmental laws, leading to loss of biodiversity and ecosystem services are: illegal buildings on land covered with vegetation, cases when the topsoil is not removed and the use of the fertile soil layer contrary to its destination, burning of stubble and other crop residues, overgrazing, poaching, illegal fishing and illegal cutting of trees, which severely affect the natural ecosystems and minimize the potential benefits of the products that can be obtained from these ecosystems.

Burning stubble and other crop residues is an example of activities with negative impact on biodiversity. According to statistical data, in 2010 the stubble burned on an area of about 627 ha, in 2011-475 ha and in 2012-106 ha and the damage caused to soil resources by such activity, amounts on average to 200 thousand lei annually. Anticipating the negative effects of burning stubble and crop residues, in the last two years have been developed programs on fire prevention. Mandatory indications have been established for the economic agents in order to prohibit crop residues burning and the respective problems have been reflected actively in the mass-media sources. As a result, the area of land subjected to fire decreased 5 times in 2012 in comparison with 2010.

The steppe and meadow ecosystems are affected by *overgrazing*-a phenomenon specific to the country, with negative influences on biodiversity. The livestock exceeds the set standards regarding the number of animals on 1 ha of pasture. However, the most pastures are poorly productive because they are situated on eroded lands populated by species that have no forage value. No measures are undertaken in order to improve them because of the lack of financial means.

In the process of counteracting illegal actions in the forests of the country, the State Ecological Inspectorate annually detected more than 800 cases of poaching, illegal cuttings and violation of the established norms of use of the exploitation fund, harvesting and transporting wood. The amount of fines imposed amounted to about 120 thousand lei annually.

A strong negative impact on biodiversity is caused by the unauthorized gathering of medicinal, aromatic and ornamental plants of the spontaneous flora. This kind of gathering is usually characteristic of the poor people whose incomes are below the level of poverty threshold.

It is encouraging the fact that more and more decision makers acknowledge the links between the state of biodiversity and the benefits obtained by the population.

Planning activities in the field of granting ecosystem services

In the period after presenting at the CBD of the Report IV, Moldova has taken some action regarding the promotion of ecosystem services:

1. has signed the "Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity" (January 25, 2012, at the UNO, New York);
2. became part of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) in Panama, April 2012;
3. within the project GEF-UNDP "National Biodiversity Planning to Support the Implementation of the CBD 2011-2020 Strategic Plan in the Republic of Moldova and to establish the national goals on Biodiversity Conservation until 2020" was developed the Biological Diversity Conservation National Strategy and Action Plan in the Republic of Moldova for 2013-2020 and prepared the report "The Economic Value of Ecosystem Services in the Republic of Moldova".

According to the data presented in the mentioned report, the value of ecosystem services in tourism, forestry, agriculture, fishing, water supply, climate change and natural disaster mitigation in Moldova is estimated at just under \$21,986 million (in 2011). The quantified value of ecosystem services (taking only few sectors into consideration) equated to some 41% of GDP.

In 2011, both, the public and the private sector benefited from the values of ecosystem services. For example, for eco-tourism sector, 13 % of the value was earned by the national budget, while 78 % (4.6 million USD) was earned by private enterprises. In agriculture sector, only 11% of the benefits were earned by the budget (425 million USD) while the private sector earned 86%.

Table X. Overview of how various sectors benefit from ecosystem services (adapted after Popa and Bann, 2012)

Sector	Key Ecosystem Service (SE)
Tourism	The interest for eco-tourism is increasing in Republic of Moldova as long as the number of visitors of PAs has increased from 6266 in 2008 to 9020 in 2010. Eco-tourists are increasingly appreciating places where natural resources are protected, this the tourists being beneficiaries of cultural services as landscape and recreation. Undisturbed ecosystems will continue to attract tourist while their willingness to pay for biodiversity conservation is increasing and can be captured. ESs in eco-tourism sector is estimated to have a total value of \$5.9 million in 2011 and a PV (10%, 25 years) of \$79.8 mill in sustainable ecosystem management scenario. In 2011, the contribution of eco-tourism at national GDP is estimated at \$7.9 mill.
Forestry	Forest ecosystems provide important provisioning services due to timber and NTFP that are entering the economy. Besides important regulating ES (addressed in water supply and Disaster risk mitigation sectors, the value of forest provisioning ES in 2011 is estimated at \$28.3 mill. Currently the sector is affected by illegal logging and a small emphasis on NTFP. In a sustainable ecosystem management scenario, with decreasing illegal logging and increasing interest for the potential of NTFP, the NPV for a 25 years horizon (10% rate) is estimated at \$578.8 mill. Even if the contribution of the forestry provisioning services to Moldova's economy may decrease in the near future, after 27 years the benefits will pass the losses.
Agriculture	Pasture and agricultural ecosystems are providing provisioning services that are estimated at \$3,998.8 mill in 2011. This value does not consider the regulation services (water and soil retention, carbon sequestration, pollination, etc. considered in other sectors). The main provisioning services are animal breeding – with bases in pastures and agricultural activities. Biodiversity conservation means an active management of pastures, by keeping them at the carrying capacity and also a sustainable management of the agricultural ecosystems, by extending the eco-agriculture and diversification of cultures. Sustainable ecosystem management in agriculture thus can add \$1,883.3million to the Moldovan Economy in the future 25 years.
Water supply	By conserving biodiversity and integrity of ecosystems, they will provide regulation services as: water retention, soil erosion control, etc. Reducing the soil erosion, transfers into reducing treatment costs of the domestic water suppliers. Baseline value of those avoided treatment costs is estimated, in 2011 at \$3.4 million, while, in the scenario of keeping the ecosystem integrity by conserving biodiversity, would add to the economy \$3.5 million.

Disaster risk mitigation	By providing regulatory ES (such as water retention, soil erosion regulation, nutrient control, etc.) the ecosystems can produce important effect in mitigation of floods, landslides and soil erosion. If the upstream protection functions of the ecosystems of ecosystems serve to minimize the impact of disaster by 10% below what it would have been in the absence of the protective functions, then the ecosystems' value of flood control in terms of avoided damage costs(projected on a <i>pro rata</i> basis) equates to an average of \$13.4 million a year – 19.7 million a year based on a damage cost avoided and preventative expenditure approach respectively. Carbon sequestration functions of the forest under SEM could generate an additional \$2.1 million (cumulative value over 25 years), if only present projects are continued.
Fishing	Water ecosystems are also providing fish – provisioning services. The sector is seriously impacted by a level of 70% illegal fishing. If this is to be addressed through proper enforcement of regulation, the total contribution of fishing sector to national economy may double, while the costs for managing the natural resources in a sustainable way is kept at present level.

The values of ecosystem services in the future may have a substantial multiplier effect across the national economy, which will create a significant impact on: income, consumption, employment and the general economic development, which the ecosystem services grant. For example, only eco-tourism sector generate total income, investment and spending in the tourist sector of \$7.9, including capital investment from international sources of \$1.4 million, as well as some 1400 full-time job equivalents.

In the Republic of Moldova there are opportunities to increase the levels of revenues generated from ecosystem services. For example, only the entry fees at natural protected area can be estimated at about **\$0.6 million** a year. Another example is from **agriculture**: due to under usage of pastures (under the carrying capacity) there is an untapped potential of **\$127.7 mills**. Increased public investment and policy action is required to capture domestic and foreign investment in order to achieve these benefits.

However, the insufficient political leverage, policy and low priorities concerning the ecosystem services can affect biodiversity and this fact will generate long-term economic losses. It was estimated that the continuation of such a policy (irrational use or non-use of ecosystem services) could cause the economy and population losses amounting to \$1,883 million in the next 25 years.

Ecosystem services should be developed simultaneously with the strict enforcement of the legislation in the Republic of Moldova that would lead to sustainable management of natural ecosystems and biodiversity conservation.

For example if the illegal fishing will disappear the value added to the economy by fishing sector and related industries may double in 25 years with the same budgetary investment, meaning an added value of \$26.9 mills. Well managed ecosystems may reduce significantly the damages produced by floods, soil erosion and landslides. For example, the protective functions of natural ecosystems serve to minimize the impact of natural disasters by 10% below what it would have been in the absence of the protective functions, and if these ecosystems don't provide protective function, only the flood control in terms of damage costs avoided equates to an average of \$13.4 million a year.

Part 2. Biological Diversity National Strategies and Action Plans, the process of implementation and integration in biodiversity

Q5. What are the objectives in the domain of biodiversity established in the Republic of Moldova?

The Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets, the efficient implementation of the Convention on Biological Diversity (CBD) will be achieved through a strategic approach comprising a shared vision, mission, goals and strategic targets that will inspire action on a large scale from all parties and stakeholders. The most Aichi (14) goals and targets are applicable and feasible and Moldova. Within the Biological Diversity Conservation National Strategy and Action Plan for (BNSAP) of the Republic of Moldova the three main objectives of the CBD will be applied:

- conservation of biological diversity
- the sustainable use of its components
- the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.

The measurable objectives that will be included in BNSAP of the Republic of Moldova are related to the implementation of the tasks established in the Action Plan of the European Union in the field of biological diversity for 2011-2020. It should be mentioned that BNSAP of the Republic of Moldova is at the elaboration stage and all the actions established in order to achieve the set objectives will be properly implemented at national level and planned for the years 2014-2020:

Target: Reduction of the pressure on biodiversity to promote a sustainable development.

(Corresponds to the Aichi strategic goals B and C)

Reaching the target will be ensured by the promotion of two measurable objectives:

1. essential expansion of the territories included in the Fund of Natural Areas Protected by State (PA) (from 4.65% to 8% of the territory of the country), by creating the Orhei National Park (by 2015), Lower Nistru National Park (by 2018), Danube Delta Biosphere Reserve with the tripartite collaboration of Romania- Moldova- Ukraine (by 2016), and the creation of the National Ecological Network (NEN) (by 2018) (*corresponds to the Aichi target 11*);

It must be mentioned that in 2009-2013, was developing the UNDP-GEF project "Improving Coverage and Management Effectiveness of the Protected Areas System" within which, for the first time since the 70s of the 20th century, was performed a complex re-evaluation of the Fund of Natural Areas Protected by State from the Republic of Moldova which included 470 Natural Protected Areas with an area of 195 587.67 ha.

According to the Law on Fund of Natural Areas Protected by State no. 1538 of 25.02.1998, the surface of protected areas from the Republic of Moldova was of **66.5 thousand ha** in 1998 (1.96% of the national territory). Over more than 10 years the surface of protected natural areas has been greatly expanded and, in 2013, it was of **189 386 ha**, which constitutes 5.68% of the country.

As a result of the re-evaluation of the Fund of Natural Areas Protected by State were determined the floristic and faunistic composition, the boundaries of protected natural areas and were developed their maps in GIS format.

2. The elaboration and implementation of the action plan for the restoration (re-acclimatization and reintroduction) of three plant species and three animal species (by 2020) (*corresponds to the Aichi Target 12*).

Target: To take measures to stop the dangerous processes for biodiversity (Corresponds to the Aichi strategic goals B and D)

Reaching the target will be ensured by the implementation of four measurable objectives:

- *The main objectives in the field of ecosystem services*
- The main objectives in the field of ecosystem services in the Republic of Moldova are the following:
 - Identification and quantification of the economic benefits provided by natural ecosystems, protected areas and biodiversity;
 - Creation/strengthening of the institutional framework responsible for the elaboration of the documents of policies and legislative ones, and the creation of mechanisms for ecosystem services and economic and fiscal incentives in this regard;
 - Identification of technical and material support in the development of a study for the connection to the EU Strategy on Green Infrastructure in order to encourage investments in projects on green infrastructure and maintenance of ecosystem services with aspects of biodiversity and natural and cultural heritage conservation;
 - Development of studies on raising the awareness of the economic agents and the general public on granting ecosystem services at the use of natural resources;
 - Establishment of the mechanism of sharing the benefits from the use of natural resources and biodiversity.

Given the insufficient level of afforestation of the country (therefore is recorded an intensification of the processes of soil erosion and landslides, of unfavorable change of hydrological regime, of continuous aridity of the environmental conditions) is proposed the objective 1:

1. Afforestation and grassing of the protection strips of accumulation water, public property: 2014 – 300 ha; 2015 – 360 ha; 2016 – 310 ha, in order to ensure measures of halting land degradation and climate change mitigation (*corresponds to the Aichi Target 12*).

From the National Ecological Fund are allocated annually sources of financing for land improvement (stopping landslides and erosion processes, afforestation of degraded lands, strengthening of dams for protection from high flood, elaboration of project documentation for liquidation of flood consequences and protection measures against them). In 2010, 45.4 million lei were allocated, in 2011 – 41.0 million lei, in 2012 – 35.6 million lei.

On degraded lands managed by mayoralties, during 2010 - 2012 were planted more than 800 hectares of forest plantations and 144 ha of forest protection strips.

2. By 2020, the greenhouse gas emissions from the agricultural sector will decrease by 20% (*corresponds to the Aichi Target 7*);
3. By 2018 will be afforested an area of 30 thousand hectares of riparian protection strips of river water and aquatic basins (*corresponds to the Aichi Target 15*);

Given the fact that the ecological reconstruction cuttings are followed by forest regeneration works (helping the natural regeneration, planting forest cultures, natural regeneration), is proposed the objective 4:

4. By 2020 will be carried out the ecological reconstruction of the degraded forest stand on an area of 5000 ha (*corresponds to the Aichi Target 5*);

It is worth mentioning that the main purpose of the CBD Strategic Plan for 2011-2020, which must be transposed into the National Strategy, is: *the reduction of the current rate of biodiversity loss at the global, regional and national levels as a contribution to poverty reduction and to the benefit of all the life forms on Earth.*

Q6: How was updated the Biological Diversity Conservation National Strategy and Action Plan in order to include the CBD objectives and serve as an effective tool for the sectoral integration of biodiversity?

The Republic of Moldova, by ratifying in 1995 the Convention on Biological Diversity (CBD), assumes the obligations regarding the implementation of the provisions of the Convention text and all official documents.

According to these obligations, the first Biological Diversity Conservation National Strategy and Action Plan were developed and approved by the Parliament Decision no. 112-XV of April 27, 2001. The Strategy and Action Plan, developed according to ecosystem principles, promotes also a cross-sectoral approach, which requires the participation of all levels of public authorities, scientific institutions of the Academy of Sciences of Moldova and of civil society in achieving the objectives of the Strategy.

This document includes four consecutive chapters: "Current status and trends", "Biodiversity Conservation Strategy", "Action Plan" and "Implementation of the Action Plan". *The action plan was prepared to achieve the goals and to solve positively the problems on the conservation of biological and landscape diversity that promotes activities at geosystem, ecosystem and species level.*

In the period 2001-2013, according to the Action Plan was envisaged the realization of 263 actions with a financial support of about \$19 million. A large part of the CBD BNSAP actions were fulfilled and the evaluation of the process of implementation of the CBD BNSAP was accomplished by four specialized reports.

Although the Republic of Moldova has made some progress (e.g. expansion of forests, restoration of wetlands), the ecosystem degradation, however, has not been stopped, and the pressure on biodiversity is growing.

However, many problems in the field of biological diversity conservation remain unrealized. Along with the increasing interest in biological resources, is also intensifying the anthropogenic pressure on the biodiversity components, appear many problems that require urgent solving. The current conditions (climate change, species extinction, habitat fragmentation, pollution, etc.) require a new more realistic, approach to biodiversity and a boost of its conservation processes.

The key achievements of CBD BNSAP:

- Consolidation of the legal and normative framework (laws concerning: fish stock, fishing and fish-breeding, ecological network, plant kingdom, water management, normative acts: criteria and indicators of sustainable forest management, the framework regulation on wetlands of international importance; Regulation on renting the forest fund for hunting management and /or recreational purposes).
- Expansion of natural areas protected by state to 189 386ha, or 5.68% of the territory of the country (24.1% of the total area of forest ecosystems; 4% of steppe and meadow ecosystems, 2.1% of aquatic and paludous ecosystems).
- Creation of the Orhei National Park on an area of 33.8 thousandha, according to the Parliament Decision no. 201 from 12.07.2013.
- Publication of the second edition of the Red Book of Moldova.
- Publication of the book series "Lumea vegetală a Moldovei" ("The Plant World of Moldova") (4 volumes) and "Lumea animală a Moldovei" ("The Animal World of Moldova") (4 volumes), the release of „Flora Basarabiei” ("The Flora of Bessarabia") in 6 volumes.
- Expansion of the forested areas by about 58 thousandha.
- Elaboration of the National Programme on the creation of the National Ecological Network etc.

visions of the Strategic Plan for Biodiversity of the European Union until 2020.

The content and achievement mode have been established taking into account the Decision VIII/8 of the CBD of 2005 regarding *Guidelines for revising BCNSAP*.

Beneficiaries of the present CBDBCNSAP will be public authorities from the domain (Ministry of Environment, Ministry of Agriculture and Food Industry, Ministry of Economy, the Agency "Moldsilva" etc.) the local public authorities, the civil society (associations, NGO community, ordinary citizens), the private sector (involved in industry, tourism, exploitation of natural resources).

CBDBCNSAP of the Republic of Moldova for the years 2014-2020, will represent a national policy document directed to update the CBDBCNSAP from 2001 and which will take into account the current conditions of development of the society, the contribution of the economic sectors to biodiversity conservation, international recommendations (the Aichi Targets adopted in Nagoya, Japan, 2010), and national and regional trends regarding the sustainable management and conservation of the biological diversity.

The main purpose of CBD NSAP 2014-2020 is to reduce the current rate of biodiversity loss at the global, regional and national levels as a contribution to poverty reduction and to the benefit of all the life forms on Earth. In BCNSAP will be applied the three main objectives of the CBD:

- conservation of biological diversity
- the sustainable use of its components
- the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.

The used methodology is based on assessing the current status of biodiversity conservation at national level, identification of the direct threats and the causes which determine or may determine the loss of biodiversity, as well as the analysis of the way how the legislative and institutional system meets the requirements in this domain. The obligations, threats and obstacles were prioritized and the strategic and operational objectives were identified. For each operational objective was established a set of actions and for each action was established the deadline for implementation, the responsible authorities, the estimated budget and sources of financing, the degree of priority and the performance indicators. The budget

of each action was estimated on the basis of the financial assessment which includes the costs of personnel/consultancy, equipment, work etc. The prioritization of the actions was determined by the severity of the threats, the vulnerability of biodiversity components and the obligation to comply with the international and community requirements for biodiversity conservation.

The Biological Diversity Conservation Action Plan contains 5 targets and 22 specific objectives, which include 101 actions (technologies and/or measures) appropriate at national level, as follows:

General Objective A. Ensuring sustainable management and efficient institutional framework on biodiversity conservation

The general objective will be attained through the implementation of 4 specific objectives, which include 15 actions.

Specific Objective A1. Elaboration of the normative framework regarding biodiversity conservation;

Specific Objective A2. Ensuring the efficient institutional framework for the sustainable management of biological diversity;

Specific Objective A3. Integration of the biodiversity conservation requirements in the planning and management of the economic sectors at national and local level;

Specific Objective A4. Ensuring the integration of the requirements of the international treaties in the national policies on biodiversity.

General Objective B. Reduction of the pressure on biodiversity in order to ensure the sustainable development

The general objective will be attained through the implementation of 3 specific objectives, which include 13 actions.

Specific Objective B1. Ensuring measures to extend the natural areas protected by state (NAPS) and the creation of the National Ecological Network (NEN);

Specific Objective B2. Ensuring measures for the conservation of rare, vulnerable and endangered species;

Specific Objective B3. Ensuring biological security measures.

General Objective C. Ensuring measures to stop the threatening processes for biodiversity

The general objective will be attained through the implementation of 4 specific objectives, which include 14 actions.

Specific Objective C1. Ensuring measures for stopping soil degradation and climate change mitigation;

Specific Objective C2. Ensuring measures for the minimization of the degradation of water resources and aquatic biodiversity and identifying measures to protect them;

Specific Objective C3. Ensuring measures for the mitigation of the negative effects of the invasive species;

Specific Objective C4. Ensuring measures for the minimization of the anthropogenic pressure on the vulnerable natural ecosystems.

General Objective D. Ensuring measures to increase the benefits from the use of natural resources and ecosystem services

The general objective will be attained through the implementation of 2 specific objectives, which include 11 actions.

Specific Objective D1. Promotion of measures of access to genetic resources and equitable sharing of the benefits from their use;

Specific Objective D2. Ensuring a sustainable management of the natural ecosystems that provide ecosystem services.

General Objective E. Ensuring scientific support on biodiversity conservation, access to information and promotion of the education for sustainable development

The general objective will be attained through the implementation of 3 specific objectives, which include 15 actions.

Specific Objective E1. Promotion of scientific research on biodiversity conservation;

Specific Objective E2. Ensuring the educational framework and personnel training in the field of biodiversity conservation;

Specific Objective E3. Ensuring awareness activities and information of the public on biodiversity conservation.

The Action Plan is part of the strategy and includes the methods that will help to achieve the objectives of the Biological Diversity Conservation National Strategy. In order to monitor the implementation of the Action Plan of the Strategy, were established performance indicators for each activity.

The procedures of monitoring, reporting and evaluation are designed as a continuous process, which will be updated and reviewed in the context of international negotiations within the framework of CBD, of the appearance of new information, as well as on the basis of the lessons learned with the advancement of the process.

The responsibility for the implementation of the CBD NSAP 2014-2020 belongs to all the competent institutions in the field, identified in the Plan. Simultaneously, in order to ensure a coherent implementation of the strategy, will be created a technical mechanism of monitoring of its implementation, which will include a Coordinating Group of the implementation of the Strategy and the Monitoring Group.

Q7: What action has the Republic of Moldova taken in order to implement the Convention after the presentation of the Fourth National Report of the CBD and which are the results of these actions?

An important role in the realization of the biodiversity conservation policy is played by the relations of the Republic of Moldova with the international organizations in this field, signing on January 25, 2012, at the UN, at New York, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity.

In April 2012 Moldova became part of the **Intergovernmental science-policy Platform on Biodiversity and Ecosystem Services (IPBES)**, Panama.

Also, the Ministry of Environment of the Republic of Moldova and the Ministry of Environment of the Republic of Estonia signed a cooperation agreement in the field of environmental protection (October 19, 2011, Tallinn).

A lot of attention is paid to transboundary environmental policy:

- the Government of the Republic of Moldova and the Government of Romania signed an Agreement on Cooperation for the Protection and the Sustainable Use of Prut and Danube Waters (June 28, 2010 Chisinau)
- Memorandum of Understanding between the Ministry of Environment of the Republic of Moldova and the Ministry of Environment and Forests of Romania on the cooperation in the field of environmental protection (April 27, 2010, Bucharest).

The Ministry of Environment has undertaken measures that will contribute, in the future, to biodiversity conservation, such as:

- The elaboration and promotion of the project of the National concept on sustainable management of mineral resources;

- The promotion in the Parliament the draft law on amending and completing of the law no. 1538-XIII of 25.02.1998 on the fund of natural areas protected by the state (inclusion of the National Park Orhei in the Annexes of the Law);
- The promotion in the Parliament the draft law on amending and completing of the law no. 755-XV of December 21, 2000 regarding biosafety;
- The elaboration and promotion of the draft law on hunting and protection of the cynnetic fund;
- The elaboration and promotion the draft law on landscapes;
- The elaboration and promotion the draft law on completing the annex 1 of the Law on animal kingdom no. 439-XIII of April 27, 1995.

Measures related to the improvement of the system of management of natural areas protected by the state were undertaken:

- the ecological status of protected areas was assessed, boundaries were set and GIS maps were elaborated and suggestions regarding the expansion of the fund of protected areas were made;
- the state cadastre of natural areas protected by the state was elaborated;
- were elaborated five operational guides for management of natural areas protected by the state (NAPS) regarding:
 - the development of management plans for NAPS;
 - the organization of activities concerning the conservation of NAPS;
 - the operational management of the NAPS;
 - the establishment of the Form on monitoring and reporting of the NAPS state;
 - the tourism and visitor management activities in NAPS;
- The Fund of Natural Areas Protected by the State has been extended by about 33 000 ha.

In the course of four years (from the publication of the Fourth National Report within the framework of CBD) the Republic of Moldova achieved significant results in the increase of efficiency of the researches in the field of CBD:

- taxonomic researches on the spontaneous flora of the Republic of Moldova were conducted and "The Flora of Bessarabia", volume I (altogether will be published 6 volumes) was published;
- the book series The Plant World and The Animal World, of 4 volumes each, was published;
- the Zoological Atlas and the Atlas of Climate Resources was published;
- monographs about scientific reserves, old parks of the country etc. were published;
- the population dynamics of rare plants were studied and the Third Edition of the Red Book of the Republic of Moldova is ready for publishing;
- the activities regarding the creation of the Biosphere Reserve in the Lower Prut area were started;
- the Clearing House Mechanism, which includes thematic spatial data in the field was concluded;
- scientific symposia and national and international conferences on the protection of flora and fauna, genetically modified organisms and invasive species were organized;
- for the first time, researches regarding the values of ecosystem services in the Republic of Moldova were performed and the main objectives in the field of ecosystem services in the Republic of Moldova were established;
- The Republic of Moldova joined the 7th Framework Programme of the European Union and now is intensively promoting the opportunities for the Eastern Partnership countries related to Research and Innovation programme Horizon 2020 etc.

From the National Ecological Fund are allocated annually funding sources for stopping the landslides and erosion processes, for afforestation of degraded lands, strengthening of dams for protection from high flood, elaboration of project documentation for liquidation of flood consequences and protection measures against them. In the last three years were allocated more than 122 million lei.

During this period on the degraded lands, managed municipalities, were made forest plantations on an area of about 1000ha.

Q8. How effectively is included the theme of biological diversity in sectoral and cross-sectoral strategies, programs and plans?

The biodiversity conservation is still integrated to an insufficient extent in the documentation of policies and legislation with sectoral aspect and the impact of the activities from various economic fields is directed towards environmental degradation and biodiversity loss.

The main activities that have generated considerable pressure on natural habitats and, simultaneously, on biodiversity are caused by the economic activity from various sectors, including: forestry, agriculture, fishing, hunting, transportation, etc.

For example: merging and expansion of agricultural lands has become a major cause of the disappearance of natural habitats and degradation of natural ecosystems and the use of irrigation systems has caused secondary salinization and alkalization of the soil, which led to the destruction of the existing biota.

A strong negative impact has been caused by drainage works, deforestation or indirect pollution. They have caused the disappearance of habitats outside the agricultural lands. In the Republic of Moldova has been made a series of works on land reclamation related to the inclusion in the agricultural circuit of floodplain soils, marshlands, small lakes.

Biodiversity conservation problems at the sectoral level

Agriculture

Agriculture in Moldova exerts a strong impact on biodiversity at all levels: genetic, species, populations, habitats and ecosystems. That is why it is very important to incorporate the aspects regarding biological diversity conservation in the field of agriculture.

The territory of the Republic of Moldova is characterized by a high degree of fragmentation of natural ecosystems with a high rate (73.8) of agricultural ecosystems. The peculiarities of the geographical position of the country, its comparatively small territory (33.8 thousand km²) cause a high degree of interaction between the natural and agricultural complexes. The Agrarian policy of the 60s – 80s of the twentieth century, oriented toward intensification, concentration and specialization of the agricultural sector has caused great harm to nature, favouring multiple negative processes.

The agricultural sector significantly influences the environment, and the market of organic products is developing rapidly. This fact became a prerequisite for the integration of environmental elements in agricultural policies and practices. For this purpose, in recent years, in Moldova has been developed a set of legislative and normative acts.

Legislative and normative acts in the agricultural sector:

- Law on organic food production (2005),
- National Strategy for Sustainable Development of the Agro-Industrial Sector in the Republic of Moldova (2008-2015),
- National Programme on organic food production (2006),
- Regulation on the methods and principles of organic food production (2006),
- Regulation on inspection and certification system for organic food production (2006),
- Rules regarding the important export of organic food products (2006),
- Agricultural land consolidation programme (2006),
- Food security strategy for the years 2011-2015,
- The Complex Programme to protect the soil against erosion for the years 2003-2012,
- National Action Plan to Combat Desertification (2000) and others which concern the conservation and sustainable use of agricultural biodiversity.

The general causes of the deterioration of agricultural biodiversity are:

- **at ecosystems and habitats level:** the disappearance or degradation of wetlands, forest reserves, hedges. This has directly influenced the decrease of habitats for many species of insects, birds, amphibians, mammals, higher and lower plants (e.g. habitats of dragonfly, common snipe (*Gallinago Gallinago*), different hydrophilic plant species);
- **at species level:** the use of herbicides causes harm to the commensal species and the use of insecticides – to microfauna. The development cycles of many organisms are distorted. Mechanization and soil fertilization cause changes of the balance between species;
- **at genetic level:** the number of species, varieties, breeds used is decreasing, and the monoculture favours this process. The irreversible genetic erosion of plant and animal species takes place.

The excessive use of pesticides in agriculture had extremely negative consequences on biodiversity. The violation of the rules of storage, transportation and use of pesticides caused the destruction of many communities of plants, animals, microorganisms and fungi. In the 80s chemical methods were used on an area of about 4.0 million ha. In orchards were practiced by 10 - 12 chemical processing, resulting in the decreased dozens of times of the pollinating fauna.

The use of irrigation systems caused secondary salinization and alkalization of the soil of the country. The secondary alkalization, influenced by the irrigation water, led to a rapid degradation of soils (especially of black earth) and to the reduction or destruction of the existing biota.

The agricultural activities listed favored the loss of biodiversity in agro-landscapes, affecting many species of herbaceous plants, animals, microorganisms and productive pastures by:

- exploitation of inappropriate land for agricultural practices, which resulted in losses of unique habitats. Different species adapted to extreme conditions of existence (salty soils, bogs, etc.) become extinct as a result of land reclamation works, plowing, sowing different crops, etc. In the 80s of the last century in the country were used over 50 thousand ha of such lands.
- drainage, deforestation and indirect pollution. They caused the disappearance of non-agricultural habitats. In the Republic of Moldova, a series of works on land reclamation related to the inclusion in the agricultural circuit of floodplain soils, marshlands, small lakes were made. The total land area of marshlands and swamp lands in 1960 was about 26 000 ha. In the period 1970-1985 this area was reduced due to the drainage works carried out on many of them, straightening beds of small rivers. These places were inhabited by many species of animals (otter, European mink, stoat, swan, greylag goose, heron, etc.) and plants (stevia, white lotus, water caltrop, *Orchis palustris*, floating fern etc.) whose number decreased sharply.

Spatial planning, infrastructure and urban planning

In the Republic of Moldova, spatial planning and landscaping activities are conducted according to the Law on spatial and urban planning, Law on regional development in the Republic of Moldova and the Concept of sustainable development of the localities of the Republic of Moldova.

The present territory of the Republic of Moldova is characterized by a high degree of anthropogenic exploitation and a relatively small share of natural landscapes. The processes of industrialization and urbanization in the last decades have greatly intensified the anthropogenic impact on the environment. The degree of landscape deterioration in the Republic of Moldova is very high due to the extensive agriculture and high population density, the agricultural lands constituting 73.8% (2011) of the country.

Under influence of natural, historical and economic factors, the network of settlements of the Republic of Moldova is characterized by a high density (5 villages per 100 km²), a relatively uniform distribution of localities throughout the territory of the country and the predominance of large rural settlements. A peculiarity of the human settlements network consists in the predominance of linear rural agglomerations, which constitutes prerequisites for their development in the system, which in turn can favour the realization of the urban plans of the villages.

One of the national problems related to the territorial organization of the country is the conservation of the natural territories in optimal condition in terms of number and size, which ensure the conservation of the biological diversity, maintenance of the ecological balance in the country, and the conservation and restoration of the natural landscapes with enhanced aesthetic qualities in order to meet the requirements of the population regarding the diversity of recreational activities, leisure and entertainment.

The continuous extension of the localities and areas of economic interest exerts an increasing pressure on natural habitats. The reduction and fragmentation of the areas of distribution of species and natural habitats leads to the extinction of some species of flora and fauna. They are especially affected by the development of transport infrastructure, the expansion of agricultural and forest monocultures, the urban noise, the human factor and the industrial pollution. The intensive exploitation of natural resources leads to undermining the functioning capacity of natural ecosystems.

In order to stop the process of fragmentation of habitats/landscapes and to moderate the overuse of natural resources, to designate the areas where the natural processes could have favourable conditions to manifest themselves, a fundamental step is the application of the territorial systematization according to the programs and provisions of the development strategies, the provisions of the national program on the development of various sectors and activities as well as the development of plans at regional level, creating the framework of the harmonious development of the territory.

In the process of spatial planning, the distribution of natural ecosystems, of rare, vulnerable and endangered species of animals and plants and other requirements of environmental protection are not taken into account.

The urban planning tool kit is obsolete. For the most localities of the Republic of Moldova, the urban plans were developed during the 80s -90s of the twentieth century. Currently, the general urban plans of few localities are renewed.

The insufficient level of monitoring and coordination of building of factories and dwelling houses has led to the spread of the "illegal building" practice.

There is a disproportion between the balanced socio-economic development of territories and localities and the rational use of natural resources and their protection.

Forestry

The forest resources of the Republic of Moldova are made up of the forest fund resources and the forest vegetation on the lands beyond it.

The National Forest Fund constitutes 12.7% of the territory. Most of the lands covered by forests (87.2%) are in state ownership, the rest being owned by municipalities (12.2%) and only 0.8% - by private owners. The communal and private forest fund is continuously increasing in terms of quantity and ecological importance.

The main policy document in the field of forestry is: the Strategy on Sustainable Development of the Forest Sector in the Republic of Moldova, approved by Parliament Decision no. 350-XV of July 12, 2001.

The main objective of the Strategy is to achieve a degree of afforestation in the Republic of Moldova of 15% by 2020, covering with forest vegetation 130 thousand ha. This volume is stated in another policy document - Programme for Exploring New Lands and Increasing Soil Fertility for 2003-2010, approved by Government Decision no. 636 of May 26, 2003.

And, during the years 2001-2011, for the realization of actions stipulated in the Action Plan on the protection of forest ecosystems from the Biological Diversity Conservation National Strategy and Action Plan (2001), and other programs and strategies in the field of forestry for which the agency with this field, the following objectives were achieved:

- while planning the forest work in the reference period, the focus was primarily on the protection of the biotopes and rare and endangered species. The rare and endangered wood species, according to the Rules of issuing standing timber in the forests, are harvested only when they are dried up.

- in order to elaborate some normative acts in order to encourage the creation of the private forest fund in the National Action Plan FLEG and the Programme ENPI/FLEG were developed recommendations on the new structure of the Forest Code, which contains a separate chapter "Administration and Management of forest fund private property". According to General Cadastre approved by Government Decision at 01.01.2012, the private forest area constitutes 2375 ha. These are the forests created on private land. At the same time, recommendations to the Regulation on the forest regime of communal and private forests were elaborated.
- In order to elaborate and approve normative acts regarding forest fund monitoring, use of forests for recreational purposes, by the Government Decision no. 740 of 19 June 2003 was approved the Regulation on forest land use for recreational purposes and scientific research. Later, in accordance with Government Decision no. 187 of 20.02.2008 was approved the Regulation on renting the forest fund for hunting management and /or recreational purposes.
- at the option: "Modification of the institutional framework of the state forest fund management by separating of the functions of promotion of the policy in the field from those of economic activity, separating the state control from the departmental one", the Agency "Moldsilva" with the support of the World Bank and the International Union for Conservation of Nature (IUCN), within the project ENPI/FLEG elaborated in 2012 the project "Forestry Institutional Reform Strategy in Moldova".

The general objective of the strategy is to reform the forestry sector in order to increase its contribution to improving the quality of life, on the basis of the efficient and sustainable management of forests. As a result of the implementation of the Strategy, the functions of promoting the policies and controlling the management of the forest fund will be divided clearly.

- in order to achieve the objective: "elaboration and implementation of the national programme on ecological reconstruction of degraded forests and increase of forest areas" the Agency "Moldsilva" by the order no. 90 of 04.04.2012 approved the Technical norms regarding the ecological reconstruction of forest stands. These norms provide for methods and technologies on restoration, replacement and improvement of low productive, derived degraded and inappropriate to the environmental conditions forest stands. The Government approved in 2003, by the Decision no. 737 of 17.06.2003 the State Programme on regeneration and afforestation of forest fund lands for 2003-2020. This programme provides for the creation of forest cultures on a surface of 24655 ha, helping the natural regeneration on a surface of 39036 ha and the natural regeneration on a surface of 31427 ha. During the period 2002-2011 in the forest fund managed by the Agency "Moldsilva", forest cultures were established on an area of 9515 ha, works meant to help the natural regeneration were performed on an area of 19934 ha and were left under natural regeneration 5116 ha. In 2005, was published the manual (teaching material) "Ecological Reconstruction".

For information: in the period 2001-2011, in the forest fund, state public property, ecological restoration measures were carried out on a surface of 3792 ha. In reserves, the ecological reconstruction works are coordinated and reviewed annually by the commission attended by representatives of the Academy of Sciences and Ministry of Environment.

After analyzing the Action Plan of the Strategy from 2001 it was established that certain actions of the plan were not fulfilled because of the lack of cooperation between the institutions responsible for its implementation.

In order to overcome the gaps and obstacles of the legal/normative framework, a more effective cooperation between the relevant authorities is necessary, as well as to increase the share of financial resources to resolve the problems related to biodiversity.

Pisciculture

The problems concerning the protection and improvement of aquatic biological resources of natural water bodies are:

1. The substitution of economically valuable fish species with species with low growth and low economic value. Of the total number of fish species found in the natural aquatic basins of the Republic of Moldova, 13.8% have rarity status.
2. Invasion of the reservoirs (especially Dubăsari and the Middle Nistru sector) with aquatic vegetation consisting of lacustrine and paludous plants, which contributes to the initiation of swamping.

Because of the discharge of water reserves from reservoirs (from Novodnestrovsc, Ukraine) the phyto and fish species cannot use the spawning places from the middle of Nistru River and the area of the spawning places of the Dubăsari reservoir is insufficient.

The regulation of the manner and conditions for the creation and protection of the fish stock, breeding, growth and obtaining of hydrobionts, improvement of the water bodies where fish live, the development of fish farming, the activity of the public authorities charged with the management of aquatic biological resources are stipulated in the **Law no. 149 of 08.06.2006 on fish stock, fishing and fish farming**.

In order to regulate the procedure of the use of fish resources from the water bodies of the Republic of Moldova, it has been developed and approved the **Regulation on the authorization of fishing in natural water bodies** (Government Decision no. 888 from 06.08.2007).

Regarding the protection of fish resources, the Agreement between the Government of the Republic of Moldova and the Government of Romania on cooperation for the protection of fish resources and regulation of fishing in the Prut River and in the reservoir Stâncea – Costești (from 01.08.2003) was concluded.

The main fields of cooperation are:

- sustainable management and exploitation of fish resources from the Prut river and the reservoir Stâncea – Costești;
- Development of aquaculture;
- cooperation in the field of scientific research on fish resources.

Under the aegis of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes at which the riverside countries are parties, was elaborated and signed the Agreement between the Government of the Republic of Moldova and the Government of Romania on cooperation for the protection and sustainable use of Prut and Danube waters (signed in Chișinău, June 28, 2010). It was also signed The Protocol on intentions of collaboration in the field of ecological recovery of the Nistru River basin (Moldova and Ukraine). The Ministry of Environment initiated (November 2013) the elaboration of the Management Plans of the Nistru River Basin District and Danube-Prut River Basin District and the Black Sea in accordance with the provisions of the Law no. 272 of December 23, 2011 and the Government Decision no. 866 of November 1, 2013 on approving the Regulation on the procedure for elaboration and review of the Management Plan of the river basin district.

The necessary measures for the protection and improvement of the state of aquatic biological resources from natural water bodies are:

1. Conducting common ichthyologic studies (with specialists from Romania and Ukraine), including providing a data exchange, taking measures on the current situation, trends, opportunities for conservation/restoration and sustainable use of fish resources in transboundary natural water bodies;
2. Ensuring a continuity of improvement measures of pisciculture by the repopulation of the reservoirs from Dubăsari and Stâncea-Costești with native species of fish, including rare and endangered species, to the extent that will ensure the maintenance and increase of the number of fish due to the continuous reproduction of these species;
3. Taking measures on fishing regulation by establishing the allowed sizes for fishing some species, taking into account the growth in the current environmental conditions, limiting the

industrial/commercial fishing in some sectors of the aquatic basins in order to avoid overfishing;

4. The creation of a center for breeding valuable fish species with the status of ameliorative-piscicultural center for natural water bodies;
5. Intensification of the protection of the fish resources in natural water bodies, preventing the cases of poaching and irrational use of fish resources;
6. Providing consultative assistance to the local public administration in organizing and conducting the prohibition of fishing during the spawning season;
7. Public information and drawing the attention of civil society (NGOs, initiative groups, etc.) on national actions concerning the protection of aquatic biological resources in natural water bodies of RM.

Q9. How well were realized the national strategies and action plans on biodiversity conservation?

Biological Diversity Conservation National Strategy and Action Plan (BCNSAP), approved by Parliament Decision in 2001, provides for the realization of 263 actions with a financial support of about \$ 19 million. Their main executors are: Ministry of Environment, Academy of Sciences, Ministry of Agriculture and Food Industry, Ministry of Education, Agency "Moldsilva". BCNSAP is an ambitious and innovative document representing the first political act fully dedicated to the conservation of biological diversity in the Republic of Moldova.

During the period after the adoption of BCNSAP (2001-2012), an important part of the planned activities have been fully or partially completed. Among the basic achievements of the BCNSAP, the following can be mentioned:

- 1) Strengthening the legal and normative framework for the conservation of biodiversity (law on fish stock, fishing and fish farming; National Ecological Network, plant kingdom, water management, indicators for sustainable forest management, regulation on renting the forest fund for hunting management and /or recreational purposes, framework regulation on the wetland of international importance, etc.).
- 2) Expansion of natural areas protected by the state up to 5.5% of the country (24.1% of the total area of forest ecosystems; 4% of steppe and meadow ecosystems, 2.1% of aquatic and paludous ecosystems); foundation of "Orhei" National Park (Parliament Decision no. 201 of 07.12.2013).
- 3) Extension of afforested areas by about 58 000 ha.
- 4) Publication of the second edition of the Red Book of Moldova and the development of the third edition, the publication of the book series The Plant World and The Animal World, of 4 volumes each, of the first volume "The Flora of Bessarabia" and other books on this topic.
- 5) Conducting scientific researches on the state of the various components of the Fund of Natural Areas Protected by the State, and their assessment and revalidation.
- 6) Improvement of the communication strategies regarding the benefits of the policy on biodiversity conservation and environmental education, support of the civil society and local authorities.

The periodical assessment of the implementation of BCNSAP was achieved through the development of four national reports on biodiversity conservation activities in the Republic of Moldova, thematic reports regarding forest ecosystems, invasive alien species, establishing the problems in this field and the ways to solve them etc.

However, some approaches/actions from BCNSAP are still relevant, and in order to boost the implementation process are required structural specifications/changes.

Taking into account the further development of the legislative base as a main condition and a priority direction in the work of implementing the *Biodiversity Conservation Action Plan* were:

- identified operating possibilities, ensured by the available national legislation and available international conventions (ratified or not ratified by the Republic of Moldova);
- identified overlaps, contradictions and gaps that are manifested in the sectoral policies and legislation in the country;
- emphasized the policies and juridical regulations by which is exerted a significant impact (positive or negative) on biodiversity;
- established the national priorities and developed a series of measures on the improvement of the national legislation on biodiversity conservation;
- identified the international conventions and treaties proposed for ratification;
- completed the legislative and normative framework regarding the biodiversity conservation

Reports made during the realization of the CBD NSAP 2001-2012:

- Thematic Report on Alien Species
- Thematic Report on Forest Ecosystems
- Report on the Establishment of a System of Indicators of Agro-biodiversity
- Report on Revealing the Representative Sectors of Meadows To Be Taken under State Protection
- Report on the Development of Criteria and Indicators for Sustainable Forest Management in Moldova
- Report on the development of basic elements for extending the protected areas network and improving management tools according to the dangers that threaten biodiversity and objectives of National Strategy, as well as the provisions of the Convention on biological diversity;
- Report on the improvement of legal framework and institutional infrastructure related to biodiversity conservation and sustainable use of natural resources
- Report on the evaluation of the capacity of non-governmental organizations (NGOs) to work in the domain of agro-biodiversity conservation and identification of development necessities of their capabilities;
- Report on the preparation of proposals for improving the institutional framework in the area of biodiversity conservation
- Report on the design of the database structure and monitoring system of biodiversity. Identification of the available sources and facilities and needs of prospective development
- Report on the development of mechanisms and means for stimulating the practices of sustainable use of renewable natural resources in the economic and social transition circumstances specific Moldova;
- Report on the assessment and mitigation measures of the impact on forest biodiversity components.
- Report on the mitigation of the impact on agricultural biodiversity components.

with new laws.

The biological resources of the Republic of Moldova, as a source of economic, environmental and social benefits are limited. Given the high vulnerability of biodiversity (about 80 percent of the total of faunistic and floristic complexes) caused by natural and anthropogenic factors, there is a big difference between the genetic potential and the potential of use of biodiversity.

After evaluating the performance and limits of the legal framework which regulates the management of biological resources were developed new laws, necessary to reinforce and complement the existing legislation.

There were taken measures to restore, maintain and reduce the decline in the population of 269 endangered plant species and 215 animal species, according to the requirements of IUCN.

A further development had the application of the ecosystem approach to biodiversity conservation activities, researches related to the development of natural ecosystems, assessing the impact of climate change on biodiversity (vulnerability and adaptation).

The Republic of Moldova included in the Biological Diversity Conservation National Strategy and Action Plan and in other national and local programs and plans the activities corresponding to the work programs mentioned above, but they were realized partially because of the insufficient resources and inefficient coordination.

In the Republic of Moldova, the measures on implementing the Convention and in particular the objectives of conservation and sustainable use of biodiversity are included in a set of policy and strategic documents:

Policy and strategic documents, which include objectives regarding biodiversity conservation:

- National Programme for the Establishment of the National Ecological Network for 2011-2018;
- Economic Growth and Poverty Reduction Strategy (EGPRS) - the chapter "Environmental protection and sustainable use of natural resources" for 2013-2018;
- Economic Stabilization and Recovery Program of the Republic of Moldova for 2009-2011;
- Strategy for Development of Rural Extension Services for 2012-2022;
- National programme of Informatization of the Sphere of Culture for 2012-2020;
- Government Action Plan for 2012-2015;
- Open Government Action Plan for 2012 - 2013;
- National Energy Efficiency Programme for 2011-2020;
- National Security Strategy of the Republic of Moldova, 2011;
- Land Transport Infrastructure Strategy for 2008-2017.

Preparation and inclusion in training programs at pre-university and university level of the information on the role and importance of the National Ecological Network - In the framework of the plan for primary, secondary, and high school, for the 2010-2011 school year, in the list of optional subjects for secondary classes, the Ministry of Education recommended the subject: "Environmental Education" and for high classes - the subject "Environmental Protection", pupils are informed about the role and importance of the ecological network in various situations, both at the biology, chemistry, physics, geography lessons and within the framework of extracurricular activities.

Projects on the restoration of the forest ecosystems in the meadows of Lower Nistru, Lower Prut and Răut rivers were elaborated and implemented.

The Botanical Garden (Institute) of the ASM conducted extensive researches on the taxonomic composition of vascular plants (equisetophyta, pteridophyta, pinophyta, magnoliophyta) of the spontaneous flora of the Republic of Moldova and initiated the publication of "The Flora of Bessarabia" in 6 volumes.

The Institute of Zoology determined the taxonomic spectrum and the quantitative parameters of the main communities of hydrobionts, assessed the current state of hydro-biocenosis and assessed the water quality according to hydrochemical and hydrobiological indices in the Lower Prut area.

In this subchapter "Research and Monitoring":

1. Elaboration of lists of rare species and communities of meadow ecosystems and their introduction into the Red Book and Green Book of the Republic of Moldova. - The Botanical Garden (Institute), the Institute of Zoology and the Institute of Ecology and Geography of ASM investigated the status of flora and fauna from meadow ecosystems and selected the species proposed for the Red Book of the Republic of Moldova Third Edition. Also, were developed principles for determining the

rarity criteria in accordance with the international requirements and were adapted to the regional peculiarities.

2. Monitoring of the aquatic biota in significant habitats (Danube, Nistru and Prut rivers, Belevu and Manta lakes). - The Institute of Zoology estimated the parameters of the species number and biomass of bacterio-, phyto-, zooplankton and zoobenthos, determined the chemical composition of water in Nistru River, Ciciurgan and Dubăsari reservoirs and estimated the influence of high floods on them.

3. The Botanical Garden (Institute) and the Institute of Zoology of the ASM assessed the number and distribution of the species of plants and animals in ecosystems of different types, including those from the Red Book of Moldova, the second edition, vulnerable and endangered species, economically valuable species, as well as dangerous ones for human health. Were established some adaptive modifications of animal species to climate and social changes.

4. The Institute of Zoology, the Botanical Garden (Institute) and the Institute of Ecology and Geography of the Academy of Sciences of Moldova developed cadastres on: objects of the animal and plant kingdom, natural areas protected by state; the cadastral information is placed on the official sites of the mentioned institutes.

Regarding the creation of databases of biodiversity of flora, fauna and microorganisms – the Botanical Garden (Institute) of the ASM has a gene pool of about 10 000 species and varieties of the spontaneous and introduced flora of the Republic of Moldova stored in collections and exhibitions. Together with State University, they have a herbarium of higher plant species (mosses, ferns, gymnosperms and angiosperms) and lower plant species (fungi and lichens) including more than 320 thousand samples. The Institute of Zoology of the ASM has a collection of 182 species of birds and 4700 species of insects. The collection of fossil animals include 500 species (1600 samples). The Institute of Microbiology of ASM owns the national collection of microorganisms, which includes about 500 taxa - bacteria, fungi and algae. The Ministry of Agriculture and Food Industry within the research programs financed by the ASM founded the database on seeds at the Scientific-Practical Institute of Phytotechnology. It is also created the database of the genetic fund at the Scientific-Practical Institute of Horticulture and Food Technology. The Biodiversity Office of the Ministry of Environment elaborated the database on the taxonomic composition of the flora and fauna of the natural ecosystems from Moldova.

Elaboration and implementation of a complex scheme of use and protection of the aquatic basins of the Nistru and Prut rivers. - The Agreement between the Government of the Republic of Moldova and the Government of Romania on Cooperation for Protection and Sustainable Use of Water Resources of the Danube and the Prut was signed.

At the Fifth Meeting of the Expert Group of the Republic of Moldova and Ukraine on the protection and use of aquatic biological resources in transboundary basins, was signed the Joint Action Plan for 2011 on the Protection and Rational use of Biological Resources in Transboundary Basins.

Within the Council of Europe's project "Support to the implementation of the Emerald Network in the Republic of Moldova" (Sub-regional Project for Armenia, Azerbaijan, Belarus, Georgia, Moldova, Russian Federation and Ukraine) Biosafety Office achieved the following:

- Elaborated and completed the database of sites;
- Structured the digital information on habitats and species in GIS and the final information Emerald will be integrated into the European system of databases;
- Elaborated and presented to the Council of Europe the List of Species and Habitats for which were developed the Distribution Maps;
- Organized the Second National Seminar Emerald in Chişinău on February 23-25, 2010;
- Made field visits to the valuable sectors for biodiversity, potential Emerald areas in Moldova, in order to estimate the current state of flora and fauna and the presence of endangered species and habitats.

Development and realization of the TV programmes "Collections of Microorganisms", "Botanical Collections", and "Zoological Collections"; the distribution of this information through the Internet

In the order to achieve the objectives related to environmental education and public awareness in the field, were made annually over 150 radio and TV programmes. The theme of these programmes included information on the protection of rare and endangered species, the rational use of flora and fauna resources, involving the local population in activities for urban and rural sanitation, etc.

Published monographs regarding the Biodiversity Conservation in the Republic of Moldova:

- The Plant World of Moldova (in 4 volumes). "Știința", 2005- 2007;
- The Animal World of Moldova (in 4 volumes). "Știința" 2004-2006
- The Red Book of the Republic of Moldova, "Știința", 2001;
- The Flora of Bessarabia, vol I, "Universul", 2011
- Medicinal Plants, "Litera International", 2011
- Treatise on Ecology (in 5 volumes), etc.

Were also published a series of monographs, which reflected the current state of biodiversity in the Republic of Moldova, proposed solutions for improving the status of endangered species, ecological restoration of degraded habitats, etc.

The shortcomings mentioned in the implementation the Biological Diversity Conservation National Strategy and Action Plan

1. The biggest shortcoming in the implementation of the CBD NSAP in the Republic of Moldova during 2001-2012 was the disregard of the legislation concerning the protection of the environment, including that which relates to the conservation of biodiversity.

2. The coordination of actions within the framework of the three Environmental Conventions, the biodiversity monitoring, the financing of activities concerning biodiversity conservation and the integration of biodiversity conservation requirements in sectoral programs are at an unsatisfactory level and require considerable effort to improve the situation in this area.

3. The scientific researches and staff training and improvement according to the current requirements are done poorly because of the limited financial and human resources. The provision with scientific equipment and reagents of the research facilities are at a very low level. The research institutions of the ASM have developed monitoring programs and their implementation is achieved only partially in the protected areas. The researches of the rare and endangered species at population level are at an early stage. The main barrier in implementing the research and monitoring programs are the limited financial resources and the low level of cooperation in their realization.

4. Although it is established the system of natural areas protected by the state, the protection regime is not respected: management plans for these areas lack, often are made unjustified works in the natural protected areas etc. Effective measures to reduce the risk of losing the rich collections of crop plants and domestic animals are not taken. The protection activities of plant species which are the wild ancestor of crop plants are at an early stage and still haven't produced the expected effect.

5. The Republic of Moldova included in the Biological Diversity Conservation National Strategy and Action Plan and in other national and local programmes and plans the activities corresponding to the work programmes mentioned above, but they were realized partially because of the disregard in the economic sector of the objectives of biodiversity conservation.

Part III: The progress made in achieving the Aichi Targets until 2020 on the conservation and sustainable use of biodiversity and the contribution to achieving the national Millennium Development Goals

Q10. What are the results obtained by the Republic of Moldova during the implementation of the Strategic Plan on the conservation and sustainable use of biodiversity for the period 2011-2020 and of the objectives for the conservation and sustainable use of biodiversity, approved at Aichi?

The Republic of Moldova promotes the Millennium Development Goals (MDGs) until 2015, setting targets at national level in order to achieve the MDGs, after the consultation with civil society and development partners. Thus, the MDGs outlined by the Republic of Moldova, include the Goal 7 "Ensuring environmental sustainability".

The Government's Activity Program "European Integration: Freedom, Democracy, Welfare" is based on several fundamental approaches including *Ensuring the sustainable management of natural resources*.

The main strategic documents, elaborated by the Republic of Moldova, with tangency on biodiversity:

- 1) Biological Diversity Conservation National Strategy and Action Plan, approved by DPRM № 112-XV of 27.04.2001;
- 2) Programme of Water Supply and Sewerage of Localities from the Republic of Moldova until 2015;
- 3) Complex Programme on Soil Protection from Erosion for the period of 2003-2012;
- 4) National Programme on Organic Agro-Food Products (2006);
- 5) Land Consolidation Programme (2006);
- 6) Strategy for Republic of Moldova Agro-Industrial Complex Sustainable Development during 2008-2015;
- 7) Programme for the Development of Water and Hydroland in the Republic of Moldova for 2011-2020 ;
- 8) Programme for the Creation of the National Ecological Network for 2011–2018;
- 9) Food Safety Strategy for 2011-2015.

In the field of the extension of forest area and forest fund

The main policy document concerning forestry is *The Strategy on Sustainable Development of the Forest Sector in the Republic of Moldova*, approved by DPRM no. 350-XV of 12.07.2001, with the main goal -expanding the forest lands of the Republic of Moldova to a share of 15 percent of the national territory by 2020. This index will be achieved by further afforestation of about 130 000 ha.

In order to encourage the creation of the private forest fund, within the National Action Plan FLEG and the Programme ENPI / FLEG, were elaborated recommendations on the new structure of the Forest Code, which contains a special chapter "Administration and management of the forest fund private property". At the same time, recommendations to the Regulation on forest regime in the communal and private forests were elaborated.

The Agency "Moldsilva", with the support of the World Bank, elaborated in 2012 the project "Forestry Institutional Reform Strategy in Moldova" with the general goal to reform the forestry sector in order to increase its contribution to the improvement of the quality of life, based on a sustainable and efficient management of the forests. The expected result of the implementation of the Strategy is a clear division of legislative and control functions from forest management functions. Also, the Agency "Moldsilva", by the order no. 90 from 04.04.2012, approved the Technical norms regarding the ecological reconstruction of forest stands, which provide for methods and technologies on restoration, replacement and improvement of forest stands, which are low productive, derived, degraded and inappropriate to the environmental conditions.

In order to ensure the conservation of the biodiversity, the National Ecological Fund allocated financial resources in order to stop landslides and erosion processes, to afforest the degraded lands, to elaborate the project documentation for liquidation of flood consequences and protection measures against them. In 2010 were allocated 45.4 million lei, in 2011 - 41.0 million lei, and in 2012 - 36.0 million lei.

On degraded lands, managed by mayoralities, in 2010-2012 were planted about 800 ha of forest plantations, 42 ha of protective forestry strips of agricultural fields and 47 ha of protective forestry strips of water resources.

There were elaborated new project proposals that will be presented at GEF and European Union for financing.

New project proposals to be promoted at GEF and European Union

- 1) Joint program EU/ Council of Europe on the establishment of Emerald Network under the Bern Convention, phase II (2012-2016), about 100 000 Euro for 4 years ;
- 2) UNDP-GEF project "Integration of the biodiversity conservation priorities in the spatial planning policies and land use practices in Moldova". Project duration: 4 years (2014-2018), Project Budget: \$ 1,000,000 (GEF);
- 3) The project "Consolidation of the nature protected areas' network for biodiversity protection and sustainable development in the Danube Delta and Lower Prut river region – PAN Nature" in the Joint Operational Programme on foundation of the tripartite Biosphere Reserve "Danube Delta-Lower Prut"

The main achievements in the field of the sustainable management and protection of natural habitats during the last three years are the following:

- 1) There is created a legislative and normative framework, which provides the obligations of the institutions responsible for the sustainable management of natural habitats;
- 2) There are elaborated the legal mechanisms of drafting the cadastre and of monitoring the objects of the protected areas, animal and vegetal kingdom;
- 3) There is established the way of organizing the state and departmental control over the implementation of the provisions of legislative and normative acts in the field of natural areas protected by the state;
- 4) The Republic of Moldova has ratified the main international treaties on the protection and conservation of biodiversity.

In order to ensure the measures to stop the degradation and fragmentation of the natural ecosystems, in the last three years were taken the following actions:

- 1) Approved the Governmental Decision on establishment of the Governmental Commission for the expansion of the areas with forest vegetation (DGRM № 872 of 19.11.12);
- 2) Approved the National Plan for expansion of forest vegetation areas for the years 2013 – 2018, which aims at protecting the environment and natural resources, expanding the areas with forest vegetation, improving the degraded lands, restoring the protection strips of rivers and water basins. The National Plan provides for the expansion of the areas with forest vegetation with 13 041 ha on the lands with natural fertility of less than 40 degrees;
- 3) Approved the Regulation on pasturing and mowing (DGRM № 667 of 23.07.2010);
- 4) Signed the memorandum of cooperation between the Ministry of Environment, the Agency "MoldSilva" and the Academy of Science in the field of forestry, biodiversity conservation and management of natural areas protected by state (2012);
- 5) On 8 June 2012 was signed the Agreement between the Republic of Moldova and Switzerland on the elaboration of secondary legislation according to the Water Law № 272 of 23.12.2011;

- It was elaborated and published in 2011 the management plan for the Ramsar areas “Lower Prut” and „Unguri-Holoșnița”; the management plan for the area "Lower Nistru", performed with the assistance of WWF and EU programs “Agro-environmental measures for conservation”, in collaboration with IUCN, financed by the Government of Norway; “Development of the National Ecological Network of Moldova as part of pan-European ecological network with a focus on cross-border cooperation” (2009-2011) in collaboration with IUCN and financed by the Government of Norway, etc.

- Within the project Climate Forum East (Red Cross), financed by the European Commission and the Austrian Development Agency, was assessed the vulnerability and were elaborated adaptation measures of agriculture, biodiversity and public health to climate change in the region. In order to solve the project objectives, it was founded a network of civil society organizations of Moldova.

- Within the projects supported by WWF Romania, it was elaborated the study on the vulnerability of the Danube Delta to climate change and is elaborated a consolidated strategy (Romania, Moldova and Ukraine) on adaptation of the region to these changes. It was made the Declaration for the public local authorities on their support in the implementation of climate change adaptation measures in the region and the cooperation of countries in this field.

Main achievements in international collaboration

- 1) Signing on November 29, 2012, in Rome, Italy, the Agreement between the Government of the Republic of Moldova and the Cabinet of Ministers of Ukraine on cooperation for the protection and sustainable development of the Basin of Nistru River;
- 2) Approving the Intergovernmental Political-Scientific Platform on Biodiversity and Ecosystem Services (IPBES), signing the documents in Panama (April 2012);
- 3) Ratification of the Agreement between the Government of the Republic of Moldova and the Cabinet of Ministers of Ukraine on cooperation for the protection and sustainable development of the Basin of Nistru River;
- 4) Ratification of the Agreement between the Government of the Republic of Moldova and the Government of Romania on cooperation for the protection and sustainable use of water resources of the Prut and Danube; (...).

In the Republic of Moldova, biodiversity conservation still is an acute problem also because of the fact that in the last two decades has been revealed a strong expansion of invasive species. In Moldova, are organized some scientific researches in the field. However, the problems regarding the assessment of the risk on natural ecosystems and native biodiversity are at the initial stage. In 2013 the Ministry of Environment, from sources of the National Environmental Fund, began financing a project related to the examination of the impact of invasive species. Invasive species need to be studied and taken under control, because many of them are potentially hazardous to the environment and human health. According to the project, the Strategy on Combating Invasive Alien Species (IAS) is going to be developed.

In this period a set of actions on the improvement of the state of the protected areas fund (PA) were carried out:

- 1) The fund of natural protected areas was recently expanded up to 5.61% of the country by founding the Orhei National Park with an area of 33 700 ha (Parliament Decision no. 201 of 12.07.2013), which will significantly contribute to the protection of biodiversity;
- 2) Tripartite meetings in order to found the Danube Delta Biosphere Reserve involving Romania, Moldova and Ukraine were organized;
- 3) The National Fund for Regional Development allocated financial resources of 24 million lei for the restoration of the landscape reserve Țaul Park, which revived the work in the field;

- 4) The Emerald Network Programme was developed as part of the Pan-European Ecological Network;
- 5) The surface of the natural areas protected by the state with representative sectors of steppe from the Bugeac zone was extended on the basis of GD no. 1030 of 2011;
- 6) During the period 2009-2013, with the support of UNDP-GEF project, the assessment of the fund of natural protected areas was carried out (470 natural areas with a surface of 195587.67 ha), NPA's maps were elaborated, the list of the species characteristic of each NPA was made, recommendations on improving the FNPA were proposed, the Orhei National Park was founded. As a result of the investigations, 12 plant associations were described and 700 species of vascular plants were registered, including 51 rare species, a species included in the Annex of the Berne Convention, and 26 species included in the Red Book of the Republic of Moldova, from animals, 11 species of amphibians, 10 species of reptiles, 109 species of birds and 41 species of mammals were identified.
- 7) The National Programme for the Creation of the National Ecological Network for 2011-2018, was approved by Government Decision no. 593 of August 1, 2011, which is a objective of implementation of the Law no. 94-XVI of April 5, 2007 on the ecological network.

The activities on increasing the public awareness on biodiversity conservation are achieved through:

- 1) The Promotion of the Campaign "International Decade of Biodiversity" 2011-2020, launched by the UN and supported by the Convention on Biological Diversity;
- 2) The launch of the campaign on raising the public awareness, especially at local level, on the importance of biodiversity conservation "Biodiversity Caravan", in 2013;
- 3) The organization and the annual celebration of special events on biodiversity conservation (International Day for Biological Diversity, World Wetlands Day, Danube Day, Nistru Day, International Day of Forests, International Bird Day, European Day of Parks etc.) and placing of information on specialized sites of public institutions);
- 4) Ensuring an appropriate organization and participation of civil society in national actions ("A Tree for Our Future", "Water - a Source of Life", "Clean River from Village to Village", "Clean Air for All", "Salubrity Season" etc.)
- 5) In 2010, the Republic of Moldova along with other UN member states participated in the events concerning the celebration of the "International Year of Biodiversity".
- 6) The republican contests: "The most green, landscaped and clean village", "The best environmental publications" etc. and specialized exhibitions at "MoldEco" are organized annually.
- 7) The elaboration of the project Strategy on ecological education, communication on the benefit of biodiversity conservation, support of the civil society and local authorities.

Ecological education is also promoted by the activities of about 70 NGOs in the field of environmental protection: National Association of the Scouts of Moldova, socio-ecological project "Hai Moldova" the transboundary project "Ecological park-model of environmental education".

Within the general, vocational and higher education institutions are organized: ecological circles, local and republican Olympiads on Ecology, National Contest of Ecology, Ecological Festival, Summer Camps "Young Ecologist", "Young Fisherman", etc.

Q11. How the measures of implementing the Convention in the Republic of Moldova have contributed to the realization of the relevant targets of the Millennium Development Goals, scheduled for 2015?

The implementation of the Millennium Development National Goals is a difficult challenge for Moldova. Since the signing of the Millennium Declaration in 2000, the country has made some progress

in raising human welfare, economy, governance and ecosystem management in order to achieve the national objectives by 2015.

One of the objectives of the Millennium Development Goals in Moldova is to ensure environmental sustainability (Millennium Development Goal 7-MDG7) with its four targets:

Target 1. Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources, to increase the afforestation degree from 10.3% in 2002 to 12.1% in 2010 and 13.2% in 2015.

Target 2. Increase the proportion of protected areas for biological diversity conservation from 1.96% in 2002 to 4.65% in 2015.

Target 3. Increase the proportion of population with access to safe water sources from 38.5% in 2002 to 59% in 2010 to 65% in 2015.

Target 4. Increase the share of population with access to improved sanitation facilities from 31.3% in 2002 to 50.3% in 2010 and 65% in 2015.

The final target is reached solely in connection with the natural areas protected by the state (Table 1), but, sufficient financial and human resources to elaborate the management system and to ensure the maintenance and compliance with their regime of protection are not allocated.

The significant progress in achieving this goal involves the necessity of medium-term maintenance of the natural areas that are already protected by the state and the prevention of their degradation.

Thus, it is important to increase not only quantitatively but also qualitatively the respective areas, since the declaration of an area as a protected area implies performing a series of related actions, such as the allocation of the necessary financial and human resources for maintenance and protection.

The positive results are conditioned by a number of factors: support of environmental protection projects by the development partners of the country, the inclusion of environmental actions in the Government Program 2009-2012, the implementation of environmental projects by government agencies, academic sector and nongovernmental organizations etc.

The forest land area has increased by only 0.2% compared to 2006 and the intermediate target has not yet been reached. In comparison with other countries, the Republic of Moldova notes very low indices regarding the forest resources. The share of the area covered with forests is one of the lowest in Europe.

Q12. What lessons have been learned through the implementation of the Convention on Biological Diversity in the Republic of Moldova?

The Republic of Moldova is in a transition period to a market economy, characterized by profound reforms and a recovery of economic activities in all the sectors of national economy.

Moldova is considered one of the poorest countries in Europe and more than 25% of the population lives below the poverty line (World Bank, 2012). According to the International Fund for Agricultural Development (IFAD, 2012) about 42 percent of the rural population of Moldova is affected by poverty.

Rural poverty affects in particular biodiversity. People need food, fuel and other natural resources for survival.

Currently, threats to biodiversity arise at all levels, from the actions of institutions and local factors to individual behavior. In Moldova, threats to biodiversity, also come from the past management regime of natural areas and the conversion of many of them into the category of agricultural lands without the due consideration of the sustainability of these resources.

The reduction of the impact on biodiversity didn't succeed in recent years, especially at ecosystem, species and population level and therefore the preservation of biodiversity has become a very acute need.

In the Republic of Moldova, there has always been a socioeconomic interest for the conservation of the valuable biological diversity, an interest initiated and supported by various specialists. The conservation and protection of nature is achieved primarily through the declaration and establishment, at national level, of a network of protected areas of different categories.

With the exception of the large agricultural areas and some terrestrial and aquatic ecosystems, which are under the negative impact of pollution sources, where are registered changes in the structure and dynamics of biodiversity, the rest of the natural environment, especially of the forest fund, is maintained in natural parameters, providing the necessary conditions for the conservation of the specific biodiversity.

Because of the lack of implementation of the integrated monitoring system which would include the monitoring of biodiversity, there is no concrete data on the basis of which to make areal analysis of its condition, except for some wild species that are objects of programs and research projects of universities, museums, research institutes, as well as non-governmental organizations.

For the effective protection of biodiversity and habitats, the promotion at local level of a unique policy, with the involvement of all the existent resources, including the institutional framework, the non-governmental sector, financial and human resources is of a special importance.

The promotion of a policy on biodiversity conservation at the local level shall include the compliance with the standards and norms of the environment quality, the reduction of its pollution level by economic agents, making efficient the production process by implementing environmentally friendly technologies and the realization of some actions that do not require additional financing, encouraging and implication of producers in actions of restoration of the environment and habitat protection, ecological education of the population, providing public access to information on biodiversity and ensuring the participation of the population in decision-making in the field.

The implementation of programs related to the foundation of the national ecological network, expansion of protective strips, the protection of wetlands and protection zones of the rivers, the minimization of the negative impact caused by the economic activities and other actions of this type are the main tasks of these sections for environmental protection and management of natural resources of the local councils.

In the application of economic mechanisms, the development and implementation of economic incentives, differentiated taxes and non-polluting technologies are of priority. Problems concerning the biodiversity research and monitoring, the gene pool and biological security were addressed in various scientific and technical programs, but their implementation and the interpretation of their results is poor.

The biodiversity of the Republic of Moldova is not fully monitored. The institutions of the Academy of Sciences have carried out some researches on spontaneous vegetation and wildlife, but these researches are limited and occasional, because they lack adequate financial support.

The Agency "MoldSilva" performs the monitoring of forests. The specialists of scientific reserves, in collaboration with scientific organizations, carry out certain monitoring works on biodiversity, but these actions do not meet the requirements of an integrated and efficient monitoring.

The exchange of information and the existing system of public education and teacher training on the protection of biodiversity meets only partially the requirements of this sphere.

There is a shortage of personnel in the field of biodiversity, forestry, fishery, hunting, environmental monitoring, etc.

The Convention on Biological Diversity goals are known in the Republic of Moldova. In order to achieve the first two goals - conservation of biological diversity and sustainable use of biological resources - actions are promoted by the Ministry of Environment, other central authorities, the Academy of Sciences of Moldova, local authorities, non-governmental organizations, etc. To the third goal - fair and equitable sharing of benefits arising from genetic resources - is devoted less attention, yet. Regarding the purpose and tasks set for 2020, they are known only to specialists.

In conclusion we mention:

1. The legal and institutional framework on biodiversity conservation in the Republic of Moldova has been developed over the last years and corresponds to the current exigencies, but the implementation of the legislation requirements is slow;

2. The process of integration of biodiversity conservation requirements in the economic sectors is at an early stage and this field doesn't receive the necessary attention;

3. The biodiversity of Moldova is rich at all levels: genetic, population and species, but this biodiversity cannot ensure the stability of natural ecosystems because of its high degree of degradation and its vulnerability to anthropogenic factors (agriculture, forestry, invasive species);

4. During 2002 – 2013, the decline of populations of wild flora and fauna species, which resulted in increasing the number of endangered species, was not stopped;

5. The Fund of natural areas protected by state has been expanded with 3.65% and constitutes 5.61% of the country, but some measures are necessary in order to ensure the compliance with the law in this field;

6. The level of scientific research on biological diversity has increased considerably in terms of quantitative and qualitative indicators, but the scientific research units are insufficiently ensured with scientific equipment. The implementation of advanced technologies in the field, based on Technology Transfers, is at an early stage;

7. The biological management is performed only in the scientific reserves. Works on rapid assessment of protected natural areas were carried out and works on establishing the "zero" level in some protected areas began;

8. The probable impact of climate change on the flora and fauna of the Republic of Moldova has been assessed; the strategies on adaptation of the biodiversity and of the economic sectors to climate changes are being elaborated;

9. The reduced financial allocations and the modest participation of the national and international organizations in the activities on biodiversity protection are the reasons of the slow implementation of the Biological Diversity Conservation National Strategy and Action Plan;

10. There are serious impediments to the sustainable management of protected areas system, which stood out during the last years:

- The insufficient institutional capacity to ensure the management and the protection of natural protected areas and biodiversity.
- The poor implementation of the environmental legislation, including in the field referred to.
- The lack of financial support for the proper management of natural protected areas and biodiversity conservation.
- The lack of database, of records and of cadastre of natural areas protected by the state, of plant and animal kingdoms.

- The insufficient and inefficient collaboration of the central and local authorities on the creation and effective management of the natural areas protected by the state.
- The regime of the protected areas is partially respected; the protected areas do not have management and monitoring plans.

In the Republic of Moldova the measures on implementation of the Convention, and in particular, of the objectives on conservation and sustainable use of biodiversity of the Strategic Plan Aichi for 2011-2020, facilitate the further implementation of the relevant targets of MDG 7 and, for this purpose, the main Millennium Development Actions, concerning the Biodiversity Conservation, are included in the project of the National Environment Strategy of the Republic of Moldova for 2014 -2024 and the National Strategy and Action Plan on Biodiversity Conservation for 2013 – 2020.

The National Report is a call to action. It aims to promote the actions of citizens for the benefit of the present and future generations. There is a hope that the report will generate discussion about the importance of the Biological Diversity Conservation in Moldova, offering a comprehensive review of the policies and recommendations on managing and minimizing of the adverse effects on natural ecosystems, the maximum increase of opportunities of ecosystem services and other benefits for preventing the degradation of biodiversity and mitigation of the consequences of climate change on human development. The report highlights the areas, where action is needed in order to stop the degradation of biodiversity and explains the implications for national and sectoral development policies. Also, the study convincingly demonstrates the best practice and experience in the fields presented in the Report.

The List of Environmental Policy Documents

1.	National Action Plan to Combat Desertification	2000, GD 367/ 13.04.2000
2.	Concept of sustainable development of the localities of the Republic of Moldova	2001, GD 1491/ 28.12.2001
3.	Biological Diversity Conservation National Strategy and Action Plan	2001, PR 112-XV/ 27.04.2001
4.	Strategy on Sustainable Development of the Forest Sector in the Republic of Moldova	2001, PR 350-XV / 12.06.2001
5.	State Programme on regeneration and afforestation of forest fund lands for 2003-2020	2003, GD 737/ 17.06.2003
6.	National Strategy on reduction and elimination of persistent organic pollutants in the Republic of Moldova	2004, PR 1155/ 20.10.2004
7.	Moldova – European Union Action Plan, 2005	2005, GD 356/ 22.04.2005
8.	Individual Partnership Action Plan (IPAP) between NATO and Republic of Moldova	2007, GD 774/ 06.07.2007
9.	National Programme on Ecological Security for 2007-2015	2007, GD 304/ 17.03.2007
10.	Health System Development Strategy for 2008-2017	2007, PR 1471/ 24.12.2007
11.	Communication Strategy for the European Integration of the Republic of Moldova	2007, PR 1524/ 29.12.2007
12.	Stabilization and Recovery Programme of the Republic of Moldova for 2009-2011	2009, PR 790/ 01.12.2009
13.	National Strategy for Regional Development	2010, PR 158/ 04.03.2010
14.	The technical concept of the automated information system "State Geological Register"	2010, PR 1003/ 23.10.2010
15.	Government Action Plan for 2011-2014	2011, GD 179/ 23.03.2011
16.	National Human Rights Action Plan for 2011-2014	2011, PR 90/ 12.05.2011
17.	National Security Strategy of the Republic of Moldova	2011, PR 153/ 15.07.2011

18.	National Programme for the creation of the National Ecological Network for 2011 – 2018	2011, GD nr 593/ 01.08.2011
19.	National Programme for Conservation and Enhancement of Soil Fertility for 2011-2020	2011, GD 626/20.08.2011
20.	National Energy Efficiency Programme 2011-2020	2011, GD 833/10.11.2011
21.	Open Government Action Plan for 2012-2013	2012, 195/04.04.2012
22.	Government Action Plan for 2012-2015	2012, 289/07.05.2012
23.	National Programme on informatization of the cultural sphere for 2012-2020	2012, GD 478/ 04.07.2012
24.	Strategy for the Development of Rural Extension Services in the Republic of Moldova for 2012–2022	2012, GD 486/ 05.07.2012
25.	National plan on extending the forest vegetation areas for 2014-2018	2014, GD 101/10.02.2014

Information on Projects Funded from External Sources of the Ministry of Environment in Domains Tangent to Biodiversity

No	Project name	Project objective	Implementation period	Donor	Budget (total approved)	Type of assistance (TA/grant/credit)
1	Monitoring of surface water and flood protection in the Prut river basin	Consolidation of the hydrological monitoring on the transboundary river Prut, that will allow the State Hydrometeorological Service specialists to monitor the evolution of the water conditions of the river and to ensure the central and local public authorities, economic agents and population with operative information, forecasts and warnings of possible floods.	2010-2012	Czech Republic Government	20 711 891 CZK (14 092 370 MDL)	Technical assistance
2.	Institutional Strengthening for the Implementation of the Montreal Protocol in Moldova Phase - VI	<ul style="list-style-type: none"> - Strengthening the institutional capacities to ensure the implementation of the commitments made by the Republic of Moldova concerning the gradual phase-out and removal from use of ozone depleting substances (ODS) under the Montreal Protocol - Total removal from use of virgin chlorofluorocarbons (CFCs) (until 01.01.2010) by the improvement and implementation of combined activities of the project: investment, training, technical and legislative / management support - Creation of the institutional infrastructure to 	2010 – 2012	Multilateral Fund for the Implementation of the Montreal Protocol	69,334	Technical assistance

		ensure the gradual phase-out of ozone depleting substances (CFC) after 2010				
3.	Improving coverage and management effectiveness of the Protected Area System in Moldova	Developing a efficient framework for the expansion of the PAS to include under-represented ecosystems (1) Improving the representativity and coverage of the Protected Areas System (2) Strengthening the capacity to effectively manage the Protected Areas System	2009-2013	UNDP-GEF	950 \$ SUA	Grant
4.	Project on the elaboration of the Biological Diversity Conservation National Strategy and Action Plan of the Republic of Moldova for 2013-2020	Integration of the Republic of Moldova bonds concerning the realization of the requirements of the Convention on Biological Diversity in economic sectors through a renewed and participatory planning process in the biodiversity domain, under global guidelines outlined in the Strategic Plan 2011-2020	2012-2014	UNDP-GEF	222 000\$ SUA	Grant
5.	Water Sector Policy Support Programme	Strengthening the efforts of all the participants in the water supply and sanitation sector with the purpose of solving more efficiently the problem of water supply and sanitation of the localities, including: The implementation of the project “Rehabilitation of the water supply system in the district Nisporeni: Mayoralities of Nisporeni, Varzaresti and Grozesti” by the reconstruction of the water supply complex „Prut – Nisporeni”.	2009-2015	European Comission EU – 5,0 mil. Euro, Austrian Development Agency (ADA) – 3,5 mil. Euro, Swiss Agency for Development	45 mil Euro 11,3 mil. Euro	Grant Grant

				and Cooperation – 0,8 mil. Euro,		
6.	Regional Development and Social Protection Project, Part D	(I) Improving the sanitary hygiene quality and services in the city Orhei; (II) Reducing the discharges of pollutants, including nutrients, which come from municipal sources of Orhei, which are discharged into the river Raut and eventually can reach the Black Sea; (III) Demonstration and determination of the effective cost technologies for nutrient reduction from municipal wastewater sources	2009 – 2012	European Commission	2.837.161.00 Euro	Grant
7.	Irrigation Sector Reform (ISR) from the Project “Transition to High-Value Agriculture” of the Compact Programme	ISR includes 2 Sub-activities : - Irrigation Management Transfer – aimed at supporting the creation of Water Users Associations, able to manage and ensure the effective functioning of irrigation systems. - River Basin Management - focused on improving government's ability to manage water resources.	2010 - 2015	USA Government by the Millennium Challenge Corporation	262 mil \$, for RSI-102 mil \$	Grant
8.	Global project "Continuous improvement of institutional	In 2011, it was organized the first seminar-training lasting three days on 27-29 September 2011. The seminar-training was conducted by	2011 – 2012	UNEP-DELG-GEF	10.000 USD	grant

	capacities for effective participation in the Biosafety Clearing-House (BCH)''	two regional consultants for BCH: Dr. Aleksej Tarasjev (Serbia) and Ms. Vida Marlot (Slovenia).				
9.	Disaster and Climate Risk Management in Moldova	The objective of development of the project is to strengthen the State Hydrometeorological Service's ability to forecast severe weather and improve Moldova's capacity to prepare for and respond to natural disasters.	2010 – 2014	IDA/World Bank	10 000 000 USD, incl. the Component A (SHS) – 4 800 000 USD	credit
10.	Biogas Generation from Animal Manure	To support the Government of RM in developing alternative energy sources to ensure the largest possible autonomy regarding the energy security of the country. Promoting the transfer of new technologies for environmentally-sustainable renewable energy sources due to the use of stable manure biogas for heating and electricity production at farm level	2011 -2014	GEF/WB	88 900 USD	Grant

List of Legislative and Normative Acts Implemented in the Republic of Moldova with Tangency on Biodiversity

1. Forest Code
2. Land Code
3. Code on Subsoil
4. Law on plant kingdom
5. Law on accepting the Amendment to the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters
6. Law on Zoological gardens
7. Law on the protection of animals used for experimental and other scientific purposes
8. Law on fish stock, fishing and fish farming
9. Law on the Red Book of the Republic of Moldova
10. Law on ratification of the Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes, signed on 10.03.2000
11. Law on organic food production
12. Law on botanical gardens
13. Law on adherence of the Republic of Moldova to the Kyoto Protocol to the United Nations Framework Convention on Climate Change
14. Law on ratification of the Agreement on Cooperation in the field of active actions on meteorological processes and other geophysical processes
15. Law on ratification of the Cartagena Protocol on Biosafety to the Convention on Biological Diversity
16. Law on Biosafety
17. Law on access to information
18. Water Law
19. Law on improvement of degraded lands through afforestation
20. Law on public property lands and their delimitation
21. Law on adherence of the Republic of Moldova to some international environmental acts
22. Law on Industrial Safety of Hazardous industrial installations
23. Law on tourism
24. Law on walnut
25. Law on plant protection
26. Law on international treaties of the Republic of Moldova
27. Law on green spaces of urban and rural localities

28. Law on licensing of certain types of activity
29. Law on potable water
30. Law on the fund of natural areas protected by the state
31. Law on environment pollution payment
32. Law on hydrometeorological activity
33. Law on production and consumption waste
34. Law on protection of atmospheric air
35. Law on regime of hazardous products and substances
36. Law on natural resources
37. Law on ecological expertise and environmental impact assessment
38. Law on spatial and urban planning
39. Law on secondary material resources
40. Law on zones and strips for rivers and water basins protection
41. Animal kingdom law
42. Law on environmental protection
43. Law on accepting the Amendment to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), adopted in Gaborone, Botswana, on April 30, 1983
44. Decision for supplementing the Regulation regarding authorization of activities connected with trials, production, use and distribution of GMOs
45. Decision regarding the national contest "The most modern, landscaped and cleanest locality"
46. Decision on approving the Framework Regulation on the wetlands of international importance
47. Decision on approving the Regulation on special use of the objects included in the Red Book of the Republic of Moldova
48. Decision on the implementation of the State Programme on regeneration and afforestation of the forest fund land for the period of 2003-2020, approved by the Governmental Decision nr. 737 from 17.06.2003
49. Decision on the implementation of the National Programme on Ecological Security
50. Decision on approving the Regulation on State cadastre of the animal kingdom
51. Decision on approving the Regulation on authorization of cutting in the forest fund and forest vegetation out of the forest fund
52. Decision on the establishment of the National Commission for the Implementation of the United Nations Framework Convention on climate change and the mechanisms and provisions of the Kyoto Protocol
53. Decision on approving the Regulation regarding authorization of activities connected with trials, production, use and distribution of GMOs
54. Decision on approving the Regulation on natural and anthropologically created protected areas
55. Decision on approving the Framework Regulations on National Parks, Natural Monuments, Resources and Biosphere Reserves

56. Decision on approving the Framework Regulations on Multi-Functionally Managed Areas, Framework Regulations on Natural Reserves, Framework Regulations on Landscape Reserves, and Framework Regulations on Monuments of Landscape Architecture
57. Decision on approving the Framework Regulation on Botanical Gardens, Framework Regulation on Dendrological Gardens, Framework Regulation on Zoological Gardens, Framework Regulation on Scientific Reserves.
58. Decision on approving the Regulation of Cadastre of Objects and Complexes of the Fund of Natural Areas Protected by the State
59. Decision on approving the Regulation regarding Public Participation in Environmental Decision Making.

**Legislative and Normative Acts
on Biological Diversity Conservation
and Management of Natural Resources Approved in 2010 - 2014**

2010

1. Law № 131 of 23.12.2009 on amending and completing some legislative acts (Forest Code, Law on green spaces of urban and rural localities, Law on Local Public Administration)
2. Law № 20-XVIII of 04.03.2010 on amending and completing the art.21 of the Law on ecological network
3. DGRM № 667 of 23.07.2010 on approving the Regulation on pasturing and mowing
4. DGRM № 721 of 10.08.2010 on regulation of hunting in the hunting season 2010-2011
5. DGRM № 838 of 18.09.2010 on approving the draft Law on amending and completing some legislative acts (amending the Law on animal kingdom № 439-XIII of 27.04.1995 and the Law № 1538-XIII of 25.02.1998 on the fund of natural areas protected by the state) elaborated according to the Law № 117-XVIII of 23.12.2009 regarding the accession of the republic of Moldova to the Treaty establishing the Energy Community and provisions of the EU Directive № 2009/147/CE on the conservation of wild birds
6. DGRM № 609 of 05.07.2010 on approving the amendments and completing of some decisions of the Government (Regulation regarding the establishment, registration, completing, storage, export and import of animal and plant collection of flora and fauna, approved by DG № 1107 of 1.09.2003; Regulation regarding authorization of activities connected with trials, production, use and distribution of GMOs, approved by DG № 1153 of 25.09.2003), Annexes № 1 and № 2 to the DG № 888 of 6.08.2007 on authorizing fishing in natural water bodies.

2011

1. Law № 61 of 01.04.2011 on amending and completing some legislative acts (MO № 86(3882) of 24.05.11, on amending the Law on animal kingdom № 439-XIII of 27.04.1995 and the Law № 1538-XIII of 25.02.1998 on the fund of natural areas protected by the state) elaborated according to the Law № 117-XVIII of 23.12.2009 regarding the accession of the republic of Moldova to the Treaty establishing the Energy Community № 117-XVIII of 23.12.2009 and provisions of the EU Directive on the conservation of wild birds
2. National Programme for the creation of the National Ecological Network for 2011 – 2018 (DGRM № 593 of 01.08.2011).

2012

1. Law № 36 of 7.03.2012 on amending and completing the Law № 440-XIII of 27.04.1995 on zones and strips for rivers and water basins protection (the Conclusion to the Law, Parliament Initiative, was elaborated and promoted by NRBD)
2. DGRM № 606 of 15.08.2012 on regulation of hunting in the hunting season 2012-2013.

2013

1. DPRM № 201 of 12.07.2013 on foundation of the Orhei National Park (M.O. № 182-185 of 23.08.2013)

2. Law № 200 of 12.07.2013 on amending and completing the Law № 1538-XIII of 25.02.1998 on the fund of natural areas protected by state – completing the annexes of the law with information about the Orhei National Park (M.O. № 182-185 of 23.08.2013)
3. Law № 162 of 28.06.2013 on amending and completing the Law № 1102-XIII of 6.02.1997 on natural resources (amendment of the annex №1) (M.O. № 182-185 of 23.08.2013)
4. Law № 167 of 05.07.2013 on amending and completing the annex № 11 to the Law № 1538-XIII of 25.02.1998 on the fund of natural areas protected by state – change of the administrator of the Țaul Park (M.O. № 186 of 24.08.2013)
5. DGRM № 597 of 13.08.2013 on regulation of hunting in the hunting season 2013-2014
6. DGRM № 651 of 2.09.2013 on approving the Conclusion to the draft law on amending and completing some legislative acts, presented as a legislative initiative by deputies of the Parliament
7. DGRM № 754 of 3.09.2013 on approving the Conclusion to the draft law on amending and completing some legislative acts
8. DGRM № 762 of 23.09.2013 on approving the draft law on the amending and completing some legislative acts (selection hunting)
9. DGRM № 763 of 23.09.2013 on approving the Regulation on State cadastre of waters and the abrogation of a government Decision
10. DGRM № 775 of 04.10.2013 on the hydrographic basins and sub-basins districts' boundaries and special maps where they are determined
11. DGRM № 779 of 04.10.2013 on approving the Regulation on the drought management planning
12. DGRM № 802 of 09.10.2013 on approving the Regulation on the conditions for discharge of wastewater into water bodies
13. DGRM № 807 of 16.10.2013 on approving the Regulation on the use of surface water for irrigation, fishing and other purposes
14. DGRM № 866 of 01.11.2013 on approving the Regulation on the procedure of elaboration and review of the Management Plan of the river basin district
15. DGRM № 867 of 01.11.2013 on approving the Regulation on the constitution and functioning of the Committee of the river basin district
16. DGRM № 836 of 29.10.2013 on approving the Regulation on prevention of water pollution from agricultural activities
17. DGRM № 881 of 29.10.2013 on approving the Methodology for the identification, delineation and classification of water bodies
18. DGRM № 887 of 11.11.2013 on approving the Regulation on the elaboration of the plan for flood risk management
19. DGRM № 890 of 12.11.2013 on approving the Regulation on the environmental quality requirements for surface water
20. DGRM № 931 of 20.11.2013 on approving the Regulation on the requirements for groundwater quality
21. DGRM № 932 of 20.11.2013 on approving the Regulation on the monitoring and record keeping of the state of surface water and groundwater
22. DGRM № 950 of 25.11.2013 on approving the Regulation on the requirements of the collection and treatment of wastewater in urban and rural areas
23. DGRM № 949 of 25.11.2013 on approving the Regulation on the sanitary protection areas.

2014

1. DGRM № 101 of 10.02.2014 on approving the National Plan on extending the forest vegetation areas for the years 2013 - 2018

List of Bilateral/Multilateral Agreements and Protocols Implemented in the Field of Environment

No	Name of the Agreement / Protocol	Signed
1.	Agreement between the Government of the Republic of Moldova and the Government of Israel on cooperation in the field of environmental protection	May 14, 2012, Jerusalem
2.	Agreement between the Ministry of Environment of the Republic of Moldova and the Ministry of Environment of the Republic of Estonia on cooperation in the field of environmental protection	October 19, 2011, Tallinn
3.	Agreement between the Government of the Republic of Moldova and the Government of Romania on cooperation for the protection and sustainable use of water resources of the Prut and Danube	June 28, 2010, Chişinău
4.	Memorandum of understanding between the Ministry of Environment of the Republic of Moldova and the Ministry of Environment and Forests of Romania on cooperation in the field of environmental protection	April 27, 2010, Bucureşti
5.	Agreement between the Ministry of Ecology and Natural Resources of the Republic of Moldova and the Ministry of Natural Resources Environment Protection of the Republic of Belarus on collaboration in the field of environmental protection and sustainable use of natural resources	December 3, 2008, Minsk
6.	Agreement between the Government of the Republic of Moldova and the Government of the Russian Federation on cooperation in the field of environmental protection and rational use of natural resources	February 20, 2008, Moscow
7.	Memorandum on Cooperation and Mutual Assistance in Nuclear and Radiation Safety Matters between the Governments of the Member States of the Organization for Democracy and Economic Development – GUAM	June 19, 2007, Baku

8.	Agreement between the Government of the Republic of Moldova and the Government of the Republic of Azerbaijan on cooperation in the field of environmental protection	February 22, 2007, Baku
9.	Agreement between the Ministry of Ecology and Natural Resources of the Republic of Moldova and the Ministry of Environment of the Republic of Latvia on cooperation in the field of environmental protection	March 17, 2006, Riga
10.	Memorandum on understanding between the Government of the Republic of Moldova and the Government of the Kingdom of Denmark on cooperation for the implementation of Kyoto Protocol of the UN Framework Convention on Climate Change	October 27, 2003, Copenhagen
11.	Agreement between the Ministry of Ecology, Construction and Territorial Development of the Republic of Moldova and the Ministry of Environment of the Republic of Poland on cooperation in the field of environmental protection and rational use of natural resources	October 22, 2003, Chişinău
12.	Agreement between the Government of the Republic of Moldova and the Government of Romania on cooperation for the protection of fish resources and regulation of fishing in the Prut River and in the reservoir Stâncă - Costeşti	August 1, 2003, Stâncă - Costeşti
13.	Agreement between the Ministry of Ecology, Construction and Territorial Development of the Republic of Moldova and the Ministry of Environment and Territory of the Republic of Italy on cooperation in the field of environmental protection	June 27, 2002, Chişinău
14.	Agreement between the Ministry of Environment and Territorial Development of the Republic of Moldova, the Ministry of Water Resources, Forests and Environmental Protection of Romania, and the Ministry of Ecology and Natural Resources of Ukraine on cooperation in the	June 5, 2000, Bucureşti

	Danube Delta and the Lower Prut Natural Protected Areas	
15.	Declaration of ministers of environment of Bulgaria, Republic of Moldova, Romania and Ukraine regarding the Creation of a Lower Danube Green Corridor	June 5, 2000, București
16.	Memorandum on understanding between the Ministry of Ecology and Natural Resources of the Republic of Moldova and the Ministry of Environment and Natural Resources of the Ukraine on Moldovan-Ukrainian cooperation in the field of sustainable use and protection of the Dniester River basin	May 29, 1997, Kiev

