



Sectoral Integration in Kazakhstan

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1. Introduction

Kazakhstan reported¹ that Kazakhstan, as a party of the UN Convention ensures close collaboration of national and sectoral programs, as well as international conventions and agreements for successful execution of its obligations on conservation and sustainable use of biological diversity.

During 2006-2008 Kazakhstan has adopted a number of government documents, aimed at ensuring the environmental sustainability of the national economy, developing new environmental-balanced policy of the government, business and NGOs, enhancing cross-sectoral partnerships: The concept of transition to sustainable development of Kazakhstan up to 2024, the Environmental Code of the RK “On Specially Protected Areas” and others. International environmental conventions, which help to reduce environmental pollution and conserve biodiversity, were ratified.

MEP RK is the central executive body responsible for management, intersectoral coordination in development and implementation of state policy in the sphere of environmental protection and environmental management in the territory of Kazakhstan.

In order to strengthen inter-agency coordination among ministries and agencies in the field of environmental protection the Interdepartmental Commission on stabilization of the environment (hereinafter - Commission) was created and its position was approved by the Decision of the Government of the RK #777 dated 1 August, 2003. The Commission is an advisory body under the Government of the Republic of Kazakhstan. Its membership includes heads of Ministry of Agriculture, MEP, MEMR, KLOH and CWR MA, representatives of MH, MES, AUZR, AS RK. MEP RK is the working body of the Commission.

Information on implementation of the National Plan of the main directions (actions) for the implementation of the annual 2005-2007's messages of the Head of State to people of Kazakhstan and the Program of the Government of the Republic of Kazakhstan for 2007-2009.

2. Biotechnology

For the purpose of execution of the Concept on ecological safety of Kazakhstan for 2004-2015 and the Action Plan on its implementation, a draft of the Law of RK «On ratification of the Cartagena Protocol on Biosafety to the Convention on Biological Diversity» was developed.

The Cartagena Protocol applies to the transboundary movement, transit, handling and use of all living modified organisms, which may have a negative impact on biodiversity.

The Head of State signed the Law of the RK (# 43-IV dated 17.07.2008) “On ratification of the Cartagena Protocol on Biosafety”.

¹ Kazakhstan (2009). The Fourth National Report on Progress in Implementation of the Convention on Biological Diversity, Ministry of Environmental Protection, Astana, 2009, 91 pp.

Kazakhstan recognizes the biological safety as an essential component of the Convention on Biological Diversity. Due to this the Cartagena Protocol on Biosafety is evaluated positively.

Realizing that the development of biotechnology will allow solving a number of industrial-technological, environmental and socio-economic problems, as in the short term, and in the strategic plan, the government adopted and implemented a series of public programs on biotechnology (Development and improvement of biotechnology of saving genetic resources of high-productive breeds of sheep of Kazakhstan and creation of cryo-bank of germplasms; evaluation of biological diversity ex situ collections of local populations of species - congener of wheat, oats, barley tribe Triticeae Dum; Development of Biotechnology on creation of transgenic wheat plants with high photosynthetic activity and productivity basing on genetic engineering techniques, and etc.)

For the agriculture of Kazakhstan, with its many sharply contrasting ecological zones (high-risk farming) biotechnological approaches will play an increasingly important role in the selection process. This is worth noting that, despite the increasing level of development of modern biotechnology, as well as benefits of it, the basis of policies on biosafety in the Republic of Kazakhstan is the adoption of actions aimed at creating an adequate protection of the environment and public health from possible adverse effects, as well as guarantee the safe use of modern biotechnology.

In order to ensure food safety for human life, human health and consumer protection in the territory of the Republic of Kazakhstan the Law of the Republic of Kazakhstan «On food safety» dated 21.07.2007 #301-III ZRK was taken.

16 bylaws and over 20 technical regulations will be developed for implementing this Law. These regulations will be governed by mandatory rules on the security requirements of different types of food, feed and feed additives, agricultural machinery and equipment.

In terms of a system of risk assessment, safety and quality control of agricultural products in accordance with international requirements the Decree of the Government of the Republic of Kazakhstan «On approval of the action plan on creation of a system of risk assessment, safety and quality control of agro-industrial complex in accordance with international requirements» dated 24.09.2007, #828 was approved.

3. Agriculture

Agriculture ministry held a preliminary analysis of measures of state support of agriculture and made recommendations on new mechanisms to stimulate development of agro-industrial enterprises.

As new mechanisms to stimulate development agriculture complex the following measures of state support are recommended.

In order to prevent land degradation, enhance the efficient use of water, vegetation and other natural resources of the country, for improving the rangelands it is offered to develop an action plan on: the organization of territories and the introduction of pasture rotation; the radical and surficial

improvement of low-productive rangelands; development of soil protection crop rotations and pasture rotations, which provide restoration of soil fertility while making optimal use of chemical and biological methods.

In this regard the following is required: an assessment of vulnerability of the territory of Kazakhstan to desertification processes with the mapping of desertification (with improved methods of determination) and land degradation (erosion, salinization, etc.), study and assessment of biodiversity on degraded lands. Implementation of these activities requires a many years' field survey on the basis of large-scale soil, geobotanical, soil reclamation and other surveys and studies.

More than 60% geobotanical surveys were done before 1986. Volume of exploration work performed in recent years is clearly insufficient to maintain the necessary information base in order to conduct a full inventory on quality of soil and forage land. In this respect, extensive use of modern distance methods and technologies in the study and mapping of land, with the use of space survey is required.

4. Water

In order to guarantee water supply and improve water use efficiency, it is necessary to adopt and implement a set of measures for water conservation, rehabilitation of water resources and minimize unproductive water losses in all fields of the economy, introduction of a revolving water supply at industrial enterprises, improve technology and equipment, bringing the ratio of water use per unit of production to the level of developed countries in the world.

For comparison, the ratio of the efficiency of irrigation systems in the Republic of Kazakhstan does not exceed 50%, while in developed countries; it is within 75-80%. Irrigation norms of crops, on average, in the southern areas are 10-12 thousand cubic meters per hectare, and rice – 25-30 thousand cubic meters per hectare. For irrigation of these crops not more than 5 thousand cubic meters per hectare is spent in the developed countries. This shows the large reserves and unused opportunities in water supply for agriculture of the country.

Currently, the Ministry is taking steps to improve the efficiency of water use, for example: the first phase of the project «Regulation of the course of Syr-Darya river and the preservation of the northern part of the Aral Sea - Phase 1 (RRSSAM-1) was implemented in 2008.

Total cost of the project RRSSAM (Phase-1) is 85.79 million U.S. dollars. Financing of the project is being funded at the cost of the World Bank loan (64.5 million dollars) and co-financing from the national budget in amount of 21.29 million U.S. dollars.

The first phase of the restoration of the Aral Sea began in 2002. First, the Aral Sea was divided into northern and southern parts. Then several dams and hydrosystems were reconstructed, Syrdarya river course was strengthened. The main task was completed - a network of modern storage bands to regulate the water level was made.

At the stage of implementation of the project (Phase 1) significant environmental and socio-economic effect was achieved. Thus, with completion of the dam in the northern Aral Sea, in April 2006, the water level raised reaching up to 42.0 meters, additional 870 sq km of dried seabed was covered with water, volume of water in the Small Aral increased to 11.5 km³ and the accumulation of the project volume (27.1 km³) of water, salt water has decreased from 23 to 17 grams per liter. Besides, the effect of industrial fishing will increase from 0.4 to 11.7 thousand tons, while in 2006, the fishing was close to 2.0 tonnes. Also, reserves of local fish species will increase, and favorable conditions for the breeding of sturgeon species will be created.

Due to the reconstruction of hydrosystem Aklak the capacity of the facility increased from 60 to 400 m³ / s; water production in the northern Aral Sea will increase; the area of flooded lake systems will reach 6260 hectares, hayfields - 7000 hectares, erosion of the course of Syr Darya river will be suspended; wetlands and biodiversity of Aral Sea will recover.

Fulfillment of works on the hydrosystem Aitek helped to increase the capacity of the river Syr Darya in the winter period from 300 to 800 m³ / s, increase water supply to 15,3 thousand hectares of irrigated land, the Aral Sea water inflow, stabilize the course of Syr-Darya river and reduce the risk of flooding of Kyzylorda city and rural settlements.

The second phase of the program, the aim of which is preservation and restoration of the Aral Sea will start in 2009. Works are being conducted in collaboration with the World Bank. International structure will provide a loan of 85% of expenses. It is planned to raise the water level of the sea to 46 meters (according to the Baltic system) with sea water summing to the city of Aral, to proceed with the construction of protective dikes in the second phase of the project.

As a result of the second phase the threat of flooding of human settlements will be removed by increasing the capacity of the river up to 700 cubic meters per second. This means that the lake system of the region and the small Aral will be provided with water. In addition, implementation of the project will provide sustainable development of fishing industry and agriculture. As a consequence, this will serve to further improvement of the environment, mitigating the negative impact of the environment and improving the socio-economic situation in the Aral Sea region.

5. State forest fund

Proposals on improving the efficiency of utilization of natural resources

State Forest Fund (hereinafter - SFF) of the RK on the data of the Forest Fund as of 01.01.2008 year is 27,783.0 hectares or 10.2% of the territory of the republic. Land covered by forest takes 12,289.7 ha or 44.2% of the total land area of SFF, forest cover - 4.5%. According to this figure Kazakhstan is referred to forest-poor countries.

The Decision of the Government of the Republic of Kazakhstan dated 23 April 2004, #460 prohibit felling of primary use in saxaul and softwood plantations on sites of State Forest Fund of Kazakhstan for 10 years.

According to article 31 of the Forest Code of the Republic of Kazakhstan, forest resources shall be transferred to forest managers on the area, which does not exceed the area of forestry. When lands of the state forest fund is allocated for logging activities, the forest manager shall have fixed forest felling volumes to provide continuous and sustainable use of wood resources.

Forest resources in lands of state forest fund were transferred for the long-term forest management for timber harvesting in the East Kazakhstan, Kostanai, West Kazakhstan, North Kazakhstan oblasts.

Forest resources in areas of state forest fund in the specified regions were transferred to 88 forest managers for the long-term forest management for timber harvesting in the area of 105,8 thousand hectares with a volume of 361,840 cubic meters.

On the basis of Article 18 of the Forestry Code of the Republic of Kazakhstan, the main task of public institutions of Forestry (hereinafter - state forest owners) is to implement actions on protection, reproduction of forests and forestation.

Felling in the lands of state forest fund by state forest owners is carried out in forestry purposes, i.e. to improve the health of forests and care for them (other fellings), increase productivity, protective and other useful properties of forests (inter - use felling).

In this regard, in volumes of forest fellings of 1709452 cubic meters were approved for state forest owners. Meanwhile 1060653 cubic meters were cut.

Providing local population with fuel wood by state forest owners is carried out at the cost of inter-use cuts and other cuttings.

6. Hunting

The Republic of Kazakhstan has huge potential of natural resources, great variety of species of fauna. 34 species of mammals and 59 species of birds are the object of hunting on the territory of Kazakhstan.

Hunting grounds in the Republic of Kazakhstan take the 243.7 million hectares, 105.7 million hectares (43.3%) of which were assigned to the 608 hunting farms on 1 November 2007, the remaining land is for common use.

The issue on preservation of the unique fauna of Kazakhstan is becoming more important year by year; meanwhile the important meaning is given to the development of hunting farms, in order to attract private capital for the protection and reproduction of animals.

In this purpose a legal base on protection and reproduction of animals was created in the republic. A Law of the Republic of Kazakhstan «On protection, reproduction and use of animal life» (hereinafter - Law) was taken, for implementation of which 30 legal acts were developed and adopted.

During 2004-2005 works on the inter-farm hunting and hunting economics survey in all 14 areas were performed for the first time in the latest 20 years and materials, on which the regional territorial

management of forest and hunting economy, together with the regional executive bodies hold contests to secure the reserve fund of hunting ground. As a result, more than 200 hunting farms were assigned on a competitive basis in 2006-2007.

With the adoption of the Law the system of long-term assigning of hunting grounds from 10 to 49 years was changed. This provision allows hunting users to invest funds and to attract investment in the development of hunting.

Protection of animal life in the hunting grounds was strengthened by hunters' service. Determination of legal status of hunters' service organizations, giving them the right to make protocols on poachers, gave a new direction in ensuring protection of animals.

Steps to streamline the system of accounting of the number of wild animals were taken in 2005. Distribution of animals seizure limits is carried out only on the basis of records of hunting management organizations on assigned hunting grounds, eliminating the previous approval system of limits on hunting animals and in the reserve fund.

7. Fisheries

Committee of the Fish Industry of the Agriculture Ministry continues to reform the industry, transformation of the approach to development of fish resources, introduction of market relations and approximation of them to the requirements of international standards.

According to the results of competitions almost a thousand users of fish resources were assigned 1 466 reservoirs and sites of international, national and local importance for 10 years period during 2006-2007. This is more than 90 percent of their total number. These sites are protected by more than 1 400 rangers fisheries management organizations. This kind of arrangement allows involving the tenants in the development of farms and guarantee access to fish resources for the long term. As a result users have already allocated some 130 million tenge for the activities on reproduction of fish resources, for the research - more than 50, for technical and technological rearmament - one billion 751 million tenge. These figures show that the chosen direction is correct.

With increasing investment in the fishing industry the level of development of the approved limit of fishing has dramatically increased. For example, in 2007 tons were caught 49.2 tons, while the limit was 50.5 thousand. For the first time since getting the independence, the development was 97 percent.

Development Institute - JSC "KazAgroFinance", "Agrarian Credit Corporation" and "The Development Fund for small business" - funded 19 projects in this area in 2006-2007. Loans in amount of more than 2.5 billion tenge were given to enterprises of the fishing industry.

Improving the competitiveness of the industry based on sustainable functioning of fisheries complex at the cost of conservation, reproduction and rational use of water biological resources of natural water reserves, creation of conditions for development of commercial fish farming were identified as the

concept of development of fish farms for 2007-2015 with the purpose of development of fisheries. The objective is to achieve the volume of the cultivation of sturgeon up to 10 thousand tons by 2015.

Experts believe that it is promising to develop aquaculture in Kazakhstan. Commercial fish farms are located in five zones, which allows growing both cold and warm fish species in different areas of the country.

Government Decision #57 dated 25 January 2007, approved the “Republican scheme of acclimatization and growth of fish number in small waters». Along with increase of fish number in major reservoirs, ponds and facilities, water reservoirs and acclimatization and fish number increased objects of small ponds are also identified in the scheme. In addition, funds for development of recommendations on development of commercial sturgeon breeding were allocated in the budget for 2008. Biological ground for construction of new sturgeon plant will be developed. As soon as it is started the prospect of development of one of the important commercial fish breeding will appear.

Fish-reclamation works were held in the Kigach River mouth in 2007 in view of creating conditions for conservation and development of valuable fish species in reservoirs and replenish their fishery stocks. Fish was able to get to spawning and feeding grounds. As part of the budgetary program “Reproduction of fish resources” stocks of fish were replenished by increasing the number of fish in 35 fisheries reservoirs of the country with valuable fish species. Seven million sturgeon, 55 million larvae of carp, 70 million of whitefish, nearly 37 million cyprinids were bred and released.

For improving the efficiency of work of the sector enterprises, equipment amounting to 83 million tenge was purchased. The budget allocated more than 326 million tenge for strengthening of the basis of the regional bodies on protection of fishery resources. Annual studies on the state registration of fish resources and other aquatic animals, as well as inter-state studies of fish stocks of the Caspian Sea were performed.

Currently the draft of the Law of the Republic of Kazakhstan «On amendments and addenda to some legislative acts of the Republic of Kazakhstan on issues of fisheries», developed in accordance with the concept of fisheries development was brought to the Majilis of the Parliament of the Republic of Kazakhstan.

The draft of the Law provides a legal basis for the marine, coastal, recreational, sporting, scientific, reclamation and other types and methods of fishing and other aquatic animals, the improvement of the rules governing the use of animal world, development of aquaculture, as well as more efficient use of water and other natural resources.

In this regard, for the successful development of the fishery it is necessary to create conditions for the development of fishing, fish processing enterprises.

8. Forestry

One of the main tasks in the field of environment protection and nature management is increasing the forest area, preservation and rational use of flora and fauna.

Due to this specialized program on greening the country was developed. It identifies the main objectives and tasks to increase tree-planting activities, planting of settlements, and ultimately increase of the forest area with the involvement of youth in these processes.

"Zhasyl el" program for 2005-2007 (Decision of the Government of the RK dated 25 June 2005 #632) has been developed in pursuance of paragraph 16.1.2. of network schedule of execution of activities of the National Plan on implementation of the Message of the President of Kazakhstan, dated 18 February 2005.

Relevance of program development is conditional to the presence of the priorities identified by the Strategic Plan of Development of Kazakhstan till 2010, approved by Decree of the President of the Republic of Kazakhstan dated 4 December 2001 #735 "On further measures for implementation of the Strategy of Development of Kazakhstan up to 2030", where the following strategic objectives relating to forest conservation are determined for the next ten years in the field environment protection: improvement of existing legislation, optimization of nature management and environment protection systems, providing environmental education, as well as challenges in stabilizing the socio-political situation, as the consolidation of the Kazakhstan society.

In view of preserving forests and biological diversity within the program two international projects were realized.

The project of the Global Ecology Fund "Conservation of biodiversity of Western Tien-Shan" provide strengthening the protection of unique biological communities and expansion of extra-protected natural areas in the South Kazakhstan region.

The project aims at solving problems in the field of conservation of biodiversity through the establishment of an integrated system of protected areas using an ecosystem approach. The territory of Aksu-Zhabaglinskyi state nature reserves and other protected areas of the West Tien Shan regard to the part of the project area in Kazakhstan.

The contribution of this project in the long-term economic and social development of Kazakhstan is to reduce the rate of deterioration of the important, unique, endangered (Red Book) species, communities and ecosystems directly inside and outside the protected area of Western Tien-Shan.

International Bank for Reconstruction and Development (IBRD) allocated a grant in the amount of 410.6 thousand U.S. dollars to prepare a full-scale project "Conservation of forests and increase of forest cover on the territory of the republic."

A full-scale project "Conservation of forests and increase of forest cover on territory of the republic", which aims at preserving and restoring tape pine forests of Irtysh and saxaul plants in Kyzylorda oblast',

support of the forestry industry of the republic, development and implementation of environmental norms of the use of rangelands in saxaul forests.

During the implementation of the Program in 2005-2006, work on reproduction of forests and forestation was carried out on the area of over 67.6 thousand hectares, including the method of planting and sowing on 55.3 thousand hectares. In 2007, work on the reproduction of forests and forestation was carried out on the an area of over 41.1 thousand hectares, which is 23% above the planned volume on the Program "Zhasyl el"

Over the entire period of establishment of the green zone of Astana, planting was performed on the area of 40.0 hectares, 14.0 hectares of which are within the border of the city and 26 hectares on suburban area.

For providing sylvula works there are 143 forest nurseries in the republic at present, on which 150-200 million pieces of standard seedlings of different species can be grown each year.

A Forest Seed Database is being formed on a selection base, it has 270 plus trees, 45 hectares of plus plantations, permanent forest seed plots and forest seed plantations over an area exceeding 850 hectares.

There are two Republican state government enterprises – Almaty and Kokshetau forest breeding centers functioning for its further development.

Development of plantation grown trees for various purposes is one of the most important directions in the forestry sector in Kazakhstan. The priority is given to engaging in the process of private investments, i.e. development of private forest ownership, which should be have the government support. This work will continue.

In addition to establishing plantations around the city, trees will be planted along roads and railways in the five areas of the capital.

Work on strengthening the material-technical base of public

institutions of forestry and environmental agencies is being carried out; fire and forest protection activities were performed.

Work on creation and maintenance of protective plantation in the right of way of roads of national importance was performed, 353 thousand seedlings were planted.

On the right of way of railways a protective plantation on the area of 0.15 thousand hectares were created and a set of activities for the care of protective forests in the area of 62.4 thousand hectares were taken.

Actions on the creation and maintenance of water stands on the area of 1.25 thousand hectares were made.

Parks and squares on the total area of 430 hectares were established in the regional centers.

Fighters of student environmental orders participated in the greening of settlements, they planted 2.0885 million seedlings.

During 2005-2007 the akimat of Astana city implemented the program of construction of parks, squares, boulevards. The total area of newly planted gardens and parks is 34.51 hectares.

To ensure the activities of youth labor brigades "Zhasyl el" the Republican headquarters of youth labor brigades "Zhasyl el" was created. In all regions and Astana and Almaty cities school orders were created with a number of 28 thousand people in 2005 and 32 thousand in 2006.

At the present the program "Zhasyl el" for 2008-2010, approved by the Government of the Republic of Kazakhstan dated 16 October 2007 #958 is being implemented.

Works on the reproduction of forests and forestation was carried out over an area of 44.7 thousand hectares in 2008. Extent of forest crops, established in 2008 by planting, is 15.1 hectares.

Kazakh Republican Forest Seed agency conducted laboratory studies to determine the quality of seeds for providing the work on reproduction of forests and forest seeds of high germination. Sowing quality of 25373.5 kg of forest seeds were checked in 2008. 12459.4 kg of them are conifers and 12914.1 kg - deciduous.

The following amount of seeds is planned to be planted on the area: coniferous - 29 ha, deciduous - 32 ha.

Planned withdrawal of planting material is planned in the amount of 33.0 million, which is enough to create 8.5 hectares of forest crops.

Along with the analysis on the definition of class quality, forest seeds go through phytopathological and entomological expertise. Phytopathological expertise involves 1038.8 kg of forest seeds, entomological expertise covers the whole seed fund.

Formation of a permanent forest seed base through the identification of objects of selection and seed-growing and selection and genetic purpose is provided by two companies - RGKP «Almaty forest selection center» and RGKP «Kokshetau forest breeding center» (hereinafter - KLSC).

These events will allow getting a seeding and planting material of improved breeding quality.

In addition, laboratory of mikroclonal breeding of tree species was created on the basis of KLSTS, which also aims on getting a plant material with improved genetic characteristics.

9. Nature reserve fund

The territory of Kazakhstan has a unique set of landscapes: from deserts to mountains and inland seas ecosystems. In the face of increasing tempo of economic growth and enhancement of the use of natural

resources, the issue on further improvement of the territorial nature protection has become important. Those conditions determine the need for further development of specially protected natural territories of Kazakhstan, as a workable system of conservation of biological diversity of the state.

Kazakhstan as a party of the Convention on conservation of biological diversity, has its commitment to conserve biological diversity. Legislation in the sphere of protected areas is based on the Constitution of the Republic of Kazakhstan, Law of the RK «On specially protected natural territories», the Concept of development and deployment of specially protected natural areas by 2030».

Parliamentary hearings on «Problems and prospects of development of the state of nature-reserve fund» held in March 2004, where the issues on development of the territorial nature reserves in Kazakhstan and the ways of their solution were discussed, have great importance for the development of the reserves management.

Analysis of the nature-reserve fund of the Republic of Kazakhstan shows that, out of 178 mammals, 140 (78.6%) are protected, including 22 species listed in the Red Book of the Republic of Kazakhstan (1991 release), or 61.1% of the total list of mammals in this Paper, 346 bird species (87.4%), 31 species of reptiles (63.2%), 23 species of fish (22.1%), but they are far from providing the conservation of unique floristic and faunal diversity in Kazakhstan, and supporting sustainable state of the whole complex natural ecosystems.

There is a need for a securely protected area of habitats of Altai, Kazakh, Karatau and Kyzylkum arhars. There are not enough protected areas for desert mammals - gazelle, kulan, manul, caracal, marbled polecat. Even saiga is not securely protected; there is not a big enough protected reserve in lambling areas of these valuable ungulates. 37 species (21.1%) of mammals, including 12 species listed in the Red Data Book of Kazakhstan are not found in the protected territories. Those are the ones inhabiting in the valley of the Ural – desman, forest marten, the European mink, giant mole-rat inhabiting in the Volga-Ural sands, etc. Red endemic of the Western Tien-Shan - marmot Menzbira located in this region is not found in the territory of Aksu-Dzhabagly Reserve.

The speed of creating reserves in the country is very low: for the 1978 - 2005 only 5 reserves were organized - Usturt, Markakol West-Altai, Alakol and Karatau.

The absence of the typical desert dwellers, such as many species of jerboa on protected areas out of the mammals that are not included in the Red Data Book of the Republic of Kazakhstan is significant.

For conservation of biological diversity of the class of mammals in Kazakhstan it is necessary to establish securely protected reserves in different types of deserts (of sand, clay, loessial, gravel and stone, saline), each of which has its own set of background mammals. Particular attention should be given to the western region, including the valley of the Ural River.

One of the tools for achieving these goals is creation of protected areas. The main task of forming the optimal system of protected areas is to ensure their inseparability, when the kernel reserves (reserves

and national parks) are interconnected areas with less strict protection (nature reserves, protected areas) as well as with elements of ecological network - of ecological corridors, forests, water zones and stripes and other protected natural areas.

The list of protected areas of national importance are approved by the Government Decision dated 10 November 2006, #1074. It includes 107 objects of nature-reserve fund.

As of January 1, 2006 10 state nature reserves, 9 state national natural parks, 2 state nature reserves, 55 state nature reserves, 5 of public protected areas, 26 natural monuments of national importance functioned in Kazakhstan.

The total area of protected areas of national importance was 21118.7 thousand hectares, including the status of legal entity of 3769.1 thousand hectares - 1.4% of the entire State. According to this showing the Republic of Kazakhstan is far behind the average world level (with the universally recognized world standards - 10-12).

At the present stage deployment of protected areas in the territory of the Republic of Kazakhstan can hardly be classified as an «ecological network» in its global sense. However, intra-regional ecological networks in Zaili Alatau, Zhongars Alatau and the Altai region are being formed at present. Elements of ecological networks are being formed; at the international level those are the West Tien Shan and Altai-Sayan ecological regions. Initiated works and developed approaches must be continued on all natural complexes (forests, prairie, forest and steppe, desert, semi-desert, coastal and aquatic ecosystems), for which the organization of ecological networks is also relevant, as well as for mountainous areas.

These tasks have to be solved in the condition of a high anthropogenic pressure. Conservation of rare and unique species of flora and fauna, abiocoen in these conditions is possible only through organizing a representative system of protected natural areas.

In accordance with the article 7 of the Law «On Specially Protected Natural Areas» dated 7 July 2006, the Government of the Republic of Kazakhstan approved the «Program of development of specially protected natural territories of the Republic of Kazakhstan for 2007 - 2009 years» by Government Decision dated October 13, 2006 #990.

The purpose of the program is Conservation of biological diversity of nature-reserve fund, natural and cultural heritage through the development of specially protected natural areas in all climatic zones of Kazakhstan.

The Program tasks – identify priority natural systems to give them the status of specially protected natural areas basing on the analysis of the current state of the territorial protection of biological diversity in the Republic of Kazakhstan; establish a phase order of expanded and re-created specially protected natural areas of various categories and types for 2007 - 2009 years.

Timeline for implementation of the Program for 2007 - 2009 years.

Estimated financial costs for realization of the Program: from the national budget - 147.81 mln, at the expense of international grants: - 9.3 million tenge.

This program aims to identify priority areas for the development of protected areas, to avoid spontaneous decisions in the use of natural resources, to ensure their representation, both of their area, and the spectrum of coverage of natural areas and landscapes.

These measures will increase the area of nature reserve fund of the Republic of Kazakhstan to 1258.66 thousand hectares, and bring the proportion of specially protected areas to 1.8% of the territory in 2009. This will ensure the protection of landscape and biological diversity of the state, development of eco-tourism; improvement of the environment and public health.

The work on organizing the new and expanding existing specially protected natural areas was performed.

The National Nature Park “Kolsay lakes” in the Almaty region in the area of 161,045 hectares was established in February 2007 to preserve the natural systems, and Irgiz-Turgay State Nature Reserve in Aktyubinsk region was created on the area 711,549 ha to enhance the effectiveness of the protection of saiga. Also, the territory of Bayanaul State National Natural Park was expanded to 17,764.8 hectares, the West Altai State Nature Reserve to 30,044 hectares and Markakol State Natural Reserve to 27,931 hectares.

Resolution of the Government of the Republic of Kazakhstan “On several issues on expansion of the territory of public institution Korgalzhy State Nature Reserve” dated December 18, 2008; the reserve area was expanded to 284,208 hectares. At present the official area of Korgalzhy reserve is 543,171 hectares.

Tengiz-Korgalzhy lake systems are one of the most important wetlands for migratory birds in Kazakhstan and throughout Asia. In 1974, wetlands of Tenghiz-Korgalzhy system lakes were included in the Ramsar List. In 2000, the Tengiz lake was included in the international network "Living Lakes", which includes the most famous lakes in the world. At present this area is included in the UNESCO World Heritage List, and in the future, a Biosphere Reserve can be created there.

The reserve in the delta of the Ural River and the northern Caspian Sea was created by the decision of the Government of the Republic of Kazakhstan “On some questions of a public institution “State Nature Reserve “Akzhaiyk” dated February 6, 2009. The area of the reserve is 111,500 hectares.

Wetlands of the Ural River Delta and adjacent coast of the Caspian Sea are the most important lands on the Eurasian continent, which provide support to the millions of waterfowl and coastal birds during breeding, molt, seasonal migrations and wintering.

10. International conventions and agreements on Biological Diversity

The last three decades witnessed the emergence of a coherent response to the crisis of biodiversity. International conventions aimed at preserving endangered species have been developed. They include

the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) of 1973 and the Convention on Conservation of Migratory Species of Wild Animals (Bonn Convention) of 1979. In 90-ies the adoption of the Convention on Biological Diversity (CBD) has been one of the most important responses to the problem of extinction. It was the first global agreement on conservation and sustainable use of biological diversity. The Cartagena Protocol on Biosafety, ratified by Kazakhstan in July 2008 and directed to reduce the potential risk of cross-border trade and accidental releases of living genetically modified organisms, became a supplementary agreement to the Convention.

The Republic of Kazakhstan, as a subject of international relations, after achieving the sovereignty and independence, as many other CIS countries, has acceded to many international legal instruments on environmental protection and has a number of commitments to the international community aimed at the rational, efficient and safe use of natural environment. Thus, the Republic joined, signed, approved and / or ratified the five priorities of international treaties on conservation and sustainable use of biodiversity: the Convention on Biological Diversity (approved on August 19, 1994); Convention on Protection of World Cultural and Natural Heritage (ratified on 29 July 1994); the Convention on Conservation of Migratory Species of Wild Animals (joined on 13 December 2005); The Convention on Wetlands (joined on 13 December 2005), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (6 April 1999).

Ratification of the Bonn and Ramsar Conventions positioned Kazakhstan as an active participant in the field of biodiversity conservation and in the international multilateral agreements.

Despite the fact that our country is located in the arid part of Eurasia, a substantial part of natural ecosystems are represented by VBU complexes, beginning from the Caspian Sea and the major lake systems and ending with thousands of freshwater and saline lakes scattered on the vast grassland plains. Two world flight routes meet at the Kazakh part of Wetlands of the Eurasian continent - Central Asian-Indian and Siberian-Eastern African. Kazakhstan is an international harbor on the passage of migratory birds. Wetlands of Kazakhstan are the place for nesting and feeding of birds from Western Europe, Southeast Asia, Africa and the Arctic coast. Kazakhstan has the largest population of waterfowl in Asia, more than 130 species. Every six months, more than 50 million birds migrate through Kazakhstan. 20 percent of them nest in the territory of Kazakhstan.

The main mechanism for wetland conservation at the international level at present is the Convention on wetlands of international importance, especially as waterfowl habitat (Ramsar Convention). The List of Wetlands of International Importance under the special protection of the convention was created within its frames. One of the conditions of accession to the Ramsar Convention is declaration of at least one Ramsar sites in their territory by Government of participating country.

As of today 157 countries joined the Convention, and the total number of Ramsar sites exceeded 1708. Kazakhstan formally joined the Convention on 2 May 2007 after being included in the list of Tengiz-Korgalzhyn system of lakes.

Kazakhstan currently operates a number of international projects that directly or indirectly relate to conservation of wetlands as habitats for migratory birds, or directly to the conservation of birds.

As a result of UNDP efforts to support sustainable development in Kazakhstan and to improve environmental management system, in cooperation with the Ministry of Environment (MoE) in 1998, the Council for Sustainable Development of Kazakhstan (RMS) was created in 2005. The Concept of transition of Kazakhstan to Sustainable Development for 2007-2024 was developed and adopted in 2006, the Parliament enacted the Environment Code, poverty reduction programs were carried out together with MEBP, evaluation of implementation of international environmental conventions was completed, and action plans on capacity-building of the country in the implementation of commitments under these conventions was prepared.

These achievements have helped in promotion of Kazakhstan to sustainable development and grounding for future efforts, including strengthening the role of the Concept of Sustainable Development (CSD) in the development and implementation of sustainable policies, introduction of principles of SD in the individual regions and sectors of the economy, expanding the capacity of the MEP as a working body of SD and strengthening its role in international processes for SD.

In accordance with state programs and priorities of the Government of the Republic of Kazakhstan, the United Nations Development Program was developed by the project «Support to the implementation of the Concept of Transition of Kazakhstan to Sustainable Development»

The project aims to assist in implementation of the Concept of Transition of Kazakhstan (RK) for Sustainable Development (SD) for the years 2007-2024, adopted in November 2006

This goal will be achieved through the implementation of two specific tasks:

- 1) assistance to the Council on Sustainable Development of Kazakhstan and the Environment Protection Ministry as the Secretariat of the CSD to build capacity for the effective operation of the CSD,
- 2) to demonstrate application of the principles of sustainable development in the strategy of development of the energy sector through the introduction of strategic environmental assessment and improvement of showings of energy efficiency and integration of sustainable development indicators in the national statistics system for effective monitoring of SD.

Project Duration: April, 2007 – October, 2008.

Project Budget: 195 000 USD

The project provides the actions on strengthening the capacity of stakeholders from key government agencies responsible for implementing the concept of SD, including the MoE, Ministry of Economy and Budget Planning (MEBP), Ministry of Energy and Mineral Resources (MEMR), the Agency for Statistics, etc.

In view of implementing the priorities of the Concept of SD partnerships with national and regional projects of UNDP in Kazakhstan and Central Asia will be set up.

Assistance in coordination activities of sectoral ministries and strengthening of capacity in implementing the UN Convention on protection of biodiversity; preparing proposals for strategic planning to ensure sustainable conservation of wetland resources in mountain and grassland systems and mountain agrobiodiversity in Kazakhstan; Assistance in coordination with the regional mining center (Bishkek).

Preparation of proposals on strategic planning for sustainable conservation of mountain ecosystems in Kazakhstan.

The following projects were developed and implemented for realizing the priority of concept of SD in conservation of biodiversity:

1. In-situ conservation of Kazakhstan's mountain agrobiodiversity (GEF).
2. Conservation and sustainable use of biodiversity in the Kazakhstani sector of the Altai-Sayan mountain ecoregion (GEF).
3. Integrated conservation of globally significant s as waterfowl habitat (GEF).

Project In-situ conservation of Kazakhstan's mountain agrobiodiversity

The wild fruit forests ecosystems in the Zailiyskiy and Dzhungar Alatau project sites are the habitat for the agrobiodiversity plant variety that have global significance. At least about 100 varieties exist in the sites and these species are identified as wild ancestors of 24 agricultural crops that constitute more than 75% of the plant agrobiodiversity of Kazakhstan. Wild relatives of domesticated plants found here include wild apple, apricot, gooseberry, sallow-thorn, grape, currant, onion and garlic, lucerne and tulips. Mountain relief and ecological factors have caused the apple and apricot genetic variety and its species polymorphism which is the source of their cultivated species selection. It is believed by scientists that the European cultivated apple (*Malus domestica*) arose in the Tien Shan mountains of Kazakhstan from the wild apple (*Malus sieversii*), which seeds spread throughout Europe owing to the famous Silk Road. The wild fruit forests represent the unique gene pool source which is of the mountain agrobiodiversity global significance. By now the project sites wild forests area have decreased for almost 60%-70%, and the wild apple sorts are degrading. The threat of the progressing degradation of mountain agrobiodiversity is observed as a result of cutting, overgrazing, fires, as well as the construction of country estates, tourism facilities and inappropriate concurrent land-use, genetic erosion, introduction of aggressive alien varieties, the population insufficient socio-economic living conditions.

Thematic area: Biodiversity, Environment.

Objective:

The objective of this project is the in-situ conservation and sustainable use of biological diversity of global importance to agriculture in two sites in Kazakhstan's Tien Shan Mountains.

Main partners: State authorities - Forestry and Hunting Committee of the Ministry of Agriculture of RK, Almaty Oblast Akimat, Almaty Oblast Territorial Administration of the Forestry and Hunting Committee, Almaty Oblast Territorial Administration of the Environmental Protection (Ministry of Environmental Protection of RK), Almaty Oblast Regional Akimats (Alakol, Sarkand, Talgar, Enbekshikazakhskiy).

Length of the project: 1 March, 2006 – 28 February, 2012.

Total budget \$22,569,877

GEF: FP \$2,770,000; PDF A \$22,000; PDF B \$230,967. Total: \$3,022,967

Parallel -financing: Ministry of Agriculture \$17,244,710; Almaty Oblast Akimat \$300,000;

LTD "Plodex" \$960,000; LTD "Zhibek-Joly" \$800,000; LTD "Agroinprof-service" \$108,000;

Kazakhstan Community Loan Fund \$70,000; Green Salvation \$18,000; ACDI/VOCA \$30,000;

Farmer of Kazakhstan \$16,200. Total: \$19,546,910

Achievements:

Inclusion of wild apple trees and apple trees of Nedzvedskyi Sivers, as well as ordinary apricot in a preliminary list of the IUCN Red Data Book, section «Woody plants» Central Asia region.

The final list of categories assigned to each plant will produce FAUNA & FLORA International and sent to the country to verify and then to the IUCN;

Completed survey and inventory of forest wild fruit trees, formed an information database, completed work on preparation of documentation for creating Zhongar-Alatau State National Natural Park and reconstruction of the forest nursery of Lepsinskyi state forestry agencies.

State environmental expertise approved the draft scientific justification for establishing a new Zhongar-Alatau State National Natural Park of Kazakhstan

Ongoing activities to improve the management capacity of protected project areas, development of alternative activities and informing the local population. Completed work on the popular science video on the mountain fruit forest «Precious necklace of mountains».

Started experimental work to develop methods of growing seedlings of natural genotypes of globally significant Sivers apple and an ordinary apricot, as well as the establishment of living collections of form diversity of these species. Improved communication and interaction with local communities in rural

areas of the project and non-governmental organizations working in the field of biodiversity, which contributes to a better understanding of the problems in the field of mountain agro-biodiversity conservation.

Forestry and Hunting Ministry of Agriculture approved the new structure of Ile-Alatau State National Natural Park (GNPP), which will create a new department of research works and a mountain agrobiodiversity (GABR).

Project Conservation and sustainable use of biodiversity in the Kazakhstani sector of the Altai-Sayan mountain ecoregion

Mountain-forest territories of East Kazakhstan make the integral component of globally important Altai - Sayan ecoregion. The area is a concentration of a considerable number of rare animals and endemic species of plants. In spite of the fact that wood areas are under official protection, management of the given territories leaves much to be desired.

Reserves and national parks of Kazakhstan border on the territories located in Russia and Chinese People's Republic, having various forms of use. The uniform approach to region natural resources conservation and also conservation of migrating species of animals demands development and introduction of new trans-boundary cooperation actions. It is also necessary to reconsider present wood and biological resources management inside each of the countries.

Thematic area: Biodiversity, Environment

Objectives:

The goal of the project is to help secure the globally significant biodiversity values in the Kazakhstani sector of the Altai-Sayan mountain ecoregion. The project's objective is to enhance the sustainability and conservation effectiveness of Kazakhstan's national PA system by demonstrating sustainable and replicable approaches to conservation management in the protected areas in the Kazakhstani sector of Altai-Sayan ecoregion.

Partners:

- Forestry and Hunting Committee of the Ministry of Agriculture of the Republic of Kazakhstan, the Ministry of Environmental Protection
- Eastern Kazakhstan Oblast Akimat
- Markakolskyi State Reserve Administration
- Katon-Karagaiskyi National Park Administration
- Non-governmental organizations and local communities

- Representatives of a private sector engaged in tourism, forestry, beekeeping, maral (Siberian deer) keeping, craftsmanship, food stuffs manufacturing, etc.

Length of the project: 01 February 2007 – 01 February 2012

Budget of the project:

Budget of the project: \$18 734 400

Funds: GEF \$2 395 700; UNDP \$40 000; Government \$9 213 200; NGO \$12 000;

Private sector \$45 000

Investment: UNDP \$10 000; Government \$6 400 000; NGO \$250 000; Private sector \$368 500

Achievements:

The project will produce the following outcomes:

- The protected area network will be expanded and PA management effectiveness will be enhanced;
- Awareness of and support for biodiversity conservation and PAs will be increased among all stakeholders;
- The enabling environment for strengthening the national protected area system will be enhanced, community involvement in biodiversity conservation will be increased and opportunities for sustainable alternative livelihoods within PAs and buffer zones will be facilitated;
- Networking and collaboration among protected areas will be improved;
- The best practices and lessons learned are supposed to be disseminated and replicated in other locations within the national protected area system.

Project Integrated conservation of globally significant migratory bird wetland habitat: a demonstration on three sites

Kazakhstan's wetland areas are important habitats for migratory birds and rare/endemic plant species. Although under official protection, these areas are not managed adequately and are in dire need of human and institutional strengthening. Dramatic social and economic reforms have created new challenges for sustainable land and water resources management. New land ownership patterns, reduced funding for protected areas management, narrowly focused water management policies and lack of experience in cooperative management of public resources with private landowners claim urgent

reorientation in management, strengthened financing mechanisms and new relationship with stakeholders.

Thematic area: Environment Management and Human Security.

Objectives:

To create a basis for the development, integrated and joint approach to conservation and sustainable development of biological diversity at the priority significant migratory bird wetland habitat:

- ❑ Improve regulatory framework for biodiversity integrated conservation and management;
- ❑ Strengthening protected area management;
- ❑ Public awareness rising about wetlands global significance;
- ❑ Participatory demonstration of methods and experience of sustainable use of biodiversity at productive landscapes;

Establish Biodiversity Conservation Trust Fund.

Partners: Committee on Forestry, Fishery and Hunting under Ministry of Agriculture, Ministry of Environmental Protection and communities in areas surrounding the three wetland sites; the private sector in sit areas involved in fishery, agriculture and tourism.

Length of the project: 0 August, 2003 – 20 August, 2010

Budget and Donors: GEF (\$ 8,710,000)

Government of Kazakhstan (\$ 24,270,000)

Third party: parallel financing (UNDP, Zhybek-Zholy National Private Company, NABU German NGO and etc.) (\$ 2,965,000)

Achievements to date:

- The project has multi-direction activities for improvement of regulatory base of wetland biodiversity and meeting the commitments of Ramsar and Bonn Conventions;
- Management plans of Alakol and Korgalzhyn reserves are developed and being implemented;
- Scale scientific analyses were carried out with the use of new modern GIS technologies following ecosystem approach;
- Natural and feasibility studies for expansion of borders of Alakol and Korgalzhyn Reserves and establishment of State Nature Reserve “Akzhaiyk” in Ural River Delta were developed;

- Series of trainings on ecotourism development and environmental education for the staff of state bodies (Ministry of Agriculture, Ministry of Industry and Trade), executive power (Akimats of Atyrau, Almaty and Akmola oblasts) and public institutions were carried out;
- At the project sites series of trainings on felt handicrafts and milk production for local communities were carried out;
- The project developed the Concept of establishment of modern Visitor-Centers at Korgalzhyn and Alakol State Nature Reserves, as an alternative to the existing nature museums;
- The school programmes of additional lessons to improve knowledge in wetlands conservation are prepared;
- The project Web site has been launched at www.wetlands.kz
- The Review on agriculture, fishery and hunting management and Assessment Analysis of modern state of oil sector at Ural River Delta site was prepared;
- The developed Concepts of Ecotourism Development at Alakol Sasykkol project site and Ural River Delta is under implementation;
- International workshop on establishment of Biodiversity Conservation Fund of Kazakhstan;
- The Concept of establishment of Biodiversity Conservation Fund of Kazakhstan, draft regulations of the Fund, regulations of Trustee Council, organizational chart of the Fund, and constituent agreement were elaborated.

The Fund on conservation of biodiversity of Kazakhstan, which is the first specialized non-governmental environmental fund not only for Kazakhstan but also for the CIS countries, was established within the project.

It is aimed at establishing the mechanism for additional financing of projects aimed at conserving of biological diversity and sustainable use of natural resources of Kazakhstan through provision of the grant support to legal entities.

The fund was established on the basis of the study and analysis of international experience, in accordance with generally recognized international norms and standards. At the stage of its development the UNDP and SFF will provide financial, organizational and technical assistance fund (GEF provides funding of \$ 1.5 million).

This non-governmental organization provides a unique mechanism and an example of social partnership, which brings together government, business and society to address environmental issues, particularly biodiversity conservation and sustainable use of natural resources.

Three-part monograph “The Globally significant wetlands of Kazakhstan” was published. Results of surveys on water and earth ecosystems held by the project, and also, assessment of ecology and environment protection meaning of wetlands of Kazakhstan: Ural river delta, Teniz-Korgalzhyn and Alakol-Sasykkol lake systems are included in the book.

The agreement on cooperation was signed between the Ministry of Agriculture, the MEP and UNDP in Kazakhstan under the project on VBU.

The purpose of the Agreement is implementation of joint activities of the Project and subdivisions of public authorities (in particular RSE “Kazgidromet”) on the program of systematic monitoring of the aquatic habitat for the delta of the Ural River with the adjacent coast of the Caspian Sea, Alakol-Sasykkol and Tengiz-Korgalzhyn systems of lakes.

Microcredit program for 2008-2011. «Microcrediting of rural entrepreneurs, living close to specially protected natural areas».

The program is being implemented jointly by JSC «Fund on Financial Support of Agriculture», SFF KLOH MA RK, Fund on conservation of biodiversity of Kazakhstan and UNDP within the project on conservation of wetlands in Kazakhstan on three project areas: the delta of the Ural River, Tengiz-Korgalzhyn and Alakol – Sasykkol system of lakes.

Socio-economic studies have shown high level of unemployment, weak rural infrastructure, low incomes and other socio-economic problems in the project areas. Local people living in project areas maintain intensive nature use of productive landscapes as the source for their livelihood, use unsustainable methods of economic activities, largely exacerbating the situation on conservation of ecosystems.

Realizing the situation, the rural population has shown a great interest in developing their own business and receiving ongoing access to microcredit and grant funding sources. Despite the diversity and large number of microfinance organizations operating in Kazakhstan, the demand for microcredit remains unsatisfied. The conditions and requirements of second level banks and microcredit organizations to documents are fairly rigid and have a definite impact on attracting the majority of potential borrowers.

Benefit conditions of microcrediting of the developed program compared to existing conditions of crediting in Kazakhstan are the key components, because the program will stimulate the development of rural businesses on the basis of nature saving activities and technologies, as well as the development of alternative activities.

Priority areas of funding of projects: 1) Sustainable fisheries management, 2) sustainable hunting management, 3) Sustainable tourism: a) development of ecological routes and tourism infrastructure, c) rural tourism, 4) Sustainable use of natural energy sources (renewable energy) as means of improving efficiency of energy and energy conservation, 5) sustainable agriculture (possibly co-financing): 5.1. Crop

production: a) fruit b) horticulture, refining of agroproducts 5.2. Livestock: a) processing of livestock products and development of beekeeping 6. Sustainable forest management.

Types of economic activities, which do not damage the biodiversity of VBU and allow reducing the pressure on natural resources of wetlands are: production and sale of handicrafts products, production of local building materials.

Implementation of alternative types of economic activities will improve the living standards of local population in project areas, socio-economic situation in the region through involvement in conservation of biodiversity of the native land. Improving the living conditions of local communities will reduce the threat to the biodiversity of wetlands.

At the same time, the received positive experience in microcrediting of environmentally-oriented types of activities as an alternative to inefficient management of economic activities will also be the important result of the activities, which can be replicated in other regions of the country and is useful for other projects.

In addition, the program will promote the development of microfinancing sector as a tool to influence conservation of environment through involvement of the rural population in development of alternative types of activities.

The main part of modern habitats and resources of saiga represented by three separate populations – Bekpakdala, Usturt and Ural are located in the territory of Kazakhstan. In the fifties of the last century the number of saiga in the country was 1.5 million. However, repeated snowy winters, diseases, pressure of predators (wolf), the collapse of the system of public service wildlife protection in the nineties of the last century, and as a consequence, the emergence of mass poaching, put the saiga to the brink of extinction; its quantity reduced to 21.1 thousands in 2003.

Non-regulated hunting after animals and other anthropogenic factors cause the depletion of the animal world. Kazakh kulan and Turan tiger, and most likely the cheetah disappeared from the territory of Kazakhstan in the middle of 20th century.

At present 9 species and subspecies of ungulates were recorded in the Red Book of the Republic of Kazakhstan: Karatau mountain sheep - 110, Tien Shan mountain sheep - 675, Kazakhstan mountain sheep - 11000, Kyzylkum mountain sheep - 25, Altai mountain sheep - the single, Usturt mountain sheep - 1000, gazelle - 22186, tugai red deer - 358, Turkmen kulan - 1872 specimens.

Three subspecies of mountain sheep and the red tugai deer are on the verge of extinction, and the rest are regarded to reducing and rare species. Distribution of all species and subspecies are mosaic and few. The state of their population is currently very vulnerable due to the poachers.

The program on conservation and restoration of rare and endangered species of wild ungulates and saiga for 2005-2007, approved by Government Decision dated 25 March 2005 #267 was developed in purpose of saving the animal world of Kazakhstan.

Protection of rare and endangered species of wild ungulates and saiga is being performed within this program.

Budget - 844551000.0 tenge.

In view of execution of the Program by the Ministry of Agriculture the first international meeting on conservation, restoration and sustainable use of saiga was held in Almaty on 25 September 2006 with support from the secretariat of Bonn Convention and CITES Convention. On the meeting, Kazakhstan signed a Memorandum of Understanding and an Action Plan on conservation, restoration and sustainable use of saiga antelope, prepared by the Secretariat of the Bonn Convention.

In May 2007, Kazakhstan and Turkmenistan signed an intergovernmental agreement on conservation of saiga.

Implementation of the program affects the efficiency of actions on conservation of saiga, and will contribute to conservation of rare wild ungulates and the saiga in the area of their distribution.

Accounting of saigas, conducted in 2005-2007 with participation of employees of the Zoology Institute of MOES of the RK has shown that the dynamics of reducing the number of animals is stopped, and the increase is observed. In 2005, the number of saiga was 39.6 thousand specimens; in 2006 - 49.3 thousand. Revival of the special saiga protection department on the basis of RGKP "PO "Ohotzooptom" of the Committee of Forestry and Hunting Management of the Ministry of Agriculture of Kazakhstan, increasing of public financing of environmental activities, have radically reversed the situation. In 2007, the number of steppe antelopes has increased to 54.8 thousand specimens, against 21.2 thousand in 2003.

It is prohibited to remove saiga throughout the territory of the Republic of Kazakhstan till 2011.

In accordance with the Government Decision dated October 9, 2006 #970 "PO "Ohotzooptom" implemented the introduction of 30 specimen of kulans on the territory of Andasay State Natural Reserve of Republican values in the Zhambyl region. Also, 7 species of tugai deer were displaced to State National Park "Altyn-Emel".

To increase the efficiency of protection of saiga within performance of activities of the Program Turgay-Irgiz State Nature Reserve, intended to protect and restore saiga was created by the Government Decision dated February 14, 2007 #109.

In accordance with paragraph 58.3 Action Plan on implementation of the National Plan of the main directions (actions) for implementation of 2005-2007 annual message of the Head of the State to people

and the Program of Government of the Republic of Kazakhstan for 2007-2009. The program for the conservation and rational use of water resources, wildlife and the development of a network of specially protected natural areas to 2010

Aim of the Program: Conservation and management of water resources, wildlife, development of a network of specially protected natural areas.

Expected results of implementation of the Program:

improving conditions for the artificial and natural reproduction of fish, reclamation work on the 2 fisheries waters of Kazakhstan;

making suggestions for: reclamation (dredging) works in the rivers of Karatal and Almaty region, a new sturgeon fish hatcheries to produce juvenile sturgeon species capacity to 20 million fry per year in the Ural-Caspian basin, selection and breeding work, preservation of the genetic fund of cyprinid fish species, development of biotechnology and aquaculture facilities;

increase areas of protection of rare and endangered species of wild ungulates and saiga;

stabilization of the number of tugai red deer, gazelle, mountain sheep, kulan, restoring their population on historic range to sustainable development and annual increase of the number of saiga to 10%;

increase the area of specially protected natural territories of the Republic of Kazakhstan to 1258.7 thousand hectares (percentage of protected natural areas will make 8.5% of the territory of the State);

strengthening the protection of landscape and biological diversity of the state, wetlands, steppe and semidesert zones of the plain of Kazakhstan, which have global significance for conservation and restoration of populations of rare and endangered species of large mammals (saiga, kulan) and birds (bustard, sociable plover, predators and water wading birds);

expanding areas of protection of rare animal species (snow leopard, argali, Tien-Shan brown bear, the Central Asian (Turkestan) lynx, Central Asian otter, manul, marbled polecat, stone marten), habitat and reproduction of salmon fishes;

protection of endemic and rare representatives of flora, the unique sub-alpine vegetation (apple Sivers, maykaragan, Ledeburov almond, Altai rhubarb, pale hazel grouse, prickly oxytrope, Altai daphne, Tarbagatai stelleropsis, Popov's mertenziya, pink radiola, maral root)

creation of protected natural areas in the priority areas, ensuring long-term conservation of biological diversity and sustainable environment.

To restore population of saker falcon in the south-east of Kazakhstan 70 specimens of saker falcons, which were grown in Falcon Cattery of LLP "Sunkar" (Almaty) were released to the nature.

The number of rare and endangered species of wild ungulates and saiga were recorded in 2008 within the Program. As a result of aerovisual and the ground record the number of saiga in 2008 amounted to 61,0 thousand heads, the general increase in livestock of saigas compared to 2007 was 11.3%.

About 300 game farms were created during 2006-2008, and the total number as of 1 November 2008 is 655 households. Protection of animal life in the hunting grounds was strengthened by hunting services. According to information of local offices number of hunters reached 2272 people in 655 hunting farms, which have about 1411 vehicles assigned.

Work on increasing the area of assigned hunting grounds for hunting organizations is ongoing.

State inspectors of territorial bodies of the Forestry and Hunting Committee of the Ministry of Agriculture, the inspectors of security department of specially protected natural areas, security inspectors of RGKP "PO "Ohotzoprom" hunting service and hunting organizations are involved in protection of wildlife.

Joint meeting of State Committee for Nature Protection of Uzbekistan and Forestry and Hunting Committee of the Ministry of Agriculture of Kazakhstan was held in February 2008 in Tashkent. As a result of the meeting the "Plan of joint actions on conservation of Usturt saiga population in 2008-2010 years" was signed.

Forestry and Wildlife Management take actions on organization of joint activities with the Uzbek side on protection and accounting.

Mobile units equipped with a motor-road, sport bikes, government-issue weapons, means of communication, video and photographic apparatus operate in the system of RGKP "PO Ohotzoprom" to protect the saiga, as well as rare and endangered species of wild ungulates.

Government inspectors of the regional territorial inspections of Forestry and Hunting departments, employees of law-enforcement and environmental agencies are also involved in protection of saiga.

In view of enhancing measures of responsibility for illegal catching of saigas there were changes and additions made in the rules of the Criminal Code and the Code of Administrative Offenses, which, particularly provide penalties for purchase or sale of animals, hunting of which is completely prohibited, or products made from them. This rule prevents the possibility of evading responsibility by poachers. Order of Forestry and Hunting Ministry of Agriculture prohibits the seizure of saiga, as well as collection, preparation, acquisition or sale of their horns and products throughout the Republic of Kazakhstan till 2011.

Existence of the local saiga meat and horns market and smuggling them abroad, as well as evading of detained persons from responsibility, constitute a risk factor for conservation of saiga, thereby reducing the efficiency of government measures on their conservation.

Works on regulating the number of wolves, with the assistance of experienced wolf-hunters in shooting 800 predators were performed for reducing the pressure of predators in the habitat, lambing area and routes of migration of saiga.

Work on counting the number and defining the range of population of rare and endangered species of wild ungulates in Kazakhstan is ongoing.

11. Ecotourism

The natural potential of Kazakhstan offers great opportunities to develop ecotourism in protected areas, because it has a great diversity, uniqueness and attraction of landscapes that are not yet covered by the processes of urbanization and intensive agricultural production.

The republican system of protected areas included: 10 state nature reserves, 10 state national natural parks, 3 state forest natural reserves, 50 state nature reserves, 26 natural monuments, 5 public botanical gardens in the cities of Almaty, Karaganda, Ridder, Zhezkazgan, Bakanas village, 5 public conservation areas in 2008.

Eco-tourism can be developed in all types of protected areas, but the treatment of reserves, which is the most stringent in comparison with other types of specially protected natural areas, respectively, imposes maximum limits on organization of eco-tourism, with strict observance of environmental regime and a clear setting of the number of visitors. Specificity of reserves was also established for solving many of the scientific and research tasks, which makes it possible to use them for scientific tourism. The state national natural parks (SNNP) have the greatest potential for developing eco-tourism as a special type of specially protected natural areas, one of the directions of which is the development of recreational and tourist activities. In view of this, the state national natural parks continue organization of routes in tourist and recreational areas on strictly defined environmental routes to examine picturesque landscapes, natural monuments and other notable sites.

9 SNNPs out of 10 are administered by the Forestry and Hunting Committee of the Agriculture Ministry of the Republic of Kazakhstan.

State national natural parks are: in Almaty region: 1. SNNP «Altyn-Emel» 2. Ile-Alatau SNNP 3. Charyn SNNP 4. SNNP “Kolsai lakes”; in Akmola region: 5. SNNP “Burabai” (administered by the Office of the President of the Republic of Kazakhstan); in the North-Kazakhstan and Akmola regions: 6. SNNP “Kokshetau”; in Pavlodar region: 7. Bayanaul SNNP; in Karaganda region: 8. Karkaraly SNNP; in the East Kazakhstan region: 9. Katon-Karagai SNNP; South Kazakhstan Region: 10. Sairam-Ugam SNNP.

In order to develop ecological tourism in the specially protected natural territories a Memorandum of understanding was signed between the Committee on tourism industry of the Ministry of Tourism and Sports of the Republic of Kazakhstan (CTI MTS RK), FHC AM RK, the Environmental Forum of non-governmental organizations, Kazakhstan Tourism Association.

As of today, the general plans, which allow optimal determining of planned location of major tourist facilities on the territory of the national parks considering the environmental requirements and peculiarities of nature, were developed within the state order for four national parks ("Ile-Alatau", "Bayanaul", "Kokshetau", "Altyn-Emel").

It is planned to develop general plans for additional 4 Specially Protected Natural Areas, which provides the development of infrastructure for development of ecotourism.

There are environmental education and tourism departments operating in these establishments, the main task of which is to develop eco-tourism, organization, conducting and management of cultural, educational, recreational and tourist activities in the parks. 84 tours and sightseeing routes, the length of which are more than 2 thousand kilometers were organized on designated areas of national parks; 36 observation platforms, 58 bivouac areas and camps were equipped, 750 banners, information stands and signs were installed.

In order to promote ecotourism in the territory of SNNP, TIC MTS RK officer was included in the Scientific and Technical Council of FHC AM RK, where the issues of ecotourism development in specially protected areas and creation of tourism infrastructure are considered.

In accordance with the Action Plan for 2007-2009 on realization of the State program on development of tourism in the Republic of Kazakhstan for 2007-2011, approved by Decree of the Government of the Republic of Kazakhstan dated 28 February 2007, #156, CTI MTS RK works on implementation of investment projects on construction of tourist complex in the village Akmaral of Katon-Karagai District in the East Kazakhstan region, mining and ski resorts in Almaty region, according to master plans on development of tourism infrastructure of Katon-Karagai and Ile-Alatau SNNP and establishment of national parks for the development of ecological tourism.

Under the new provisions of the Law of the Republic of Kazakhstan «On Specially Protected Natural Areas» the new procedure of the development of ecological tourism in the state national parks was established.

Allocation of land on specially protected natural areas to physical and legal persons for using in purpose of regulated tourism and recreation will be made only in accordance with the master plan for infrastructure development. This will allow to plan and implement regulated tourism in protected areas with the lowest pressure on natural systems.

For further development of ecological tourism in the specially protected natural areas, the following activities are being performed: development of master plans for infrastructure development of state national natural parks and state forest natural reserves that are of interest for the development of ecological tourism; - processing of the system of regulating the flow of visitors to protected areas through the selection of tour operators; - development of a network tourist itineraries of various directions, followed by their establishment and certification; -ensuring the safety and security of visitors and maintenance of tourist resources of protected areas; - development of infrastructure for tourism

activities by attracting additional investors and interested business entities, tourism organizations, local people; - improvement of tourist routes (settlement of recreation facilities, shelters, construction and installation of small architectural forms, etc.); - advertising and information activities.