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GLOBAL PROJECT THE BIODIVERSITY FINANCE INITIATIVE «BIOFIN»

PUBLIC AND PRIVATE BIODIVERSITY EXPENDITURE REVIEW IN KAZAKHSTAN



**PUBLIC AND PRIVATE BIODIVERSITY
EXPENDITURE REVIEW IN KAZAKHSTAN**



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BIOFIN is a global partnership addressing the biodiversity finance challenge in a comprehensive manner. The Initiative provides an innovative methodology enabling countries to measure their current biodiversity expenditures, assess their financial needs in the medium term and identify the most suitable finance solutions to bridge their national biodiversity finance gaps.

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LIST OF ABBREVIATIONS

ACBK	Association for Conservation of Biodiversity of Kazakhstan
BaU	Business as Usual
BCFK	Biodiversity Conservation Fund of Kazakhstan
BER	Biodiversity Expenditure Review
BIOFIN	Biodiversity Finance Initiative
CFW	Committee of Forestry and Wildlife
CBD	Convention of Biological Diversity
DPA	Department of President Affairs
FDI	Foreign Direct Investment
FNA	Financial Needs Assessment
GDP	Gross Domestic Product
GEF	Global Environment Facility
HC	Hunting Concession
JSC	Joint Stock Company
KZT	Kazakhstani Tenge
MCI	Monthly Calculation Indexes
NBSAP	National Biodiversity Strategy and Action Plan
PA	Protected Area
PES	Payments for ecosystem services
RB	Republican Budget
RBC	Republican Budget Commission
RTIC	Regional Territorial Inspection Centers
SFE	State Forest Estate
SGP	Small Grants Programs
SNNP	State National Nature Park
UNDP	United Nations Development Programme
WRC	Water Resources Committee

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EXECUTIVE SUMMARY

This public and private Biodiversity Expenditure Review (BER) is one of the studies undertaken in Kazakhstan as part of the Biodiversity Finance Initiative (BIOFIN), which is being implemented in 30 countries around the world. The aim of the analysis is to assess the amount, the area of focus and efficiency of allocated funds from all sources over the past 7 years (2008-2014).

According to the analysis, the state budget is the only guaranteed source of biodiversity funding. In the period from 2008 to 2014 the amount of biodiversity financing from the state budget funds accounted for 86% of total biodiversity funding. Nevertheless, this amount is merely 0,4%-0,8% of total government expenditures for this period. Out of remaining 14% of biodiversity funding provided by the private sector and civil society the share of international grants and non-governmental organizations (NGOs) is 7%, self-generated funds of environmental institutions – 5%, 2% was recorded as allocated by industrial companies.

The BIOFIN methodology classifies the state budget as funds allocated from the republican and local budget, whereas private funding as funds provided by international donors, local and foreign industrial and other companies, NGOs and own funds of environmental institutions generated from provision of fee-based services.

The volume of expenditures for biodiversity over the last seven years equates around 177 billion KZT (526 million USD¹). If one compares biodiversity funding in Kazakhstan with macroeconomic performance of the country for the similar period, expenditures for biodiversity are about 0,1% of GDP and have been decreasing relatively. In 2008 the given relation was 0,18%, whereas towards 2014 has decreased by up to 0,08%.

This work also presents information on future base expenditures for biodiversity in the country until 2020 with a breakdown into public and private expenditures. The term “base financing” implies business-as-usual financing in the country from all sources without fulfilling obligations under the Convention on Biological Diversity (CBD) including those related to the mobilization of financial resources for biodiversity conservation.

The BER will be used as the basis to determine the financial deficit stemming from the projected costs of the National Biodiversity Strategy and Action Plan (NBSAP), as defined in the Biodiversity Financial Needs Assessment. This deficit, in turn, will be used as part of the guidance for establishing the Biodiversity Finance Plan.

¹ Exchange rate for June 2016 is 336 KZT to the USD

INTRODUCTION

In line with the international obligations of Kazakhstan under the Convention on Biological Diversity (CBD) Kazakhstan is required to mobilize financial resources from all possible sources to achieve the country's targets for biodiversity conservation until 2020. To achieve this goal, firstly, it is necessary to identify the current level of funding. Secondly, to assess future needs and to forecast funding for biodiversity conservation. And thirdly, the difference between these indicators will allow the country to identify the expected funding gap for biodiversity conservation purposes and seek to fill the gap through increased financing or increased conservation management efficiency. For these purposes, the United Nations Development Programme (UNDP) and partners have developed the BIOFIN methodology, enabling countries to holistically assess institutional, policy and financial aspects of biodiversity conservation for the previous and future periods.

The analysis of biodiversity funding is the result of undertaken studies of funding of biodiversity conservation purposes in Kazakhstan for the period from 2008 to 2014. In accordance with the BIOFIN methodology the analysis has been prepared with a breakdown into funding from the state budget and private sector budget with the description of volumes, areas of focus and efficiency of the allocated funds.

Allocations for biodiversity expenses fall into direct and indirect expenses. Direct expenses include those expenses that are aimed at implementation of activities related to biodiversity conservation according to the intended purpose. Indirect expenses include expenses that according to the

intended purpose are aimed at implementation of activities more or less positively affecting the state of biodiversity.

Through the BIOFIN methodology, each activity is scored according to the percentage of that expenditure attributable to biodiversity and the twenty Aichi Targets, which were grouped into five categories.

Attribution of activities by the Aichi Targets and general categories was completed at the workshop held in the third quarter of 2015, which was attended by representatives of governmental agencies, the private sector and research institutes. At the workshop, industry experts were given questionnaires to assign the objectives and strategies – corresponding to the activities – included in the BIOFIN methodology.

The source of information and statistical data, presented in this analysis, are reports, materials, provided by government agencies, international organizations and industrial enterprises based on the official request of the BIOFIN project.

In order to determine the percentage attributable to biodiversity conservation, we resorted to the three main objectives of the Convention on Biological Diversity: the conservation of biodiversity, sustainable use of biodiversity, and access and collective sharing of benefits on a fair and equitable basis associated with the use of genetic resources. Thus, compliance and non-compliance with these objectives were fundamental factors in the allocation of a percentage of the costs directly and indirectly affecting biodiversity.

1. GENERAL SNAPSHOT OF BUDGETING AND EXPENDITURES AT THE NATIONAL LEVEL

This section includes an analysis of the total annual budget of the government, budgetary expenditures, foreign loans and grants, and the gross domestic product since 2008. The information has been obtained from official sources of the Statistics Committee of the Ministry of National Economy.

According to the Article 6 “General terms of types and level of the budget” of Budget Code of Republic of Kazakhstan (RK), government budget is official monetary fund of RK, which include republican and local budgets.

The republican budget is a centralized monetary fund generated from the revenues, identified by the Budgetary Code and intended to fund goals and functions of central governmental authorities, public offices that are under their jurisdiction as well as implementation of the national public policy. The republican budget is approved by the law of the Republic of Kazakhstan.

The local budget (municipal treasury) is a centralized monetary fund generated from the revenues, identified by the Budgetary Code and intended to fund goals and functions of local state authorities at regional level, city of republican status, capital city, public offices which are under

their jurisdiction and implementation of the public policy in the relevant administrative-territorial unit. The local budget is approved by decisions of oblast Maslikhats (regional executive committees), Maslikhats of the city of republican status.

Budget revenues include tax, non-tax revenues, incomes from sales of fixed assets, incomes from transfers, payment amounts of public budget loans, incomes from sales of financial assets of the state, loans.

Budget expenditures are public funds allocated on a non-returnable basis, public budget loans, acquisition of financial assets, repayment of loans.

The government’s budget for the reporting period shows steady growth. National revenues increased from 3.5 trillion KZT (Kazakhstani Tenge) in 2009 to 7.3 trillion in 2014. Over this period National government revenues increased by 109%. The budgetary expenditures for the same period grew from 3.3 trillion KZT in 2008 to 7.7 in 2014, representing a 140% increase percentage-wise, or more than doubled. Comparing revenues and expenditures of government, it seen that in 2008 was a budget surplus. From 2009 is marked by an increase in the fiscal deficit – in 2014 deficit was 1 trillion KZT (Figure 1).

Figure 1. Dynamics of revenues and expenditures of the Republic of Kazakhstan, in millions KZT

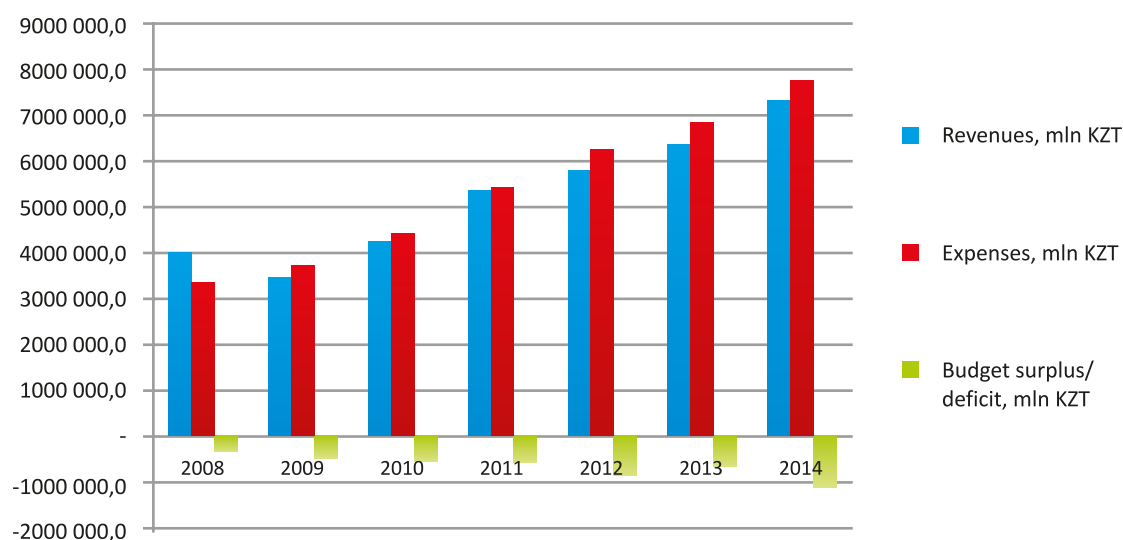
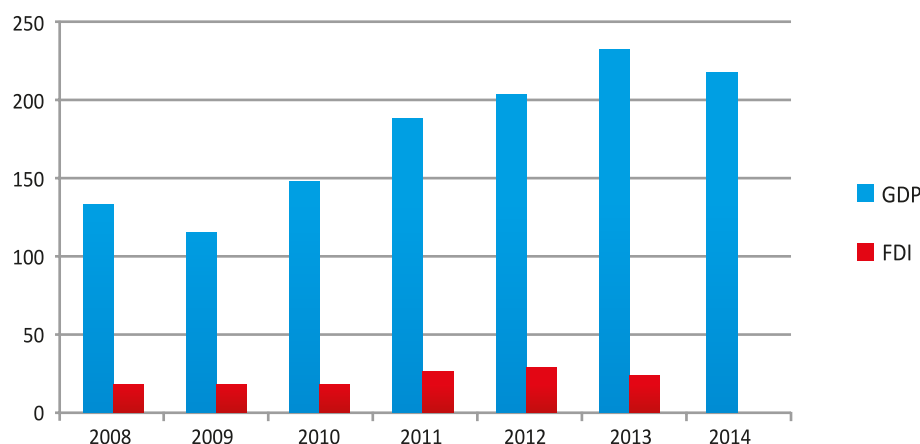


Figure 2. GDP and FDI in Kazakhstan, in billions USD



As of 2014 national GDP has grown 2.4 times as compared with 2008 and its amount in 2014 was 217.8 billion US dollars (39 040 898 million KZT). The main source of economic growth of Kazakhstan was the extraction of minerals. For example, the oil sector makes up 30% of the national GDP and about 60% of exports. Levers of growth lean on the intensive use of energy and natural resources, which makes Kazakhstan the eleventh country among the most energy-intensive countries in the world.

Large inflows of Foreign Direct Investment (FDI) into Kazakhstan peaked in 2012 and amounted to 28.9 billion US dollars. According to the National Bank, the major destination of foreign direct investments is the processing industry amounting to 68% of all foreign direct investments. The main investor in attracting foreign direct investment into the processing industry is KAZNEX INVEST JSC. Official data on FDI for 2014 are not yet available (Figure 2).

1.2. Biodiversity tax revenues

Tax revenues for the use of natural resources are carried out in accordance with the Tax Code of the Republic of Kazakhstan. The following types of taxes in the field of biodiversity go into the state budget:

- wildlife use fees,
- fees for forest uses,
- fees for the use of protected areas,
- fees for the use of navigable waters,
- fees for the use of water resources of surface sources,
- environment pollution payments.

The wildlife use fee is collected based on the wildlife use permits issued by the Committee of Forestry and Wildlife (CFW) in the field of the wildlife protection, reproduction and use. The fee for the use of rare and endangered species is established on a case-by-case basis by the Government of the Republic of Kazakhstan, while issuing permits for capture of these animals in the wild.

Payers are individuals and legal entities, gained the right for special² use of wildlife according to the procedure established by the legislative act of the Republic of Kazakhstan.

Fee rates are estimated based on the size of the monthly calculation index (MCI), set forth in the law on the republican budget and acting on the payment date.

² Special use of natural resources is defined as natural resources (in the field of wildlife, water resources, forestry and environment) being used under the permission of authorized body.

The fee for forest use is collected for the following types of forest uses in the state forest estate plots:

- 1) timber harvesting,
- 2) procurement of soft resins and timber saps,
- 3) harvesting of secondary timber resources (bark, branches, stubs, roots, leaves, buds of trees and shrubs),
- 4) collateral forest uses (haymaking, grazing of livestock, red deer breeding, fur farming, arrangement of bee houses, horticulture, melon-growing and cultivation of other agricultural crops, harvest and collection of medicinal plants and technical raw materials, wild fruits, nuts, mushrooms, berries and other food products, moss, forest litter and fallen leaves, rushes),
- 5) the use of the state forest fund plots for:
 - culture and health, recreational, tourist and sporting purposes,
 - game husbandry needs,
 - scientific-research purposes.

The right for forest exploitation in the state forest land plot is given based on the felling license and forest usage permit, issued in the manner and time, that are established by the forest legislation of the Republic of Kazakhstan.

Payers are state forest owners, individuals and legal entities, gained the right for forest exploitation according to the procedure established by the legislative act of the Republic of Kazakhstan. The private forest owners exercising forest exploitation in the private forest land plots owned by them or under the long-term land-tenure in accordance with the Land Code of the Republic of Kazakhstan, with designated purpose for forest cultivation do not pay the fee for forest use.

The fee for the use of protected areas is charged for the use of protected areas of the Republic of Kazakhstan with the exception of the territories of state natural monuments, state nature sanctuaries, state conservation areas, for scientific, environmental educational, cultural and educational, tourist, recreational and limited commercial purposes, prescribed by the Law of

the Republic of Kazakhstan "On protected areas".

Payers are individuals and legal entities using protected areas of the Republic of Kazakhstan. Those individuals, who permanently residing in settlements and/or having allotments that border on the PAs do not pay any fee.

The fee rate for the use of PA is set in amount of coefficient of 0.1 of monthly calculation index established by the law on the republican budget and having an effect on the 1st of January of the relevant financial year in which it becomes necessary to use protected areas, for each day of stay in the protected area.

The fee for the use of navigable waters is to be provided based on the permit issued by the authorized state body related to transport control for each calendar year (Committee of Transport of the Ministry of investment and development).

Payers are individuals and legal entities using navigable waters of the Republic of Kazakhstan.

The fee rate is set in amount of coefficient of 0.26 of monthly calculation index established by the law on the republican budget and having an effect on the 1st of January of the relevant financial year in which it becomes necessary to use navigable waters, per 1 gross register ton.

The fee for the use of water resources of surface sources is charged for special water use from surface sources with consumptive or non-consumptive water use for industry, transport and other enterprises.

Special water use is realized based on the permit issued by the authorized state body in the field of the use and protection of water resources.

Payers are individuals and legal entities using water resources of surface sources (hereinafter referred to as primary water users):

- 1) using fixed, versatile and floating structures with mechanical and gravity water intake from surface and sea waters,
- 2) using hydroelectric power stations,
- 3) using water facilities for fish farm management,
- 4) for fishing
- 5) for water transport needs.

The fee rate is set by local representative bodies of oblasts (regions), cities of republican status and capital city based on the methodology for computing charges approved by the authorized state body in the field of the use and protection of water resources (Department of Natural Resources and Environmental Management).

Environment pollution payments are charged for environmental emissions pursuant to special natural resource management. Special natural resource management is realized based on the environmental permit issued by the authorized state body in the field of environment or local authorities of oblasts (Department of Natural Resources and Environmental Management), cities of national status and capital city, with the exception of pollutant emissions from mobile sources.

Payers are individuals and legal entities, carrying out activities within the territory of the Republic of Kazakhstan pursuant to special natural resource management.

Tax units are actual environmental emission volumes within the limits of and/or above environmental emissions specified by regulatory standards:

- 1) pollutant emissions,
- 2) pollutant discharges,
- 3) disposed production and consumption wastes,

The fee rate is set based on the amount of monthly calculation index established by the law on the republican budget on the first date of the tax period.

According to the biodiversity tax revenues analysis for 2008-2014 of the state budget over 90% comes from environment pollution payments (Figure 3).

The fee for environmental emission paid by nature users within the limits of normative standards set out in the environmental permits, is charged based on the pollutants and types of wastes. The minimum fee rates for environmental pollution is 0,01 of monthly calculation index (MCI) for methane. The maximum rate is 13402 of MCI for copper discharges. Discharges are made according to fixed limits, in case of pollutant emissions exceeding regulated limits, fees are charged tenfold.

Compared to environment pollution payments, the situation with payments for the use of wildlife and forest resources differs radically. So, fee rates for hunting of any type of animals is from 0,01 to 16 of MCI. Fee rates for forest resources are from 0,1 to 3,24 of MCI.

Fees for the use of natural resources compared to emissions show how the biodiversity of the country is underestimated.

Figure 3. Dynamics of tax revenues to the state and local budget coming from biodiversity-related fees, thousands KZT

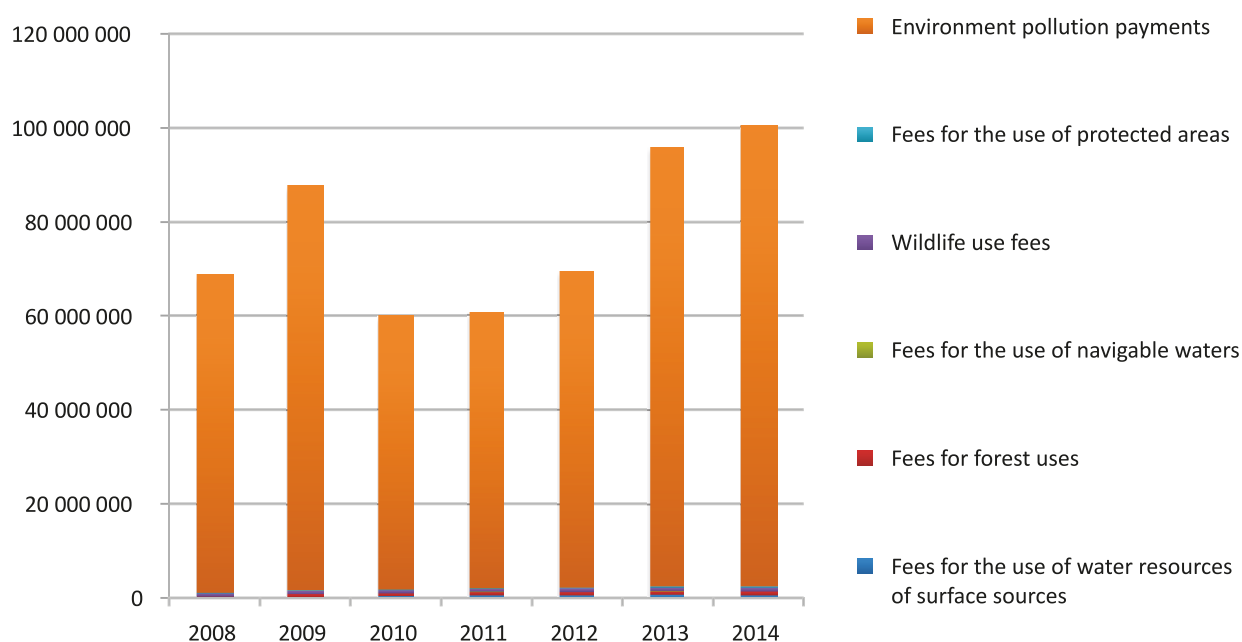


Table 1. Tax revenues to the state and local budget coming from biodiversity-related fees, thousands KZT

Fees	2008	2009	2010	2011	2012	2013	2014
Fee for the use of water resources of surface sources	506 131	475 003	696 825	892 749	810 516	954 237	932 124
Fee for forest use	135 520	604 369	634 020	727 747	789 935	776 186	734 377
Fee for the use of navigable waters	12 266	13 313	10 559	18 484	15 687	59 734	28 449
Wildlife use fee	656 480	703 745	645 976	603 532	691 938	759 444	797 459
Fee for the use of protected areas	89 243	110 667	123 019	153 636	132 720	217 439	257 804
Environment pollution payments	67 393 668	85 953 327	57 981 746	58 466 320	67 182 694	93 179 270	97 711 597

2. BASELINE EXPENDITURES ON BIODIVERSITY AND REVIEW OF EXPENSE EFFICIENCY

This section reviews the expenditures directly and indirectly related to biodiversity, by both state and private organizations. State expenses include the programs and subprograms implemented by the national and local budgets which form the government budget of the country. Private expenses may include the own resources of Protected Areas (PAs) and Hunting Concessions (HC) generated from paid services, the funds allocated by international and other organizations and the costs for environmental activities of the industrial companies.

2.1. Funding biodiversity conservation from the republican budget

The main state authority carrying out most of the activities for the biodiversity conservation is Committee of Forestry and Wildlife (CFW) under the Ministry of Agriculture (MA) of the Republic of Kazakhstan (RK). It performs implementation, control and supervisory functions in the fields of forestry, PAs and wildlife.

Additionally, the Ministry of Energy carries out the activities on environmental protection, and the Department of Presidential Affairs funds one PA and the Schuchinsk-Borovoye resort zone.

The Ministry of Education and Science and the Ministry of Investment and Development perform comprehensive management, but the activities for biodiversity conservation were not reported to have been carried out during the reporting period.

In accordance with the law, the public funding comes from the republican and local budget. Funding is performed based on the budget request drafted by the programme administrators. Budget requests are prepared as per the Budget Request Drafting and Submitting Rules. These rules identify the structure, procedure of preparation and submission of budget request by administrators of budget programmes for the next planning period. The primary goal of budget request drafting is to justify volumes of expenditures while making

republican and local budget estimates based on the quantitative and financial information on necessary resources and results of implementation of budget programmes.

For estimating budgetary expenditures relevant administrators of budget programmes submit budget requests to the central competent authority related to budget planning by the 15 of May of the current fiscal year. A budget request is drafted within the limits of expenditures of administrators of programmes, limits for new initiatives.

The formation of budget requests takes into account proposals of both primary environmental institutions and regional territorial inspection centers (RTIC), specialized subordinate project agencies. Then, the so-formed budget requests are discussed by the Republic Budget Commission (RBC) and then defended by the cabinet in the Parliament. Once the Law on the State Budget of Kazakhstan is adopted for the year, the biodiversity activities included in that law become mandatory.

The central budget plans for the biodiversity activities in the following sectors: Protected Areas and wildlife, Forestry, Fisheries, Water Management, Agriculture, and Environmental Protection. Next, we will review the financing of these sectors.

Protected Areas and Wildlife

An essential element in the conservation of biodiversity in any country is the Protected Area System. Currently, the system of PAs of Kazakhstan includes 10 reserves, 12 national parks, 2 regional parks, 5 nature reserves, 26 natural monuments, 50 fauna sanctuaries and 5 protected areas, with a total area of 238 thousand km² or 8,7% of the country's area. Additionally, a zone of 100 million ha is being managed for the conservation of the saiga antelope. As one of the most widely used mechanisms in achieving

environmental objectives, PAs play an important role in the implementation of national biodiversity conservation policies and are a testing ground for scientific research, nature conservation, ensuring

environmental quality, education, tourism and recreation, protection of natural and cultural sites and sustainable use of natural resources.

Table 2. Structure of Kazakhstan's PAs

Protected Areas	Description	Area, thousand km ²
Reserves	PAs with differentiated types of regimes of protection, destined for conservation and restoration of sites of the state nature reserve fund and biological diversity in land parcels and water space.	113
National and regional parks	PAs in which not the natural complex is protected, but some of its part: plants, animals or their certain species, or certain historical and memorial, or geological features.	61
Nature reserves	It is a particular type of PA envisaged by the law of the country. Nature reserves are legal entities and are established in the form of the state institution. According to the IUCN definition equates to the VI category – “Sustainable natural resource management site: operates mainly for the sustainable use of natural ecosystems”.	23
Protected areas	PAs, where human activity is limited (or prohibited) in order to protect the environment. Visit of this territory by tourists or nature lovers is not allowed.	25
Fauna sanctuaries	The site of the area (waters) where its entire natural complex is kept in natural state, whereas hunting is prohibited. Aside from that, any human economic activities are prohibited within the area, whereas lands are withdrawn in perpetuity.	16
Total Area		238

PAs and wildlife have been financed from the republic budget across seven programs described here.

Program 040 – Conservation and development of PAs and wildlife. Twenty-six PAs are maintained through this program. From 2008 to 2014, 35,507,278 thousand KZT was allocated for these purposes. Annual funding under the program peaked in 2013 and amounted to 7,315,570 thousand KZT. In general, over the past 7 years funding has doubled (Figure 4).

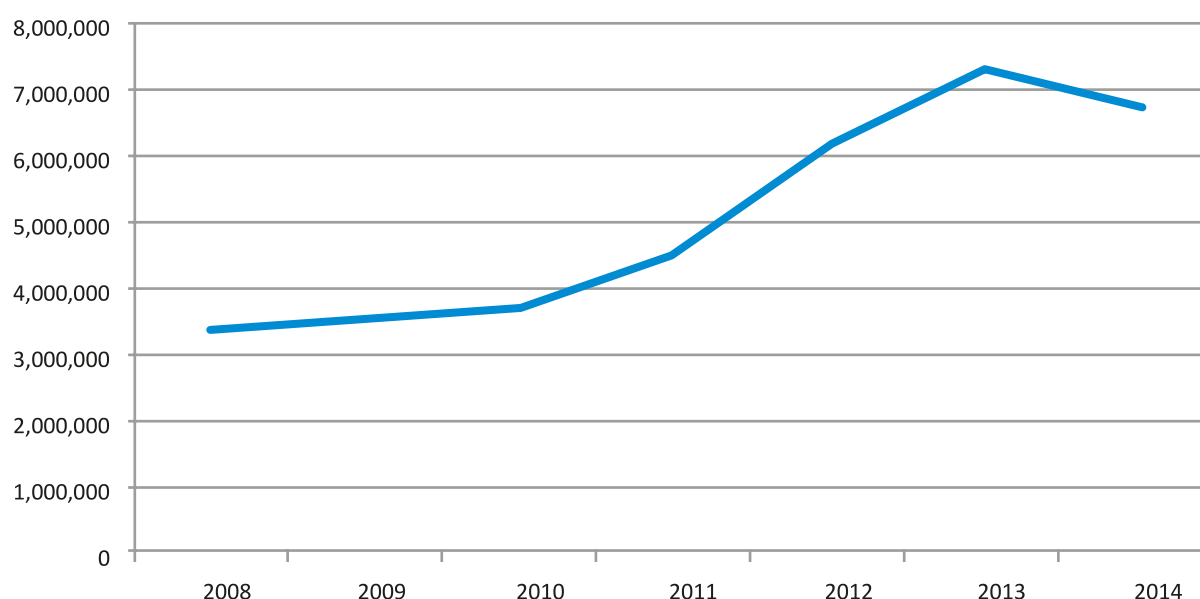
It should be noted that the bulk of the program's expenditures accounts for the salaries of regular

employees of PAs. The level of compensation of PA employees remains low, implying turnover and low skills of new workers, which, in turn, directly affects the effectiveness of PA management.

Each year, part-time workers are hired for the fire season (April – November) and are paid by both the national budget and from the PAs' own income – generated by paid services.

The budget of this program includes funds for the purchase of food for inspectors, feed for horses, in some PAs – food for animals kept in cages, the purchase of first-aid kits for drivers and inspectors of PAs, and fuel not in excess of 40 MCI (monthly

Figure 4. Dynamics of PA funding under Program 040 - Conservation and development of PAs and wildlife, thousands KZT



calculation indexes). Since the funds for these expenses are minor, the main amount is covered by the extra-budgetary revenues of PAs. In addition, funds are allocated for PA employees to tailor and purchase their uniforms, which are renewed and purchased annually. Logistical support, including purchases of intangible assets, utilities, and rent, is included in the relevant expenditures.

Given the above, it should be noted that the funds from the central budget mainly cover basic operating first-need costs, like salary, compensation, petroleum and other. Whereas important activities such as fire-fighting and forest restoration, research and environmental outreach campaigns are financed with whatever funds remain resulting in variable financing.

Program 032 – Construction and renovation of infrastructure of forestry and PAs. Annually, funds are allocated for erection of cordons and other maintenance buildings and structures. Thus, the maximum amount of allocations over seven years equaled 275 472 thousand KZT (2008). Dynamics of funding are shown in Figure 5.

Program 028 – Development and introduction of the IT system to monitor biodiversity in pilot PAs of Kazakhstan. The program was co-financed by UNDP.

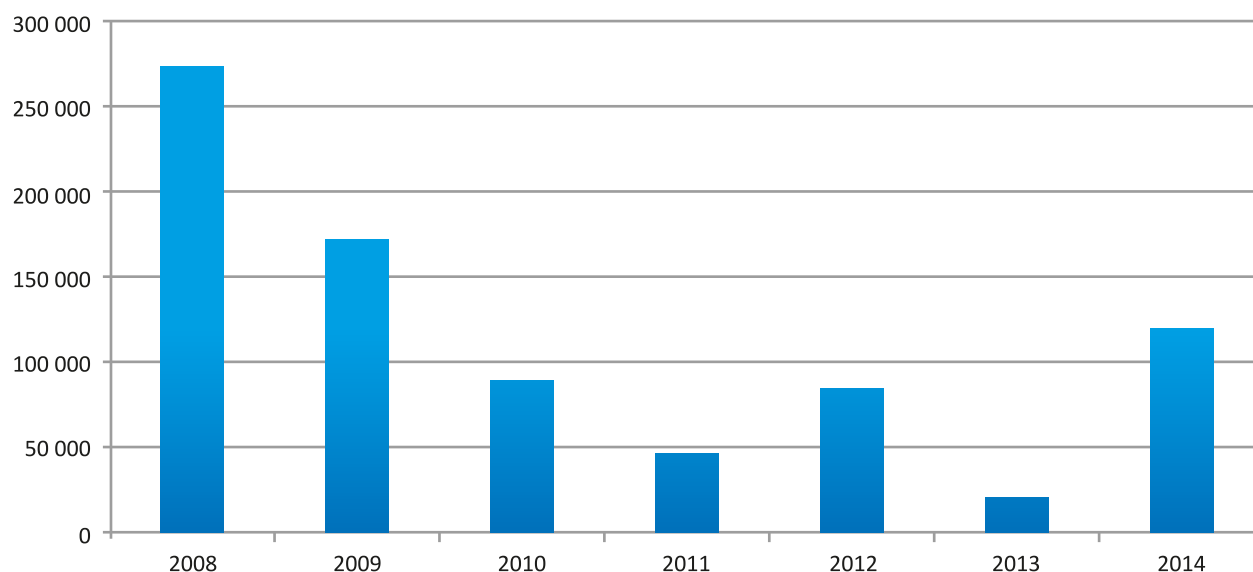
As a result of this program, from 2008 to 2014, the biodiversity monitoring system was implemented in three pilot PAs. The central budget provided 153,679 thousand KZT, whereas UNDP provided 75,311 thousand KZT. This project was successfully realized in pilot areas; the current plans are to cover all the environmental institutions.

Program 070 – Forest and hunting management, forestry design, stock-keeping and biologic substantiation studies on forests and wildlife. The program is designed to promote conservation and sustainable development of forestry, wildlife and PAs, and has three subprograms: 100 – Conservation of sites of the nature reserve fund, 101 – Conservation, reproduction and rational use of forest resources, 102 – Conservation, reproduction and rational use of wildlife resources.

Funding under the subprogram 100 – «Conservation of sites of the nature reserve fund» implies development and adjustment of:

- scientific feasibility and feasibility study for the PAs created;
- documentation to maintain forest inventories of PAs;
- staffing requirements for additional employees in the governmental entities of the forestry and PAs.

Figure 5. Dynamics of funding of construction and renovation of PA facilities, thousands KZT



Subprogram 102 - «Conservation, reproduction and rational use of wildlife resources» funds the following:

- scientific research on rare and endangered ungulates including saiga;
- keeping stock of rare and endangered ungulates.

Monitoring of rare and endangered ungulates;

- biologic studies to justify elimination of wildlife resources;
- interfarm hunting management and biologic and economic analysis of the reserve stock of hunting areas.

This subprogram finances conservation and restoration of the population of saiga, which is done by "Production Association Okhotzooptom", a specialized Republican State budget-supported Enterprise. The entity protects rare and endangered species of wild ungulates in 7 strongholds. The area under protection is 100 million hectares. Field workers are equipped with satellite navigation systems, night-vision devices, cameras, satellite and telephone radio, video cameras, and off-road vehicles. Also was contracted the service of planes and helicopters.

Table 3. Financing under «Keeping-stock and biologic substantiation study» subprogram, thousands KZT

Subprogram	2008	2009	2010	2011	2012	2013	2014
100 – Conservation of sites of the nature reserve fund	35 163	36 100	29 088	48 458	30 238	20 537	33 597
102 – Conservation, reproduction and rational use of wildlife resources	63 456	89 802	96 426	120 438	102 556	90 693	101 253
073 – Conservation and restoration of the population of saiga, rare and endangered animals	192 062	221 159	250 078	250 087	677 927	250 087	800 169

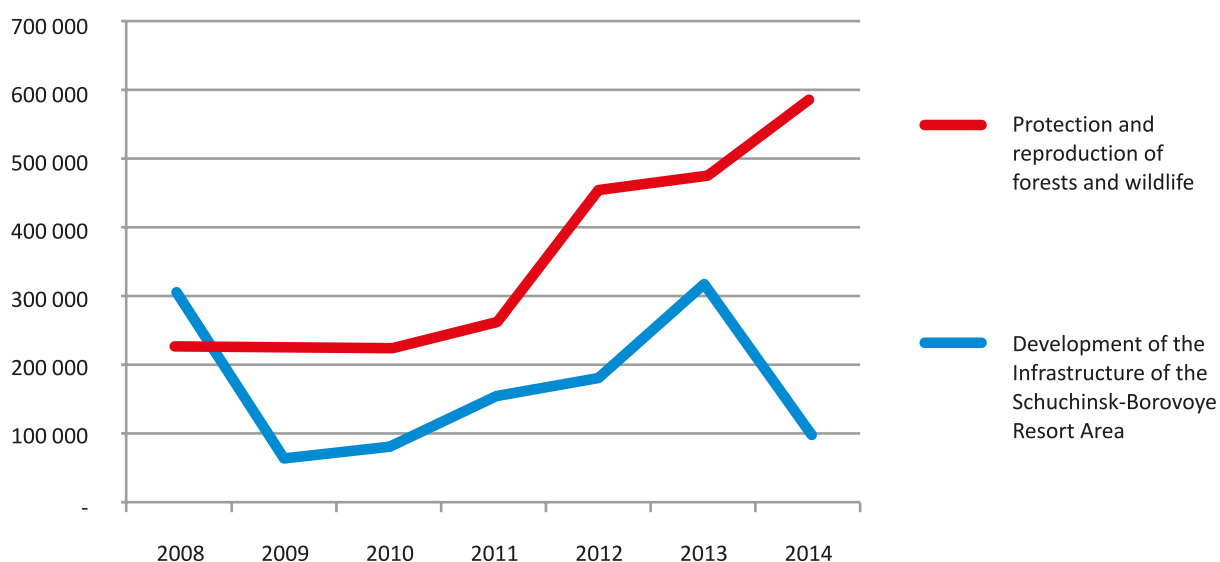
The Department of Presidential Affairs (DPA) funds two activities on PAs and tourism. «Burabay» SNNP is funded under the «Protection and reproduction of forests and wildlife» Program. Under this program, employees protect forests and fauna, and conduct research in the field of conservation, protection and reproduction of forests, wildlife and water resources.

In relation to tourism, DPA administers the «Development of the Infrastructure of the Schuchinsk-Borovoye Resort Area» Program. The program is designed to develop internal tourism with the involvement of main players of the tourism of the Akmola Oblast, including national nature parks, tour operators, health centers, schools and colleges, and craftsmen. Within this activity,

biodiversity accounts for 10%. The program has become a tool for the rapid development of the resort accompanied by the construction of tourist and recreational facilities and increase in the flow of tourists and vacationers.

Financing of the program to maintain Burabay State National Nature Park (SNNP) has shown steady growth; since 2008, the funding has increased 3 times, compared to 2014. Financing of the program to develop the infrastructure of the Schuchinsk and Borovoye Resort peaked in 2008 – 301 758 thousand KZT and in 2013 – 317 025 thousand KZT. In 2009, construction of the Astana-Schuchinsk Toll Road was completed under this program.

Figure 6. Dynamics of funding activities administered by the DPA, thousands KZT



Forestry

The total area of the State Forestry Estate (SFE) is 29,285.4 thousand hectares or 10.7% of the area of the country. Tree-covered areas occupy 12,593.9 thousand hectares or 43% of the total area of these forest reserves. The percentage of forested areas relative to total land area in Kazakhstan is 4.6%.

Statistics show that indicators of forest resources and biodiversity conservation are steady, overall.

Over the last 5 years, the total forest area and area of reforestation have increased. Total stock of standing timber has increased by a small amount.

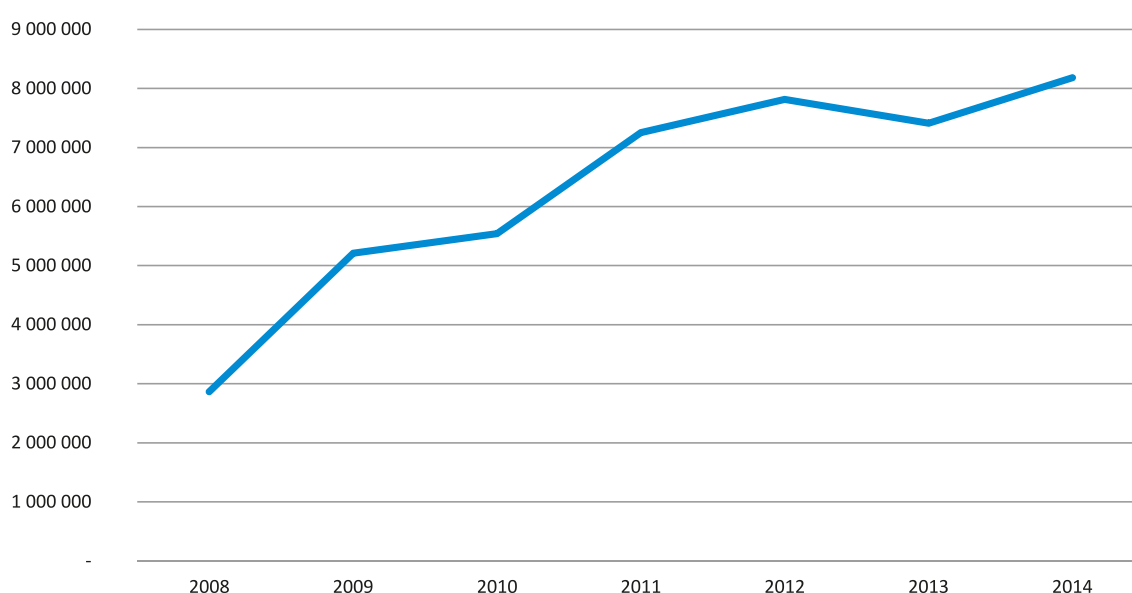
Funds are allocated from the republic budget under the forestry related budget programs. Subordinate organizations of the Committee of Forestry and Wildlife (CFW) implement measures on forestry. In total, from 2008 to 2014, seven programs and four targeted transfers have been implemented in the forest sector.

Over 7 years, funding of forestry has increased by 51%. Funding peaked in 2014 at 8 183 550 thousand KZT (Figure 7). An increase in funding resulted in an improvement in performance of the forestry – in 2014, compared with 2010, number of forest fires went down by 10%, the area of fires went down by 74% and the damage caused by fires went down by 85%. In this regard, we should note the effectiveness of countering the fires. Operational data of the CFW for 2014 testify to the improvement in all the indicators analyzed. Because most of the forestry related activities of the CFW involve improving forest health,

expanding forest area, and reducing fires, these expenditures were considered direct biodiversity expenditures and included at 100%.

The main funds allocated from the republic budget for the forest sector are expended on the creation of the green belt around Astana. This program is implemented by «Zhasyl Aimak» Republican State Enterprise; vegetation in the current year amounted to 5 thousand hectares. In total, 70 thousand hectares of forest crops have been planted since 1997.

Figure 7. Dynamics of forestry funding from the republican budget, thousand KZT

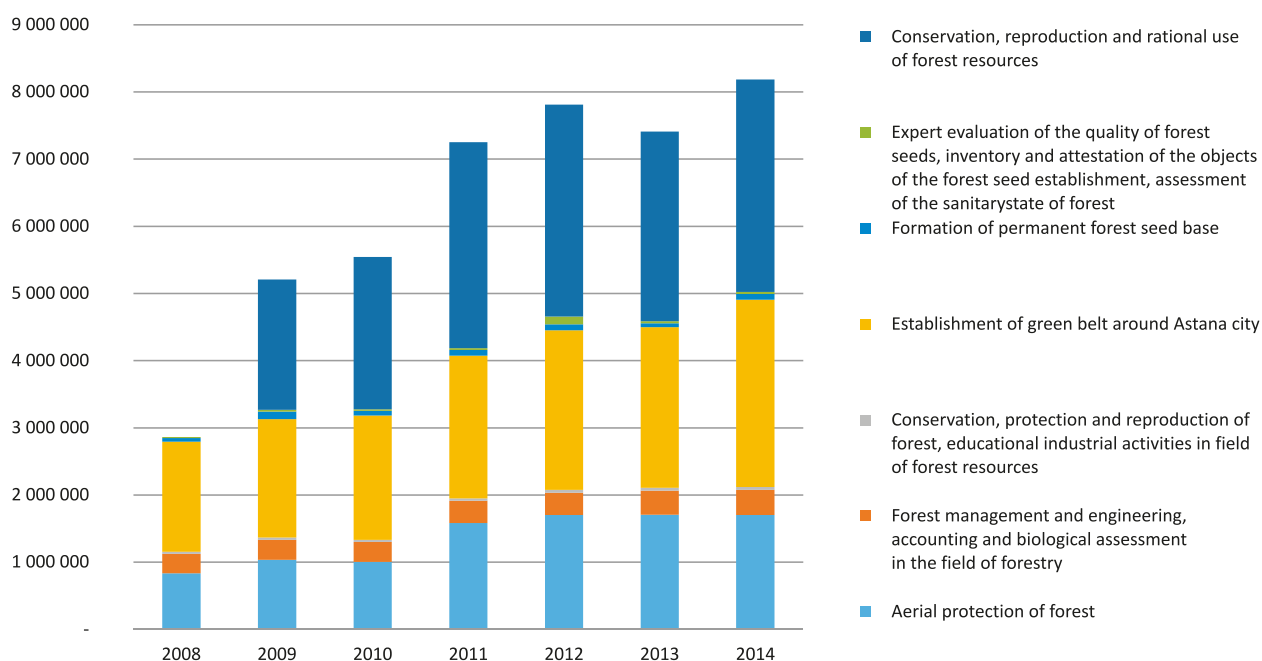


The air-borne protection program aims to protect forests from fires, forest offences and forest violations using aircrafts to observe the areas. The entity responsible for these activities is the «Kazavialesoohrana» Republican State Communal Enterprise, which extinguishes forest fires, detects damage to vegetation, keeps stock of plantings and supervises conditions of forests. This subordinate entity sends a budget request based on the number of hours required to fly over all the areas under supervision in the fire season, corresponding to the relevant standards and regulations on the protection, preservation, and

reproduction of forests and afforestation on the lands of the national forest resources.

Of all existing activities, the program to preserve forests and increase reforestation in the county is not only funded by the central budget, but is also funded by the external loans and grants of the Global Environment Facility (GEF) and the World Bank. Under this program, in 2014, vegetation was restored in the dried-out bottom of the Aral Sea by saksaul (Haloxylon) across an area of 10.6 thousand hectares. In total, 56.5 thousand hectares of plants have been introduced in the dried-out bottom of the Aral Sea since 2008.

Figure 8. Forestry funding by programs, thousand KZT



From RB allocated targeted transfers to the regional budgets for forest conservation and reproduction. The administrator of targeted transfer in field of forestry is FWC.

- Targeted current transfers to the budget of the Akmola Oblast for planting forests along the Astana-Schuchinsk Toll Road in the segment between Shortandy and Schuchinsk are aimed to develop the land-use design, soil preparation, purchase of machinery and equipment, tree planting and replenishment of tree plantations in the Shortandy direction.
- Targeted current transfers to the budget of the Kostanay Oblast for fitting out efforts to conserve, protect and reproduce forests are

aimed at provision of material and technical facilities (fire extinguishing equipment) for forestry units in Kostanay Oblast.

- Targeted current transfers to the budget of Astana for creation of the green belt are aimed at creation of urban forests in the city of Astana.
- Targeted current transfers to the budget of the Akmola Oblast are aimed for compensating losses of land users or land owners resulting from appropriation of land lots for the green belt around Astana.

Below are the figures on the transfers from 2008 to 2014 for the total amount of 16 557 880 thousand KZT.

Table 4. Forestry funding through transfers, thousand KZT

Program	2008	2009	2010	2011	2012	2013	2014
020 (026) – Targeted current transfers to the budget of the Akmola Oblast for planting forests along the Astana-Schuchinsk Toll Road in the segment between Shortandy and Schuchinsk	12 517 664		56 072	481 034	580 070	291 669	127 860
208 - Targeted current transfers to the budget of the Kostanay Oblast for fitting out efforts to conserve, protect and reproduce forests					400 000		
209 – Targeted current transfers to the budget of Astana for creation of the green belt					756 695	971 974	
Targeted current transfers to the budget of the Akmola Oblast for compensating losses of land users or land owners resulting from appropriation of land lots for the green belt around Astana						50 067	324 775

Funding of the forest sector from the budget in the framework of the above-mentioned government agencies and enterprises is a guaranteed public contract and is planned annually for a three-year period in accordance with the budget legislation of the Republic of Kazakhstan.

Fisheries

The fisheries sector in Kazakhstan is managed in accordance with the current legislation on conservation, reproduction and use of wildlife resources.

Special use of wildlife resources is allowed only in designated bodies of water (sites). To date, 1,043 users have signed contracts to operate fisheries at over two thousand reservoirs (sites). Upon signing their contracts, users assume responsibility for

conserving, reproduction, research and upgrading the facilities for ten years with their own funds. It was not possible to generate an estimate of these expenditures.

In order to regulate and conserve the stock of fish resources, the Government sets annual limits on catching of fish and other water animals in commercial ponds and areas based on biological studies and state environmental assessments.

Two programs (reproduction of fish resources and state inventory of fish resources) and three targeted transfers have been in effect since 2008 to 2014.

As can be seen from Figure 9, funding of fisheries peaked in 2012 reaching 1 561 453 thousand KZT in two programs. In total, dynamics of allocations from the RB for inventorying and reproduction of fish resources shows instability of funding.

Figure 9. Fisheries funding from the republican budget, thousands KZT

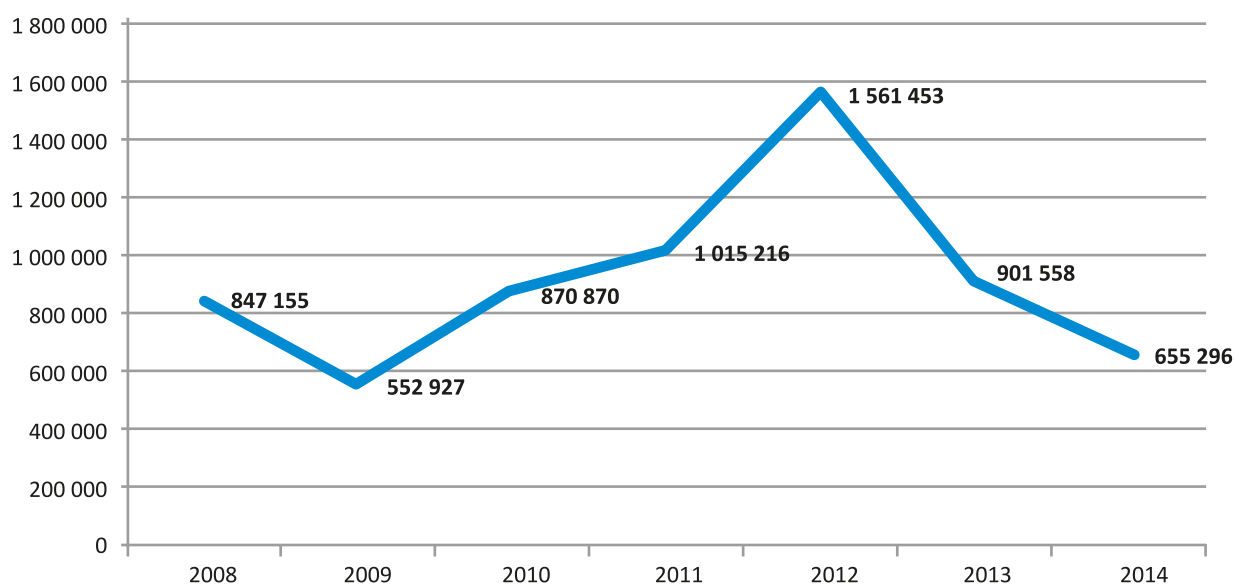


Table 5. Fisheries funding through transfers, thousand KZT

Program	2008	2009	2010	2011	2012	2013	2014
012 – Targeted current transfers to the budget of the Atyrau Oblast for purchasing special equipment and marine equipment for the entity of state monopoly in the field of fisheries	38 159	44 400	772 832				
018 – Targeted current transfers to regional budgets, budgets of Astana and Almaty to subsidize increases in the productivity and quality of commercial fish farming	4 451 342			156 596	264 158	264 158	264 158
Targeted current transfers to the budget of the Atyrau Oblast for increasing of the authorized capital of a public utility company «Zhaiyk Balyk»				2 000 000			

As seen from Table 5, activities amounted to 8 255 803 thousand KZT. Particular attention is paid to the reproduction of sturgeon. To increase production of the juvenile sturgeon population at the Atyrau and Ural-Atyrau sturgeon hatcheries (Atyrau), targeted transfers were made to upgrade

special equipment and marine equipment during three years (2008-2010). For five years, subsidies were allocated to increase the productivity and quality of commercial fish farming in Astana and Almaty.

Water management

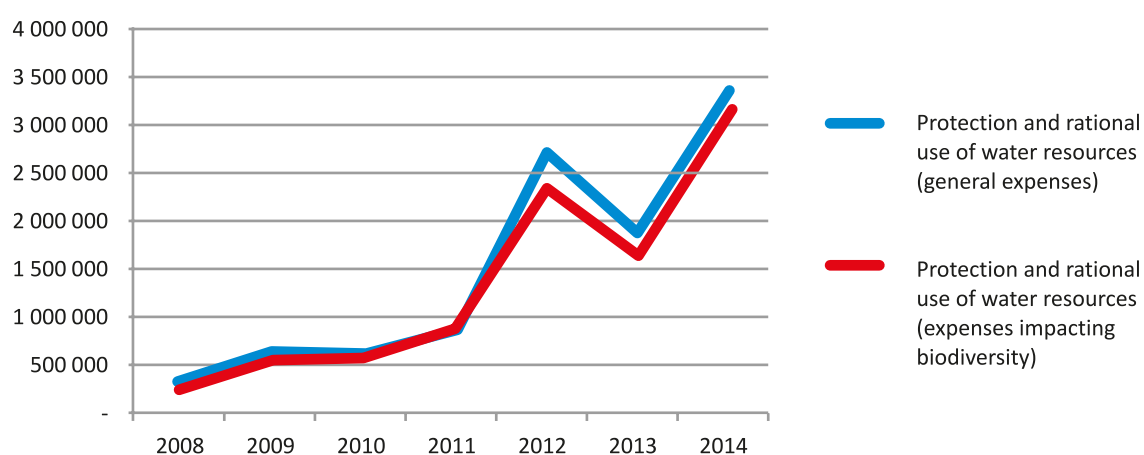
Surface water resources of the state in an average year are estimated at 100.9 billion cubic meters (bcm), of which 56.5 bcm are generated within the boundaries of Kazakhstan and 44.4 bcm come from neighboring countries. The distribution of water resources in Kazakhstan is extremely uneven, which is a major factor limiting sustainable economic development in many regions.

The Water Resources Committee (WRC) is a competent and authorized entity responsible for implementation and supervision of the use and conservation of the water resources. Over the period analyzed, the WRC implemented four programs and one targeted current transfer of

funds for the protection and development of water systems with impacts on biodiversity.

The Protection and Rational Use of Water Resources Program is aimed to ensure sustainable and balanced use of water resources and is the main tool to protect and regulate use of water resources in Kazakhstan. The program is fully funded from the national budget. This program has three subprograms: Development of schemes of balanced water use and requirements on conservation and use of water resources, maintaining state water inventory, and flow augmentations.

Figure 10. Funding under the water management program with direct and indirect expenses on biodiversity, thousand KZT



Funding under this program for the period between 2008 and 2014 was as follows:

The amount of expenditures attributable to biodiversity has been determined on the basis of the costs of sub-programs. Fifty percent was assigned to the subprogram “Development of schemes of water balancing and requirements”. These subprograms include activities to measure water resources and their quality, supervise consumption by industries, and predict changes in water levels. These activities are essential for conservation of biodiversity.

One hundred percent was assigned to the subprogram “Environmental releases” due to the

impact on biodiversity, as releases into rivers to replenish the levels are very important for the flora and fauna inhabiting the floodplain landscape. After the collapse of the USSR, environmental releases of water in Kazakhstan fell sharply, and then completely ceased, which led to the death of fish and stopped birds from nesting. Environmental releases resumed in 2006 and currently the ecosystems are recovering. It should be noted that expenses under the Environmental releases subprogram have sharply increased since 2012, which is beneficial to biodiversity.

Percentage share for the Water Inventory Subprogram equaled 0%, since experts did not identify any impact on biodiversity in the expenses.

The Syr Darya Control and Northern Aral Sea Project should minimize the probability of flooding of communities of the Aral Sea region through the construction of hydraulic structures for the stabilization of the level of the northern part of the Aral Sea and the regulation of water flow through the Syr Darya River. The project was implemented jointly with the World Bank and is one of the most successful in terms of the impact on biodiversity (100%) among the water management programs. Thanks to the project, the water level in Small Aral rose from 39 to 42.2 meters over 5 years and is now 25 km closer to Aralsk. Another result of the project, is that the capacity of the Syr Darya River has increased, the dried-out bottom of the Aral Sea has been covered with a mirror of water, leading to the decrease in mineralization, which has helped preserve the northern part of the sea. Moreover, the project helped restore biodiversity with the reintroduction of 14 species of fish from the 38 species of fish that had disappeared from the sea.

«The development of groundwater protection and treatment of industrial waste in Ust-Kamenogorsk» Program aims to prevent contamination of groundwater and further migration of the plume of toxic wastes towards residential areas, municipal sources of drinking water and the Irtysh River. Since the program is being implemented jointly with the World Bank, we can review the project by components:

- reduction of the level of heavy metals and other hazardous pollutants in groundwater, thereby reducing the risk of contamination of soil and groundwater of the city, drinking water wells, and surface waters of the Irtysh River;
- quantitative index of closed industrial landfills (ha);
- prevention of further contamination of groundwater and aquifers by monitoring and identifying high-risk landfills located within the city;
- groundwater quality monitoring system is now in place, and now local institutions are able to receive samples and test water.

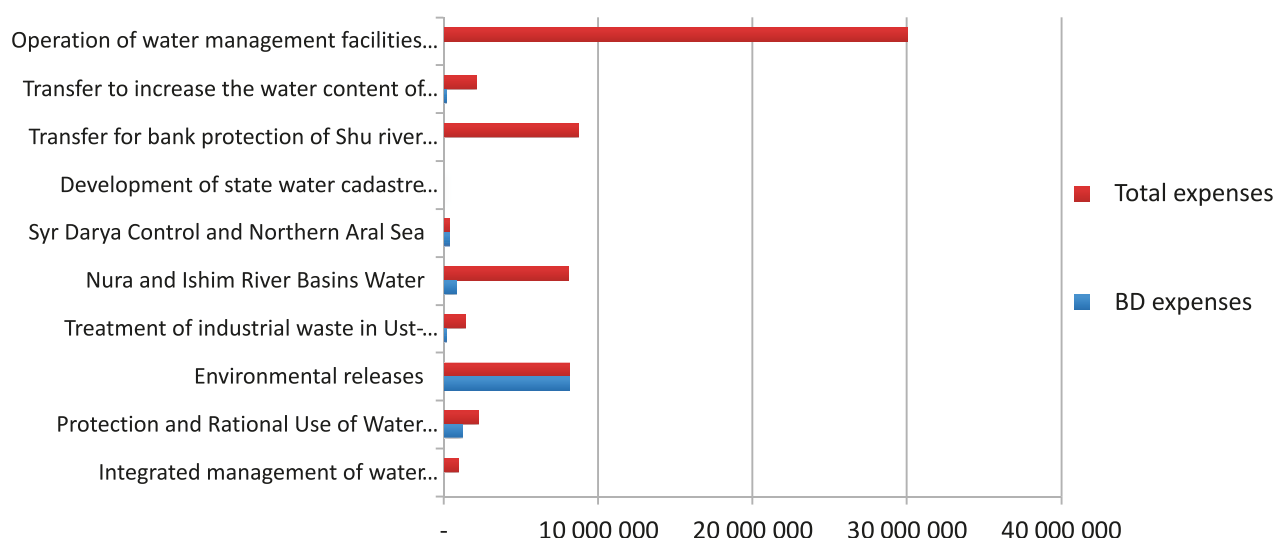
According to these four components, we may conclude that the program is designed to ensure social and environmental welfare in the region. The expert identified 10% of the program of impact on biodiversity.

The Nura and Ishim River Basins Water Management Project is aimed at improving the living standards of people living in the basin of the Nura River by cleaning the river and surrounding areas from severe mercury contamination, which will lead to a safe, effective, and less costly alternative source of water supply to meet the growing needs of local water users, as well as to resume control of the flow in the river for flood management and environmental purposes. Like the previous program, this is co-funded as a loan from the World Bank and is aimed to promote social and environmental development. The percentage of impact on biodiversity is 10%.

In 2014, three check dams, twenty-two diverging walls and two protection embankments were built to increase the water supply for communities, stabilize the water conditions, and enhance the ecosystem in the delta of the Usolka River; efforts also involved bottom dredging and cleaning along 24.7 km. The works were funded from the targeted current transfers to the budgets of Astana and Almaty to increase the rate of stream flow of the surface water resources. Based on the expenses, 5% of the cost of funding has been attributed as a beneficial effect on biodiversity.

Figure 11 schematically shows the total and direct expenses and the expenses having an impact on biodiversity under the above-mentioned programs. Rehabilitation and management of the environment of the basins of Nura and Ishim were undertaken over six years with the total amount of 8 858 397 thousand KZT in funding from the national budget, including 805 309 thousand KZT of costs impacting biodiversity. The program for the conservation of the northern part of the Aral Sea has received 631 572 thousand KZT. The environmental project in Ust-Kamenogorsk is designed to last for seven years, including 2015, with republic funding of 1 542 262 thousand KZT.

Figure 11. Funding of water management programs with indirect and direct effect on biodiversity, thousand KZT



Agriculture

Agriculture is one of the key sectors of the national economy. As one of the essential activities of the economy, it possesses a large potential for development, while the weather conditions make it possible to grow crops inherent to the moderate climatic zone as well as raise livestock.

Along with this, agriculture is in need of new facilities and equipment, water-conservation technologies, transition to biological (organic) methods of controlling weeds and pests and more rational use of agricultural lands. All of these challenges have an effect on biodiversity and if poorly managed lead to degradation and desertification of soil.

Within the industrial state program “Agrobusiness 2020” providing for the development of the agro-industrial complex of RK for 2013-2020, the support is provided for cattle breeding, crop production and processing. One of the mechanisms includes subsidies aimed at increasing the economic availability of the goods, works and services in crop production.

Subsidizing crop production may have positive and negative impacts on biodiversity in the country. The current target financial transfers are aimed at increasing the quality of competitiveness, crop yields, profitability and

efficiency of crop production, produced by the domestic manufacturers. The programme is implemented through state support to the local executive authorities aimed at increasing the water supply for irrigated lands. The transfer has three objectives:

- establishment and growing of the perennial plantations of fruit and berry crops and grapes,
- support of seed production development, and
- subsidizing of water supply services.

Establishment and growing of the perennial plantations of fruit and berry crops and grapes

In terms of development of the seed industry and cultivation of crops, arrangements were made to reimburse the full cost of establishment of perennial plants of fruit and grapes, depreciate cost (up to 40%) of seedlings of fruit and grapes, and produce original and elite seeds sold by domestic agricultural producers. The aim of subsidies is the increase of the attractiveness of investment in business growing perennial plantations of fruit and berry crops and grapes, which should subsequently lead to the increase of the perennial plantation area. However, by

the statistical data, this did not occur, although the subsidies of the plantations are issued for the areas that are 3-43% of the total harvested acreages for the plantations. In this regard we can conclude that subsidy is not effective enough to achieve the desired scale impact.

It should be noted that this type of subsidy has a positive influence on conservation and restoration of agro-biodiversity by increasing the areas of perennial fruit plantations. Due to the insufficient efficiency, the impact on biodiversity was calculated as 30% of the total funding amount. The biodiversity related amount of funding for the analyzed period was 1 553 762 thousand KZT and total investment was 5 179 205 thousand KZT.

Seed production development support

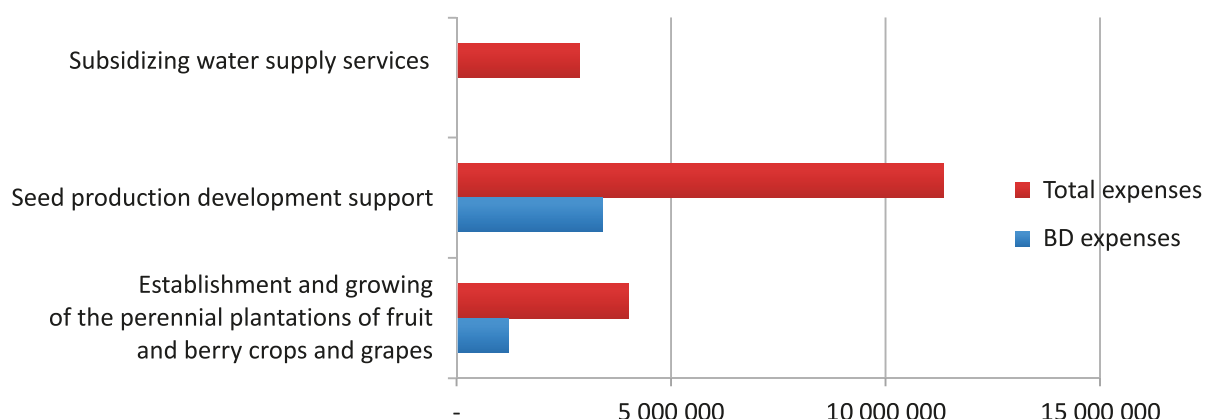
Seed production development support is aimed at reducing the cost of elite seeds according to “The rules of subsidizing the seed production support”. The rules provide the mechanisms in which partial recovery of seed production farms on actually purchased elite seeds and partial reduction of elite seeds cost sold by the domestic agricultural manufacturers. Seed production stimulation and production of the sufficient amount of elite seeds allow an increase in productivity of crops. Subsidizing of the elite seeds cost led to the fact that the major part of the seeds was used by the

seeds manufacturers themselves which restricted further seeds propagation of the subsequent reproductions and led to the low coverage. Due to the efficiency of this subsidizing type, the positive impact on agro-biodiversity amounted to 30% in amount of 3 738 942 thousand KZT and total amount of funding is 12 463 139 thousand KZT.

Subsidizing water supply services

Subsidizing the cost of water supply for agricultural producers is a necessary measure, since distribution of water resources across the country is extremely uneven and some regions endure a lack of water. In the regions with significant shortages of water, for example, on the south and south-west of the country, the cost of 1 m³ of water is significantly higher than in the other regions of Kazakhstan. Crop growing in the south and south-west of the country is impossible without subsidizing the cost of water supply services. However, even though irrigation has a positive impact on the crops’ growth, there exist such problems as irrational use and application of outdated irrigation technologies, which in turn leads to soil erosion and increased salinity. Biodiversity intent and impact on this area is neutral in that it is targeted to increased production and not sustainable biodiversity management. The percentage of biodiversity impact amounted to 0%.

Figure 12. Funding for agriculture, thousand KZT



Environmental protection (EP)

Before restructuring of the ministries in 2013, the administrator of the environmental activities was the Ministry of Environmental Protection. Currently the administrator is the Ministry of Energy.

During the period of 2008-2014, a wide range of EP programs in Kazakhstan (provided in Appendix 11) have been implemented. During the seven-year period, the program on the environment state observation was conducted annually. This program provides funds for the state environmental monitoring on the entire territory of the republic, within this, special attention is paid to Priaral districts, Kazakhstan's part of the Caspian Sea, "Aktau sea port" economic zone, Balkhash lake basin and the areas impacted by the space-rocket activities. Within this program, bulletins on the state of the environment are released monthly and quarterly. Also, the program funds the acquisition of the automated weather stations, devices and equipment, office appliances, vehicles for logistical support of the state monitoring system of the environment. Until 2012, about 700 000 thousand KZT was provided annually for the program implementation from the republic budget. Since 2012, the budget of the program increased up to 2 108 638 thousand KZT per year due to the expansion of the functions and joining with the program on the state ecological expertise of the strategic, transboundary and hazardous facilities. The function of the joint program included prevention of possible negative effects in the implementation of the planned managerial, business, investment and other activities on the environment through the evaluation of compliance with the environmental requirements. In 2014, the program financing reached the amount of 2 230 165 thousand KZT.

The programs implemented within EP and closely connected with the implementation of the previous described program includes "Development of

quality and quantity indicators (environmental regulations and requirements)" and "Scientific research in the field of environmental protection". Formation of the quality and quantity indicators includes the development of environmental standards and requirements for the range of methodologies in the field of environmental protection to optimize the environment quality control management and taking measures on decreasing the influence of business and other activities on the environment. The integral part for the indicators development and monitoring is scientific research. The following activities are carried out within the scientific research area:

- providing scientific rationale proposals and recommendations for preparation of the activities and investment projects in the field of environment protection;
- scientific support of the implementation of the international nature protection conventions;
- performance of scientific research on the relevant issues of climate change, ozone layer destruction, desertification, contamination and degradation of the environment of the Republic of Kazakhstan;
- preparation of scientific and analytical and map materials on evaluation of the environmental state in the Republic of Kazakhstan;
- development of new environment management approaches and methods;
- development of scientific research basis of the environmental protection

From the above costs in seven years of the amount of 5 017 407 thousand KZT or 50% for each program of the total amount was credited for biodiversity conservation. Justification of the percentage impact on expenditures for environmental protection is the fact that these activities provide indirect support of biodiversity conservation by maintaining the ecological stability of the country.

Table 6. Percentage of influence on biodiversity under programmes financed within the framework of the republican budget

Programme/subprogramme	% of influence on biodiversity	Basis
Forest and hunting management, forestry engineering	100%	Activities are focused on biodiversity conservation
Ensuring preservation and development of SPNT and wildlife	100%	Activities are focused on biodiversity conservation
Security, protection, reforestation and wildlife	100%	Activities are focused on biodiversity conservation
Infrastructure development of Shchuchinsk-Borovoe resort area	10%	Activities are focused on construction and improvement of the infrastructure of the region, with possible negative impact on biodiversity
Development and implementation of information system for biodiversity monitoring in pilot SPNTs of RK	100%	Activities are focused on biodiversity conservation
Improvement of planning, monitoring, preservation systems and efficient use of natural resources	100%	Activities are focused on biodiversity conservation
Preservation and restoration of saiga populations, rare and endangered species of wild animals	100%	Activities are focused on biodiversity conservation
Construction and reconstruction of infrastructure facilities of forestry and SPNTs	100%	Activities are focused on biodiversity conservation
Aerial protection of forest	100%	Activities are focused on biodiversity conservation
Forest management and engineering, accounting and biological assessment in the field of forestry and wildlife	100%	Activities are focused on biodiversity conservation
Conservation, protection and reproduction of forest	100%	Activities are focused on biodiversity conservation
Establishment of green belt around Astana city	100%	Activities are focused on biodiversity conservation
Formation of permanent forest seed base	100%	Activities are focused on biodiversity conservation
Targeted current transfers for compensating losses of land users	100%	Activities are focused on biodiversity conservation
Targeted current transfers for tree planting	100%	Activities are focused on biodiversity conservation
Targeted current transfers for creation of the green belt around Astana city	100%	Activities are focused on biodiversity conservation
Targeted current transfers for material and technical facilities	100%	Activities are focused on biodiversity conservation
Expert evaluation of the quality of forest seeds, inventory and attestation of the objects of the forest seed establishment	100%	Activities are focused on biodiversity conservation
Natural resources management and environmental management	100%	Activities are focused on biodiversity conservation
Forest protection, forest regeneration and afforestation	100%	Activities are focused on biodiversity conservation
Reproduction of fish resources	100%	Activities are focused on biodiversity conservation
State inventory and cadastre of fish resources	100%	Activities are focused on biodiversity conservation
Targeted current transfers for purchasing special equipment and marine equipment	100%	Activities are focused on biodiversity conservation
Targeted current transfers to subsidize increases in the productivity	90%	Low efficiency and outcome under this type of subsidy

Protection and rational use of water resources		
<i>Development of schemes, water balances</i>	50%	Activities under the programme has monitoring nature
<i>Nature protection permits</i>	100%	Activities implemented for replenishment of river levels are important for flora and fauna
<i>Compilation of state water cadastre</i>	0%	There was no activity identified having impact on biodiversity
Development of underground water protection facilities and industrial effluent treatment in the city of Ust-Kamenogorsk	10%	Activities are focused on prevention of negative impact from toxics for the city
Rehabilitation and environmental management of river basins Nura and Ishim	10%	Activities are focused on the improvement of life level of population, by preventing prevalence of mercury pollution
Regulation of the riverbed of Syrdarya and preservation of the Northern part of Aral Sea	100%	Activities on the rehabilitation of the northern part of the Aral Sea have had positive impact on the biodiversity of the region
Targeted transfers to increase the availability of surface water resources	5%	Activities are focused on augmentation of water supply of settlements
Stocking and cultivation of perennial plantation of fruit crops and grapes	30%	Activities conducted as part of this type of subsidies were inefficient
Development of seed production	30%	Activities conducted as part of this type of subsidies were inefficient
Subsidizing the cost of water supply services to agricultural commodity producers	0%	Irrational use and application of outdated equipment for irrigation has led to erosion of soils
Observations of the environment state	50%	Activities have indirect impact on biodiversity by supporting ecological stability
Development of quality and quantity indicators	50%	Activities have indirect impact on biodiversity by supporting ecological stability
State environmental expertise	50%	Activities have indirect impact on biodiversity by supporting ecological stability
Scientific research in the field of environmental protection	50%	Activities have indirect impact on biodiversity by supporting ecological stability

2.2. Funding biodiversity conservation from the local budgets

In accordance with their functions for biodiversity conservation, local budgets of the regions provide funding for:

- PAs of local importance (3 regional nature parks, 15 natural monuments and 4 national nature reserves);
- forestry;
- wildlife;
- fisheries.

The Akimats of Kazakhstan have subordinate Departments of Natural Resources and Environmental Management, which implement above mentioned measures.

Units for forestry and PAs carry out the following functions:

- ensuring conservation, protection and use of forest resources, reproduction of forest resources and cultivation of forest;
- organizing conservation, protection, reproduction and cultivation of forests; regulate forest use within the boundaries of the national forest resources that are under their jurisdiction;

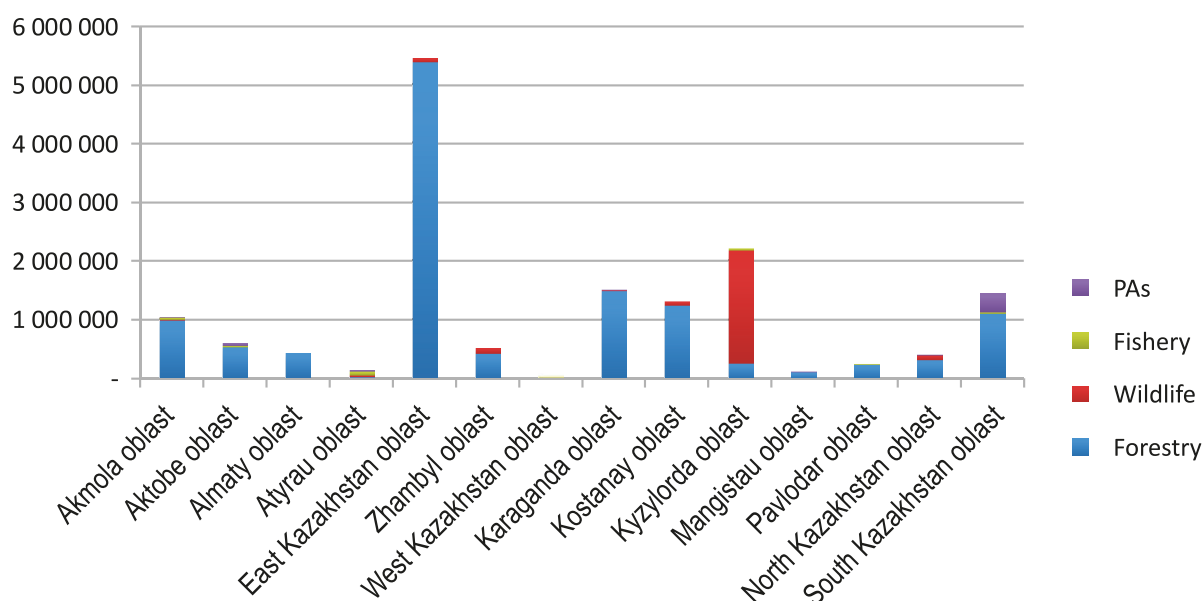
- developing and implementing annual action plans against fires within the boundaries of the national forest resources

Units for protection of wildlife and fisheries carry out the following functions:

- ensuring protection, reproduction and rational use of wildlife resources;
- development and implementation of regional programs for the protection of wildlife;
- keeping stock of wild animals in their respective areas;
- control over protection, reproduction and rational use of fish stocks in the fishery waters of local significance;
- control over biotechnical measures.

As it is seen from the figure, biodiversity financing from the local budget is highly skewed. For instance, in East-Kazakhstan oblast during the seven-year period forestry was financed in amount of 5 373 210 thousand KZT. Coniferous forests are dominant in this oblast and make 13% of the country's state forest fund. In summary, financing of activities in forestry sector accounts for 81% of the local budget.

Figure 13. Biodiversity total funding from the local budgets for period 2008-2014, thousand KZT



2.3. Biodiversity funding from site-based revenues of PAs and forestry reserves

In compliance with the laws, environmental agencies have the right to request fees in exchange for providing services. These include the following:

Provision of commercial services to individuals and entities for using ecosystems of PAs for tourism and recreation:

- hiking trails, viewing platforms, camping grounds, parking for vehicles, camps or places to accommodate camps;
- hotels, motels, tourist centers, catering, trade and other cultural and community facilities under the management of PAs, or places to accommodate them;
- installing pipelines, power lines, communications, and roads (except for public roads) in PAs;
- tourist equipment;
- arranging amateur (sport) hunting and fishing;
- services of guides, tour guides and translators, video and photography for visitors of the sites

of the state natural reserve stock, natural, historical and cultural heritage, museums of nature and nature corners;

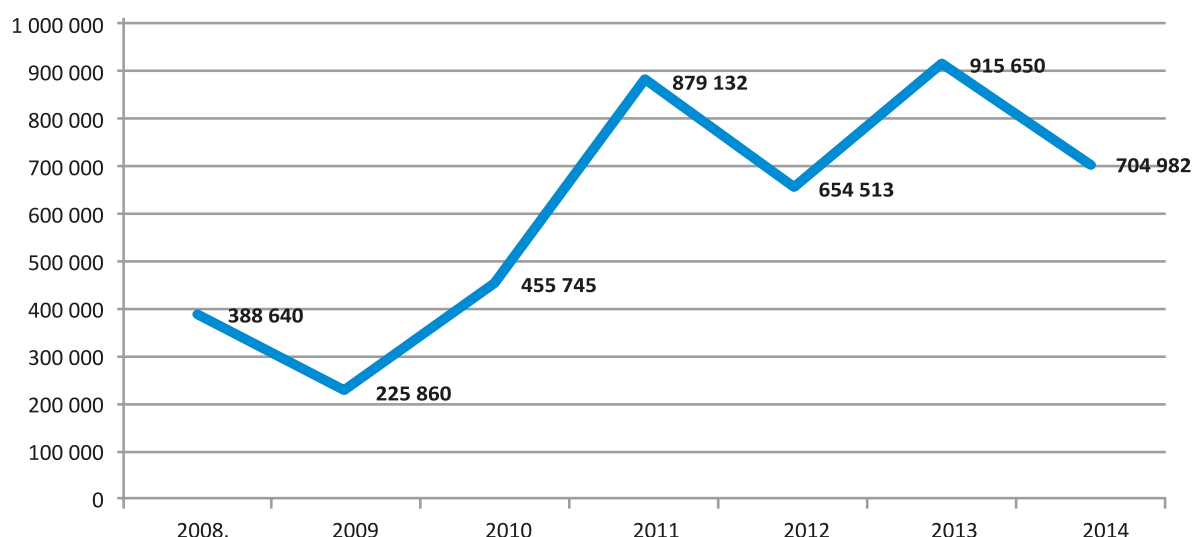
- transportation.

Limited economic activities:

- production of souvenirs;
- sale of goods from intermediate felling and other types of felling, processed products derived from such wood;
- collateral forest uses and sale of refined products;
- growing planting material for planting in residential communities;
- sale of goods from limited economic activity, establishing protective plantings and landscaping outside of PAs;
- growing fish fry;
- manufacturing products and provision of services under cooperation agreements concluded with individuals and legal entities for tourism, recreational and limited economic purposes.

Total volume of services is shown in Figure 14.

Figure 14. Distribution of extra-budgetary revenues of PAs from paid services, thousand KZT



Revenues from paid services provided by PAs have amounted to 4 224 522 thousand KZT from 2008 to 2014.

Revenues almost doubled by 2014, which points to the development of ecotourism. For example, in developed countries, ecotourism makes up 23% of the extra-budgetary revenues of PAs (services of guides and tour guides, accommodation, customer care).

Forestry reserves

By the Rules of providing paid activities on the sale of goods by the state institutions in the field of forestry, approved in the Law of RK "Forests protection and use"³, the forestry provides the following services.

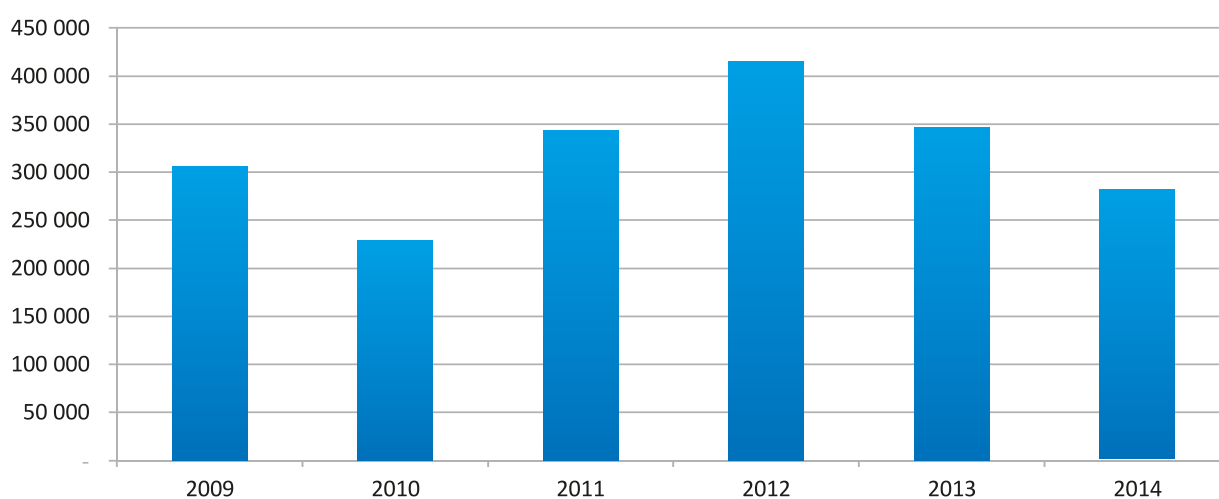
Paid services to individuals and legal entities on:

- growing of the planting stock and seed harvesting,
- creation of greenery, protective, planted and other forest crops,
- conducting training practices.

Sale of goods from:

- intermediate cuttings (improvement cuttings, selective sanitary cuttings and cuttings associated with reconstruction of low-value forest vegetation) and other cuttings (complete sanitary cuttings, forest clearing for construction etc.),
- collateral forest uses (haymaking, livestock grazing, maral (Caspian red deer) and other animal breeding and growing other agricultural crops, preparation and harvesting medical plants, wild fruits, mushrooms, nuts etc.).

Figure 15. Distribution of extra-budgetary revenues of forestry reserves from paid services, thousand KZT



³ Kazakhstan Government Decree of April 27, 2009 № 586

2.4. PRIVATE SECTOR

2.4.1. Hunting concessions

In Kazakhstan a series of legal documents regulates protection and use of the wildlife, including:

- Law of the Republic of Kazakhstan on wildlife protection, reproduction and use (#593-II dated 9 July 2004), which is updated triennially.
- Hunting regulations within the territory of the Republic of Kazakhstan #21458 dated 31 December 2004 (latest updates are dated by 2 July 2012).

Under aegis of the Law on wildlife protection, reproduction and use in 2004 the initiative of the hunting concession system started to develop in all oblasts. From 2004 to 2006 a total of 36 regulations were adopted to support and regulate the hunting concession system.

There are currently about 700 hunting concessions (HC) making 44% of country's area. The goal of the hunting sector is protection, reproduction and rational utilization of game resources, providing citizens with outdoor cultural and healthy recreation and satisfying their aesthetic needs. Hunting concessions are accountable to regional territorial inspection centers (RTICs),

which in their turn are under the jurisdiction of the Committee of Forestry and Wildlife.

While gaining the right for game husbandry a hunting entity agrees that it will carry out a full range of activities related to wildlife protection and reproduction. The inspection center monitors the fulfillment of these obligations on a permanent basis. In their turn, owners of hunting concessions are given an exclusive right for issuance of hunting permits and provision of services to hunters based on the annual quota that are established by the CFW and approved by the Government. In addition, the CFW has involved non-governmental organizations in the protection of wildlife establishing public-private partnership with the Association of Non-Governmental Organizations and Hunting Entities "Kansonar".

The HC system is considered to be innovative in the sense of decentralization of hunting management and reduction of government costs in this sector.

Territorial inspection centers submit reports to the CFW on a permanent basis, that include the lists of all hunting concessions, expenditures, wildlife monitoring reports of CSs as well as revenues generated from selling tickets and game husbandry (realization of fat, fur and taxidermy). The analysis was carried out based on these reports.

Figure 16. Dynamics of distribution of revenues of HCs by year, thousands KZT

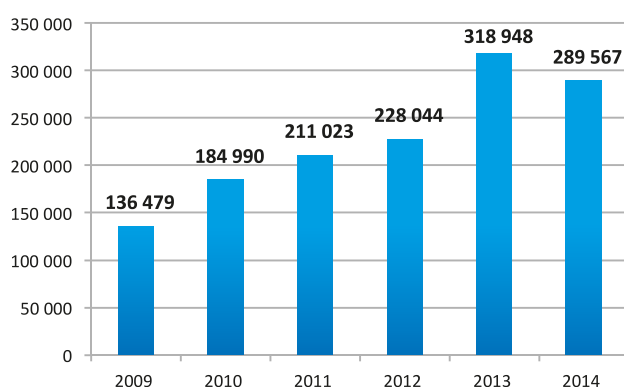
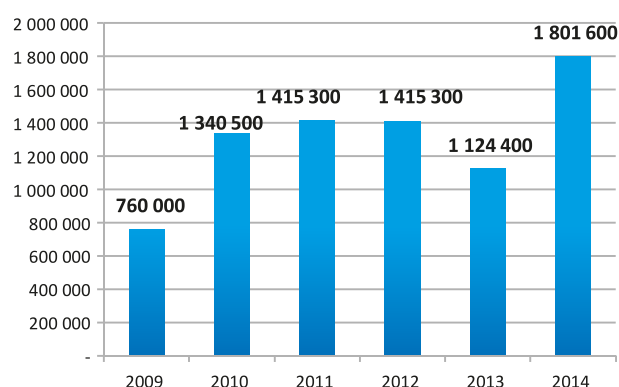


Figure 17. Dynamics of distribution of expenses of HCs by year, thousands KZT



As it is seen from the above-shown graphic charts, expenses of HCs exceed the revenues. In 2014 maintenance expenditures exceeded revenues 6 times. Inadequate commercial viability of the hunting concession system is one of the main problems existing to date.

Currently most HCs are sustainable not because they earn income from hunting but thanks to other sources, including membership fees (in HCs managed by Regional Unions of Hunters or private clubs) or from other types of own business (in case of private owners or LLPs).

The public-private partnership is innovative method on risk sharing and attraction of investments from the private sector. In this case, the HCs system has led to substantial reduction of government expenditures and has provided new ways of revenue generation from tax payments for hunting quota. However, there is a risk that in the course of time owners of hunting concessions will reduce investments for the implementation of highly important activities such as monitoring and protection.

2.4.2 International and other donors including civil society

Since the first day of independence, Kazakhstan has been taking an active part in cooperation with international organizations and has opened itself to such organizations as the United Nations Development Programme (UNDP), the World Bank and the Global Environment Facility (GEF). The organizations work actively on environmental protection.

There are also local associations and foundations working on biodiversity conservation. The Association for the Conservation of Biodiversity of Kazakhstan established in 2004 is active in sustainable conservation of wildlife. The Biodiversity Conservation Fund of Kazakhstan was created in 2007. Activities carried out by international and other organizations in the period from 2008 to 2014 are given in Appendix 10.

United Nations Development Programme (UNDP)

The UNDP supports the Government's efforts to conserve globally important biodiversity through more effective management of water resources and wetlands, pastures, and steppe ecosystems and to conserve the genetic resources of the agro-biodiversity in mountains as well as encourages prevention of global warming threats by stimulating energy-efficiency, rational use of water resources and introduction of renewable sources of energy.

Over the past nine years, UNDP has implemented eight projects on conservation, monitoring of biodiversity and climate change adaptation. Currently, there are six active projects. The portfolio of projects on biodiversity is as follows: BIOFIN, CB2, Improving Sustainability of the PA System in Desert Ecosystems through Promotion of Biodiversity-compatible Livelihoods in and around Protected Areas, Improvement of the System on Natural Resources Planning and Monitoring, Conservation and Efficient Use in the Context of the Transition of the Republic of Kazakhstan to Green Economy.

Projects on agro-biodiversity include the following: Improving the Climate Resiliency of Kazakhstan's Wheat Production for Supporting Food Security in Central Asia, Support in renewing the National Action Plan, as well as in the Process of Reporting and Review of the Effectiveness of Activities within the Framework of the UN Convention to Combat Desertification in Kazakhstan.

The total amount allocated for completed and on-going projects since 2005 is 3.7 billion KZT.

The World Bank (WB)

In 1992, Kazakhstan became a member of the International Bank for Reconstruction and Development (IBRD). Since then, the IBRD has provided 21 loans to Kazakhstan for the total amount of 1.819 billion USD. Of these, 1.171

billion USD has already been spent. The World Bank Group is one of the largest sources of external financing in Kazakhstan. The loans are concessionary and interest rates are well below market rates. Loans granted by the IBRD for the long term, including a grace period.

The Forest and Forest Cover Conservation Project was launched in 2007 as part of the WB's effort. The project was implemented through a set of measures necessary for the conservation and reforestation of the project areas, which contain the main reserves of pine and saxaul plantations of the country. The World Bank provided 4.6 billion KZT in loans.

Small Grants Program/GEF

By providing financial and technical support to projects that aim to preserve and restore nature and, at the same time, increase the level and quality of life of the local communities, the SGP/GEF proves that the local population can meet their needs without harming the environment.

The National Strategy of the Small Grants Program of the GEF is the main instrument governing rules and procedures of the program in Kazakhstan.

During the period from 2005 to 2014, GEF Small Grants Program funded 26 projects, which include projects for conservation and sustainable development of wildlife, water resources, fisheries and promotion of ecotourism in the protected areas. The amount of funding equaled 126 million KZT.

Association for the Conservation of Biodiversity of Kazakhstan (ACBK)

The Association ACBK consists of five NGOs: The Union for Conservation of Birds of Kazakhstan (Almaty), Remez Association of Birdwatchers (Almaty), Arlan Public Center for Protection of Wild Nature (Karaganda), «Rodnik» (Korgalzyn Village) and «Naurzum» (Kostanay).

The mission of the ACBK is the sustainable preservation of the diversity of wildlife on a scientific basis, development of partnerships, to this end,

with national and international governmental and non-governmental organizations, local initiatives as well as assistance in training personnel for environmental practices.

During the period from 2008 to 2014, ACBK implemented 36 projects with a total budget of 559 million KZT. These included measures to keep stock of and conserve rare species of birds and wild ungulates, workshops for specialists and trainings for local people on how to conserve populations of saiga, and land use planning and zoning areas as habitats of the saiga.

Biodiversity Conservation Fund of Kazakhstan

The Fund aims to establish a mechanism for financing projects aimed at conservation of biological diversity of Kazakhstan and the sustainable use of natural resources by providing grant support for individuals and legal entities.

Consolidation of funds received from various donors allows the Fund to finance projects that are important for the country as a whole and for specific regions, cities, villages, and, thus, has a multiplier effect on the environment in general and on the economic and social spheres.

With the investment support from companies such as Kazakmys JSC, ENRC Komek Fund, and Air Astana JSC, the Fund financed the grant projects in Korgalzhyn and Karkaraly PAs:

- air-borne survey of birds;
- carrying out measures to prevent fish kill;
- restoration of three dams;
- establishment of a children's camp;
- production of video and printing materials;
- workshops and festivals.

Also, the Fund mediated the implementation of the World Bank's project for forest conservation and reforestation in the country. From 2009 to 2012, 344.4 million KZT was allocated for the project. Forty-four grant projects were implemented in the following directions:

- development and implementation of innovative approaches and technologies for growing forest crops;
- establishment of nurseries with different effective technologies;
- creation of a biotechnology laboratory;
- planting forest crops in the Aksu-Zhabagaly Sanctuary and Balkhash region;
- development of ecotourism in the PAs;
- construction of buildings and structures in PAs.

2.4.3. Industrial companies

The private sector review considered extractive industries including production facilities of oil and gas, mining and metallurgy and energy fields. In Kazakhstan, the main economic growth source is oil, metals and minerals production. According to the list of Orkhuss center⁴ list, which is created on the basis of "Information and analytical center of environmental protection" RSE (Republican State Enterprise), 39 hazardous production companies operate on the territory of the country.

In accordance with the Environmental Code, each company classified as a "hazardous production" company undertakes a series of environmental measures. Information on the financing of environmental measures was collected by sending a query to each company. In the report, these companies are shown in the context of activities both from a position of direct and indirect impact on biodiversity. Activities with direct relation to biodiversity were ranked in terms of percentage.

The main biodiversity-related activities in the oil industry are: landscaping, monitoring and research of flora and fauna, ensuring the operation of devices for the protection of wildlife. Indirect measures include activities such as biological treatment and reuse of wastewater, reclamation of disturbed lands (not for business). In the mining

and energy industries, the only activity with direct impact on biological diversity is landscaping. The remaining measures have indirect impacts on biodiversity.

At the same time, there are companies for which biodiversity efforts are a priority. For example, the North Caspian Operating Company, one of the largest oil and gas companies, has developed the biodiversity conservation strategy and action plan for its implementation. The company also conducts annual monitoring of populations of birds and seals. During the period from 2009 to 2014, investments in environmental activities reached 2 040 118 thousand KZT.

«ArcelorMittal Temirtau» JSC has engaged the public in its activities. According to its environmental action plan, the company, together with volunteers from the «Reflection» NGO (students of Environmental School №16), cleans the «Beliy Klyuch» spring from debris. Participants of this activity talk to visitors of the spring.

Other than tree planting, the EuroAsian Energy Corporation, also stocks the Irtysh River, which is the source of water supply for power generation.

There are cases when companies do not seem to spend on their environmental commitments even if they have favorable attitudes towards environmental efforts. These include KazMinerals PLC, Ust-Kamenogorsk Titanium and Magnesium Plant JSC, Almaty Power Stations JSC, Astana Energy JSC.

Overall, expenditures on environmental activities for these groups of companies amounted to:

Oil and gas – 9 863 693 thousand KZT, including

- 3 252 905 thousand KZT as a direct impact on biodiversity
- 6 610 788 thousand KZT as an indirect impact on biodiversity

Mining – 3 116 103 thousand KZT, including

- 385 827 thousand KZT as a direct impact on biodiversity
- 2 730 276 thousand KZT as an indirect impact on biodiversity

⁴ Orkhuss center of the Republic of Kazakhstan was established on March 20, 2009 on the basis of "Information and analytical center of environmental protection" RSE (Order of MEP RK №35 – e) in order to implement the provisions of Orkhuss convention.

Energy sector – 1 833 609 thousand KZT, including

- 395 753 thousand KZT as a direct impact on biodiversity
- 1 437 856 thousand KZT as an indirect impact on biodiversity

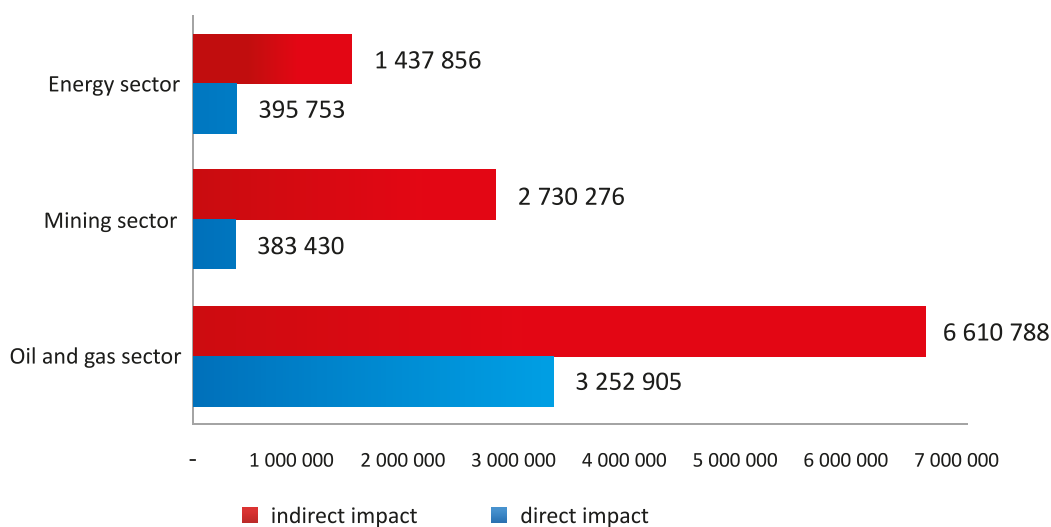
Compared to state expenditures on biodiversity, the expenditures by industry companies are amount 9,9% of what government is spending. These indicators are believed to be low and should be increased.

Hazardous production facilities being large extractive industries in the country and causing significant damage to biodiversity should conduct more quality and more focused environmental activities. By the Concept on transition of RK

to “green economy”⁵ for 2013-2020, the main priority of the state is optimization of the resources use and increase of the environmental activities efficiency. Depending on the type of activities of any company, environmental activities should be aimed at biodiversity conservation through the exploration, development and resources use.

Some large extractive industry actors face the issues of defining environmental activities which may be performed in any regions. Such issue can be solved by the Action plan on the implementation of the Concept on biodiversity (NBSAP). This Plan is open for funding by the state as well as by private sector. Also, to improve the implementation of environmental protection activities, it is necessary to perform high quality continuous monitoring.

Figure 18. Distribution of biodiversity funding by the private sector on direct and indirect influence, thousand KZT



⁵ Concept on transition of the Republic of Kazakhstan to “green economy” approved by the order of the President of RK No. 577 dated May 30, 2013

3. REVIEW OF EXPENDITURES ON THE MAIN GROUP OF STRATEGIES

According to the BIOFIN methodology, for a more rational approach, both expenses included in BER and the FNA are divided into Aichi Targets and Convention of Biological Diversity (CBD) Strategic

Goals. Below is the list of Aichi Biodiversity Targets of the Strategic Plan of the Biodiversity Convention and the group of strategies.

Table 7. Aichi targets and strategic goals

Strategic goal A: Elimination of the main reasons for loss of biodiversity through introducing issues of biodiversity into the government and society (Mainstreaming)

Target 1: Awareness of the values of biodiversity

Target 2: Integration of biodiversity values into the development and poverty reduction strategies as well as into the national reporting and inventory systems

Target 3: Elimination or reformation of incentives or subsidies negatively impacting biodiversity, or application of subsidies of favorable nature

Target 4: Implementation of plans for sustainable production and consumption

Strategic goal B: Reduction of the direct pressure on biodiversity and promotion of sustainable use (Sustainable use)

Target 5: At least, decrease by half the loss of natural habitats, including forests, and reduce degradation and fragmentation

Target 6: Sustainable consumption and management of fish resources, reserves of invertebrates and water plants

Target 7: Sustainable management of agriculture, aquaculture and forestry, and ensuring biodiversity conservation

Target 8: Reduction of pollution, including from excess of foodstuff

Target 9: Prevention of spread of or extermination of the main invasive foreign species

Target 10: Reduction of major human-induced pressure on coastal reefs and other vulnerable ecosystems

Strategic goal C: Improvement of the state of biodiversity by conserving ecosystems, species of genetic biodiversity (Conservation)

Target 11: Protection of at least 17% of terrestrial and inland water systems, and 10 per cent of coastal and marine areas, and creation of interconnected protected areas and carrying out other effective measures in these areas

Target 12: Prevention of extinction of known endangered species and improving the status of their protection

Target 13: Conservation of the genetic diversity of cultivated plants and domesticated animals and their wild relatives, and preparation and implementation of strategies for minimizing genetic erosion and conservation of genetic diversity

Strategic goal D: Increasing benefits to all from biodiversity and ecosystem services (*Ecosystem Service Maintenance*)

Target 14: Restoration and conservation of ecosystems that provide essential services, including services related to water, preservation of health, activities and welfare

Target 15: Enhancing resilience of ecosystems and contribution of biodiversity to carbon stocks through conservation and restoration of, at least, 15% of degraded ecosystems

Access and Benefit sharing (ABS)

Target 16: By 2015, The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization shall come into force and effect in accordance with national legislation.

Strategic Goal E Improving implementation through planning, knowledge management and capacity building (*Implementation Support*)

Target 17: The Parties shall develop, adopt and begin implementing the renewed NBSAP

Target 18: Integration of the traditional knowledge of indigenous and local communities with the full and effective participation of indigenous communities

Target 19: Improving and sharing knowledge about biodiversity, its values, functioning, status and trends, and the impact from its loss

Target 20: The mobilization of financial resources for effective implementation of the Strategic Plan for Biodiversity for 2011-2020

The distribution of expenditures on the major groups of strategies was carried out at the BIOFIN workshop, which took place in the third quarter of 2015 and brought together industry experts from government agencies and research institutes. During the workshop, the participants were divided into seven working groups according to sectors: 1) forestry, 2) protected areas and tourism, 3) hunting and wildlife management,

4) fisheries, 5) water management, 6) agriculture, and 7) industry. Project experts presented their input for the Policy and Institutional Review as well as analysis of biodiversity funding in Kazakhstan (Biodiversity Expenditure Review – BER – this report). Following the presentations, the participants held discussions on the main state and private expenditures to properly fill out the BER and identified strategies in each group.

Figure 19. Review of expenditures on the main groups of strategies, thousand KZT

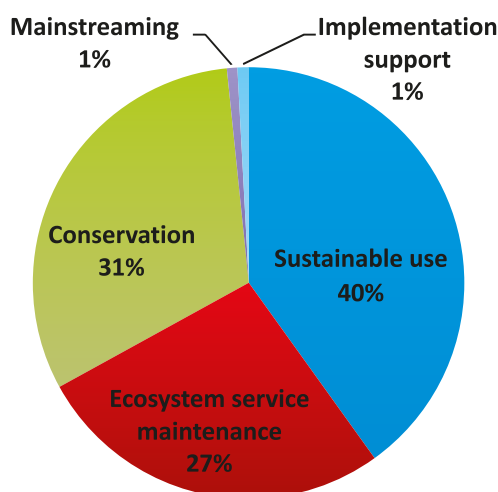


Table 8. Distribution of expenditures by strategic goals, thousand KZT

Category	Main-streaming	Sustainable use	Conser-vation	Ecosystem Service Maintenance	Implemen-tation support	Total
Government	31 786 429	44 908 275	53 781 829	1 307 749	4 903 454	136 687 736
<i>Water resources</i>	140 478	9 319 761	1 189 335			10 649 575
<i>Forestry</i>	29 332 760	35 588 514	12 010 881			60 521 698
<i>PAs and Wildlife</i>	1 048 530		40 581 613	1 193 796		42 823 939
<i>Fisheries</i>	12 120 237					12 120 237
<i>Agriculture</i>	5 554 881	-				5 554 881
<i>Environmental protection</i>	5 017 407					5 017 407
Own funds of PAs, HCs and FCs	7 514 034					7 514 034
Industrial companies	2 506 870	362 016	881 593			3 750 480
International organizations	7 533 856	2 270 549	747 675	317 568	1 394 352	12 263 999
Total	70 769 052	47 540 840	55 411 097	1 511 364	1 394 352	176 626 705

The percentage distribution by the strategic goals and data on biodiversity costs in terms of goals and funding sources are provided in figure 19. Strategic goal A accounts for 1% and includes the activities on integration of biodiversity values into the development strategy, national reporting and inventory systems and implementation of plans for sustainable production and consumption.

According to the schematic data, Strategic goal B accounts for 40% and includes the costs of sustainable management of agriculture, aquaculture and forestry, as well as the efforts to reduce degradation of lands and reduce pollution. The state budget funds the activities on protection, reclamation of forests and forest development on SFF sites, planting fruit and berry crops as well as the activities on increasing the effectiveness of commercial fishery. Private sector, represented by industrial companies, performs the activities on biological lands recovery, site landscaping and wastewaters biological treatment.

Strategic goal C (31%) includes prevention of extinction of known endangered species and improving the status of their protection, PAs protection and conservation of the genetic

diversity. In this direction, the state jointly with other organizations performs the works on conservation of rare animals, such as: saiga, koulán and goitered gazelle, and on creation and extension of PAs.

Strategic goal D, which accounts for 27%, sets the target on restoration and conservation of ecosystems that provide essential services, including services related to water, preservation of health, activities and welfare. Supported by the loan provided by the World Bank, the state implemented the range of programs to prevent contamination of Irtysh, Nura and Ishim rivers and municipal water supply sources.

Strategic goal E, funding of which is not very high, accounts for only 1% of the total expenses and includes the targets on improving implementation through planning, knowledge management and capacity building. During the analyzed period, the country has developed the National Strategy on Conservation of Biodiversity within UNDP project and is implementing BIOFIN project aimed at mobilization of financial resources to support the goals of biodiversity conservation.

4. EXPECTED FUTURE BASELINE FINANCING UNDER THE “BUSINESS AS USUAL SCENARIO”

The expected future baseline financing under the “business as usual scenario” is calculated for 2016-2020 for further defining of financial gap in the Financial Needs Assessment. By the BIOFIN methodology, the future funding should include all the financing sources of the biodiversity conservation targets analyzed in this expenditure review. Thus, further we are going to consider the expenses provided by republican and local budgets, international and other projects and other organizations implemented in 2016-2020.

Republican Budget (RB)

By the Law of RK “On republican budget for 2016-2018” No. 426-V LRK dated November 30, 2015, it is planned to implement eight programs with direct and indirect influence on biodiversity conservation, administered by MA RK, ME RK and DPA RK (Appendix 18).

Budget planning in the country is scheduled for the next three years, thus, the estimated biodiversity

funding for 2019-2020 was calculated taking into account the annual inflation rate of 10% and projecting past expenditures forward.

Forestry Management, Conservation and Development of Forest Resources and Wildlife Program has three subprograms, which include

- Protected Areas – conservation of natural reserve funds, funding the maintenance of 26 PAs.
- Forestry – conservation, reproduction and rational use of forest resources, funding maintenance of facilities for production of forest seeds, air-borne protection, forest management and other activities in the forest sector.
- Wildlife – conservation, reproduction and rational use of wildlife resources involves funding protection, inventorying and monitoring of rare and endangered animals, researching the state of the snow leopard.

Table 9. Expected funding in the field of PAs, forest and wildlife, thousand KZT

Program	2016	2017	2018	2019	2020	Total
Management, conservation and development of forest resources and wildlife	15 506 728	15 364 287	15 195 334	16 714 867	18 386 354	81 167 570

Total predicted amount for the five years of biodiversity financing from the RB by the current program is 81 167 570 thousand KZT, if in 2019-2020, the budget will increase with 10% inflation. However, comparing the similar funding in the field of PA, forestry and wildlife, which is 39 835 482 thousand KZT in 2008-2014, the amount would have doubled.

For the planned period, **the Improvement of the System of Planning, Monitoring, Conservation and Effective Use of Natural Resources Program** implemented in partnership with UNDP has provided funding for development of the Concept of Institutional Frameworks to Manage the Wildlife, preparation of the guidelines in the field of managing wildlife and development of plans for management of two project territories.

This project will last for two years (2014-2016) and will fulfill its objectives next year.

The program of DPA RK “Protection, preservation, reproduction of forests and wildlife” aimed at conserving and maintaining “Burabai” SNNP for the next years is funded in amount of 745 738 thousand KZT annually. The funding has increased compared with the budget of 587 710 thousand KZT in 2014.

The program “Creation of conditions for development of production, processing, implementation of crops production”, administered by MA of RK, is aimed at subsidizing the cost of services, works and goods in crops production. Section “Agriculture” of this work analyzed several areas of subsidizing. Subsidizing in crops production often has negative influence for agro-biodiversity, and rarely - positive. However, the state support of agriculture in Kazakhstan described in the last edition of “Agrobusiness – 2020” program aimed at the increase of the agricultural production volumes by the use of water saving technologies as well as the application of scientific rationale methods of crop rotation that will facilitate biodiversity conservation. As a result, by the program of support and creation of conditions in crops production, the positive influence share for the targets of biodiversity conservation is 5% of the total amount of predicted funding.

Program “Efficient water resources management”

For 2014-2020, Kazakhstan approved the state program on water resources management. The program defines three objectives: guaranteed supply of water resources for the population, environment and economy fields by the implementation of measures on water conservation and increase of the available water resources; increase of the water resources management efficiency; conservation of water ecological systems. Also in addition, the program comprehensively considers the water supply issues

taking into account the aims and objectives of the sustainable development and transition of the republic to the “green economy”. The republican budget provides funding of 18 386 003 thousand KZT in 2016, 19 668 889 thousand KZT in 2017, 14 486 561 thousand KZT in 2018, the following years are calculated taking into account the historic trend of 10% inflation.

The program “Implementation of the Concept on transition to “green economy” and “Green Bridge” partnership program implemented jointly with ME RK and UNDP is aimed at the analysis and attraction of the best practices for providing assistance to the country in transition to the “green economy”. The main objectives of the program are: support in the development of institutional and legislative basis for the feasible promotion of solar energy; fishing industry development in the part of aquaculture and adoption of new technologies; development and institutionalization of “Green Bridge” Partnership program. The Program is provided for 2015-2017 with funding from RB in amount of 161 995 thousand KZT in 2016, and 84 770 thousand KZT in 2017.

Two programs in Environmental Conservation influencing the biodiversity are implemented during the period of 2016-2020. ***“Stabilization and improvement of the environment”*** includes financing of the services on the implementation of the activities within the international agreements, conventions and protocols; services on the implementation of the objectives on informational awareness in the field of Environmental Conservation; construction and reconstruction of Environmental Conservation facilities. ***“Reduction of greenhouse gases emissions”*** is aimed at providing services on the execution of the provisions of the UNDP framework convention on climate change and Kyoto protocol, and on the support of the use of the renewable energy sources in Astana and Almaty cities. The funding specified in table 4 is provided for these programs. The impact on biodiversity conservation is defined as 50%.

Table 10. Funding of the programs in the field of environmental protection, thousand KZT

Program	2016	2017	2018	2019	2020	Total
Stabilization and improvement of the environment	1 173 371	71 177	74 665	82 132	90 345	1 491 689
Reduction of greenhouse gases emissions	162 453	157 201	157 347	173 082	190 390	840 473
Total	1 335 824	228 378	232 012	255 214	280 735	2 332 162

Regional (local) budgets are prepared in plans for three years, which are approved by the decisions of the relevant maslikhats. "Water resources and wildlife use administration" SI within the Akimat of each region provides the performance of activities on protection, preservation, reproduction of forests and forestry, and wildlife protection. Funding in each of the region differs due to the works performance. The amount of budget for five years is 36 728 848 thousand KZT, calculations for 2019-2020 are provided taking into account 10% inflation.

Future baseline financing also includes UNDP projects implemented till 2018, including BIOFIN, CB2, Increase of the sustainability of the protected areas in desert ecosystems through the

promotion of biodiversity compatible livelihoods, Implementation of the Concept on transition to "green economy" and "Green Bridge" partnership program. The budget of these projects is 526 850 thousand KZT.

The expected financing from all the sources for 2016-2020 is 137 213 486 thousand KZT, 73% of which is RB (Appendix 19). This indicator is not precise and can change during the next years. In late 2015, a global drop in oil and metal prices occurred which are the basis for much of Kazakhstan's economy and government revenue. As a result, the government had to allow the national currency to float its rate which caused a devaluation.

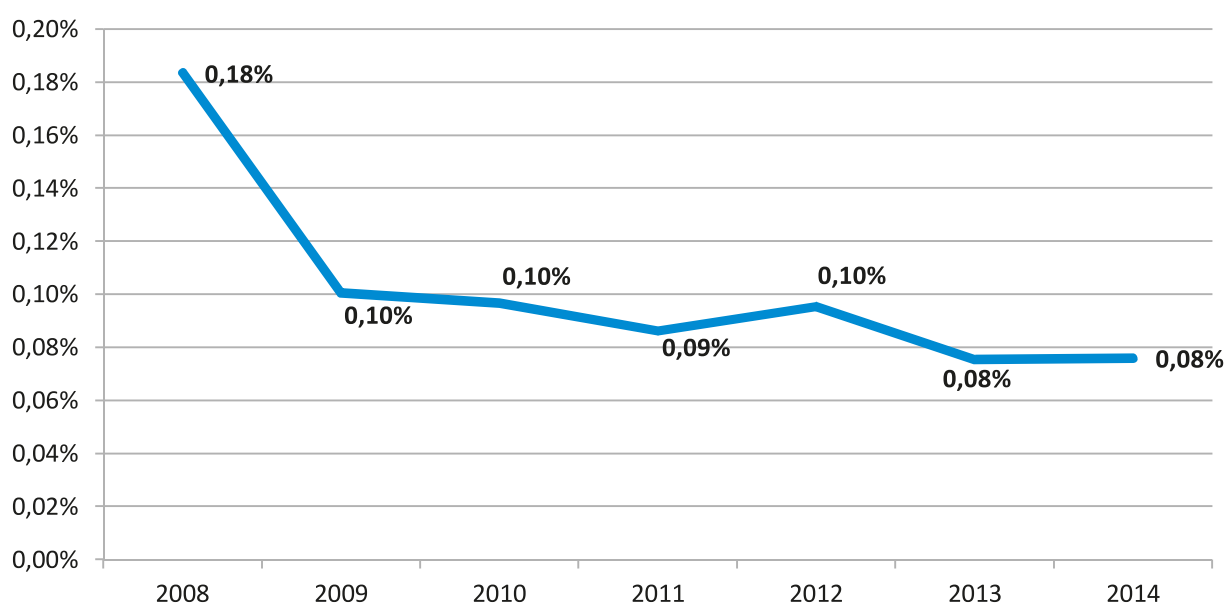
CONCLUSION

Following the BIOFIN methodology for the Biodiversity Expenditure Review, data were collected on the funding of biodiversity management measures in the context of public and private sector over the time period of 2008-2014. In Kazakhstan, biodiversity is funded in areas as follows: forestry, PAs and tourism, wildlife, fisheries, agriculture and water resources. Administrators of activities carried out in the public sector include the Ministry of Agriculture and its subordinate bodies: Committee of Forestry and Wildlife, Water Resources Committee, the Fishery Resources Committee as well as the Department of Presidential Affairs, the Ministry of Energy, and the regional Akimats. The private sector includes international, civil society and other donors, site based revenues of PAs and hunting providers, and private oil and gas, mining and energy companies.

Total funding for biodiversity conservation in Kazakhstan over seven years amounted around 177 billion KZT (525,6 million USD⁶). Comparing annual investment in biodiversity to macro-economic indicators, financing of biodiversity corresponds to 0.08-0.18% of the country's GDP. Moreover, this indicator is decreasing over the years, for example in 2008 the percent of biodiversity expenditure to GDP was 0,18% and in 2014 the percent decreased to 0,08% (Figure 20).

The main reason of such provision is the fact that the biodiversity value is not included in the planning of development due to the lack of a standard use of economic valuation for biodiversity and ecosystem services, and the parties making decisions misunderstand the benefits of conservation in comparison to the costs needed for restoration of ecosystems and biological resources.

Figure 20. Dynamics of the share of biodiversity expenditures related to national GDP

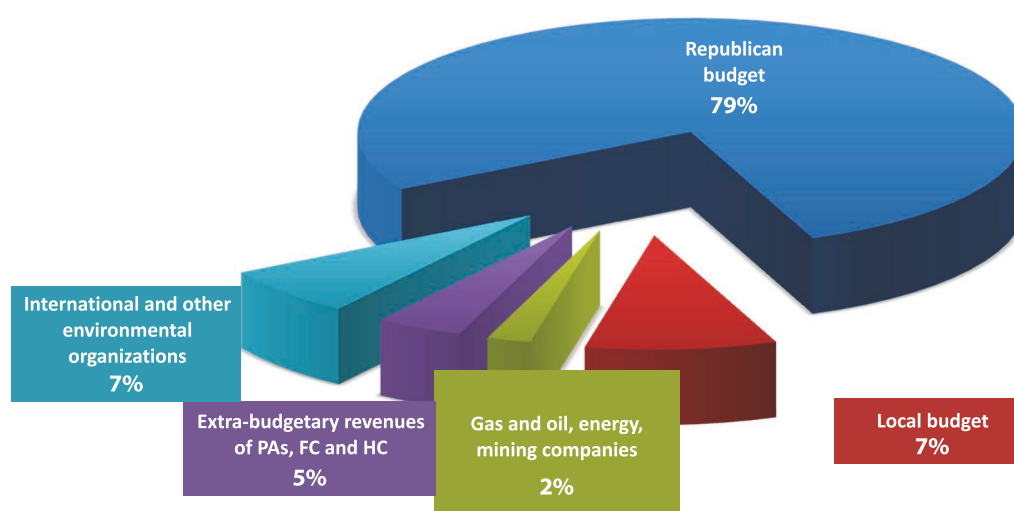


The main conclusion of the BER is that 86% of the funding for biodiversity objectives comes from government. The remaining 14% is distributed

among international and other donors (7%), own resources (5%) and industrial companies (2%) (Figure 21).

⁶ Exchange rate for June 2016 makes 336 KZT

Figure 21. Distribution of biodiversity financing in period 2008-2014



Having analyzed the results obtained in the course of this study, we can summarize that the existing financing of biodiversity in Kazakhstan needs changes.

With regards to public funding it is necessary to maintain and increase government investments in the biodiversity in the long-term perspective. Alternatively, it is required to promote legislative changes to support the goals of biodiversity conservation. The following legislative changes are necessary:

- implementation of positive tax incentives of taxpayers,
- increase in taxes for products and services, having negative impact on biodiversity,
- reforming of policy on subsidies, causing harm and supporting subsidies having positive impact on the trends of biodiversity and ecosystems,
- preparation and adoption of the Law of the Republic of Kazakhstan "On Genetic Resources",
- introduction of amendments and supplements in the Environmental, Forest Codes, Law of the RK on PAs,
- legislative amendments for giving the chance to HCs to lease land and develop hunting farms,

- transfer of funds, generated from payments and penalties in the field of wildlife right back to the budget of HCs as a driver to support the combat with illegal hunting,
- Inclusion of the terminology on ecosystem services and related payments to the normative and legal acts.

As of financing provided by the private sector during the period being analyzed, it can be said that revenues generated from fee-based services provided by PAs have increased twofold, which shows the prospect for development of ecological tourism in Kazakhstan.

The least investment to the biodiversity conservation activates is provided by industrial companies. With the existing raw-material orientation of the country's economy these indicators are pitifully small compared to the harm caused to the environment. In this regard, there is need to take measures on the increase of financing of biodiversity by industrial companies.

Tools exist in the international practice which help to involve the private sector to the financing of biodiversity and ecosystems. One of such practices are payments for ecosystem services (PES), biodiversity offsets, certification and others. These tools allow to involve the private sector in the biodiversity funding and raise ecological responsibility.

The payments for ecosystem services (PES) are critically important for overcoming barriers in biological resources management and make it possible to implement accounting of environmental costs and benefits in decision-making process, when there is lack of financial resources for solving environmental and economic issues. Payment system for ecosystem services will enable to identify real customers and providers of ecosystem services and provide additional financial resources creating incentives for investments and involvement of private sector in biodiversity and ecosystem conservation. This mechanism will enable to establish ecosystem services market through conversion of abstract ecosystem services in the category of necessary “commodities and food”.

Implementation of PES mechanism should take into account the availability of demand on and supply of the service, economic valuation of ecosystem services, availability or establishment of appropriate legislative frameworks, institutional framework and introduction of cash and in-kind payments.

The biodiversity offsets include activities on biodiversity conservation that are carried out to compensate harm (that cannot be avoided or mitigated) caused to the nature. This mechanism is the way to demonstrate that, for example, an infrastructure project may be implemented without total losses for ecosystems and biodiversity of

the area. The aim of offsets is to achieve zero net losses and growth of biodiversity in terms of species composition, habitat, functioning of ecosystems as well as the use of cultural values by people involved in biodiversity.

Certification. This mechanism involves business and private sector in biological resources conservation through their understanding of an environmental issues’ urgency and the impact their business or products may make. For global markets, certification systems provide clear indicators of social and ecological responsibility of the business, and allows these companies to benefit from increasing demand for quality and safety products. Mechanism of independent market certification will enable producers to provide food and other products of Kazakhstan commodities and services with quality and safety standards as the improved environmentally sustainable production results in measurable positive changes in natural resources management. The outcome of this mechanism is compatible with overall public policy on transition to “green” economy.

These tools only a small part of existing tools related to the mobilization of financial resources for biodiversity conservation purposes. All financial solutions will be considered in detail in the resource mobilization plan with the help of which increasing and maintaining the financing of biodiversity and ecosystems is possible.

APPENDICES

Appendix 1. Total annual budget and costs of government, foreign loans and grants

Government budget	2008	2009	2010	2011	2012	2013	2014
Revenues, thousand KZT	4 034 411 000,0	3 505 345 000,0	4 299 132 000,0	5 370 826 000,0	5 813 003 400,0	6 382 352 923,0	7 321 276 000,0
Expenses, thousand KZT	3 394 064 000,0	3 746 840 000,0	4 457 165 000,0	5 423 235 000,0	6 268 972 000,0	6 852 711 305,0	7 791 867 497,0
Deficit of budget, thousand KZT	-333 238 000,0	-492 693 000,0	-527 264 000,0	-568 618 000,0	-890 308 700,0	-700 927 751,0	-1 086 670 436,0
Deficit of budget in percentage to GDP	-2,1	-2,9	-2,4	-2,1	-2,9	-2,0	-2,8
Gross inflow of foreign direct investments in the Republic of Kazakhstan, for the period, thousand KZT	2 377 128 000,0	2 805 007 500,0	2 808 343 650,0	3 880 591 540,0	4 314 497 850,0	3 671 961 810,0	

Appendix 2. Gross Domestic Product in Kazakhstan on the period of 2008-2014 years

GDP	2008	2009	2010	2011	2012	2013	2014
thousand KZT	16 052 919 200,0	17 007 647 000,0	21 815 517 000,0	27 571 889 000,0	30 346 958 200,0	35 275 153 300,0	39 040 898 900,0
thousand USD	133 440 700,0	115 306 100,0	148 052 400,0	188 050 000,0	203 520 600,0	231 875 100,0	217 874 300,0
in percentage to previous year	103,3	101,2	107,3	107,5	105,0	106,0	104,4

Appendix 3. Total annual republic budget

Republic budget	2008	2009	2010	2011	2012	2013	2014
Revenues, thousand KZT	3 317 602000	2 779 228000	3 626 177000	4 451 683000	4763394800	5 179 459100	5 908 848900
Expenses, thousand KZT	2 703 567000	3 118 646000	3 860 974000	4 605 080000	5259433800	5 700 805300	6 471 183200
Deficit of budget, thousand KZT	-327 479000	-510 946000	-554 789000	-575 972000	- 906459200	-718 045300	-1 081 239700
Deficit of budget in percent to GDP	2%	3%	2,5%	2,1%	3 %	2,%	2,8 %

Appendix 4. Implementation of republic budget, thousand KZT

Republic budget	2008	2009	2010	2011	2012	2013	2014
Planned budget	2 716 038 820	3 178 048 422	3 897 666 677	4 647 429 633	5 301 003 844	5 743 716 813	6 574 979 147
Implementation	2 703 567 000	3 118 646 000	3 860 974 000	4 605 059 000	5 259 434 000	5 700 805 313	6 471 183 000
Percent of implementation	99,5%	98,1%	99,1%	99,1%	99,2%	99,3%	98,4%

Appendix 5. Total annual local budget

Local budget	2008	2009	2010	2011	2012	2013	2014
Revenues, thousand KZT	1 830 138000	2 119 178000	2 407 437000	2 677 740000	3010923600	3 284 401000	3 752 971100
Expenses, thousand KZT	1 798 775000	2 021 250000	2 330 641000	2 576 751000	2970872600	3 233 413200	3 661 227700
Deficit (profit) of budget, thousand KZT	-12 822 000	19 583 000	6 607 000	-10 612 000	-26 192 900	-25 130 400	-31 034 800
Deficit (profit) of budget in percentage to GDP	-0,1	0,1	0,03	-0,04	-0,09	-0,07	-0,08

Appendix 6. Activities funded from RB in the field of PAs, tourism and wildlife, thousand KZT

Activities	Republic budget							Total
	2008	2009	2010	2011	2012	2013	2014	
Forest and hunting management, forestry engineering, accounting and biological assessment in the field of forests and wildlife	98 619	125 902	125 514	168 896	132 794	111 230	134 850	897 805
<i>Ensuring preservation of natural reserves</i>	35 163	36 100	29 088	48 458	30 238	20 537	33 597	233 181
<i>Ensuring preservation, reproduction and rational use of wildlife resource</i>	63 456	89 802	96 426	120 438	102 556	90 693	101 253	664 624
Ensuring preservation and development of SPNT and wildlife	3 537 953	3 562 618	3 716 433	4 493 846	6 152 161	7 315 606	6 728 661	35 507 278
Security, protection, reforestation and wildlife	224 440	224 648	225 006	262 989	456 915	477 577	587 710	2 459 285
Infrastructure development of Shchuchinsk-Borovoe resort area	301 758	64 697	77 740	150 029	180 936	317 025	101 613	1 193 796
Development and implementation of information system for biodiversity monitoring in pilot SPNTs of RK					26 052	60 441	67 186	153 679
Improvement of planning, monitoring, preservation systems and efficient use of natural resources							11 864	11 864
Preservation and restoration of saiga populations, rare and endangered species of wild animals	192 062	221 159	250 078	250 087	677 927	250 087	800 169	2 449 507
Construction and reconstruction of infrastructure facilities of forestry and SPNTs	275 472	175 032	90 472	47 514	85 132	20 521	121 206	815 349
Total	4 438 242	4 374 056	4 485 243	5 373 361	7 711 917	8 552 487	8 553 259	43 488 563

Appendix 7. Activities funded from RB in field of forestry, thousand KZT

Activities	2008	2009	2010	2011	2012	2013	2014	Total
Aerial protection of forest	833 094	1 034 591	1 003 817	1 582 635	1 702 211	1 707 864	1 702 211	9 566 423
Forest management and engineering, accounting and biological assessment in the field of forestry	290 719	298 476	295 864	332 207	333 109	356 577	372 984	2 279 936

Conservation, protection and reproduction of forest, educational industrial activities in field of forest resources	29 886	31 893	32 360	34 668	41 615	43 092	41 730	255 244
Establishment of green belt around Astana city	1 641 435	1 764 701	1 850 951	2 126 470	2 374 991	2 389 975	2 789 641	14 938 164
Formation of permanent forest seed base	51 743	111 637	70 178	82 550	86 844	60 171	86 110	549 233
Targeted current transfers to the budget of the Akmola Oblast for compensating losses of land users or land owners resulting from appropriation of land lots for the green belt around Astana					50 067	324 775		374 842
Targeted current transfers to the budget of the Akmola Oblast for planting forests along the Astana-Schuchinsk Toll Road in the segment between Shortandy and Schuchinsk	12 517 664		56 072	481 034	580 070	291 669	127 860	14 054 369
Targeted current transfers to the budget of Astana for creation of the green belt					756 695	971 974		1 728 669
Targeted current transfers to the budget of the Kostanay Oblast for fitting out efforts to conserve, protect and reproduce forests					400 000			400 000
Expert evaluation of the quality of forest seeds, inventory and attestation of the objects of the forest seed establishment, assessment of the sanitarystate of forest	18 035	25 630	23 781	27 140	116 367	30 257	30 257	271 467
Conservation, reproduction and rational use of forest resources		1 941 740	2 265 026	3 064 609	3 157 667	2 820 798	3 160 617	16 410 457
Total	15 382 576	5 208 668	5 598 049	7 731 313	9 599 636	8 997 152	8 311 410	60 828 804

Appendix 8. Activities funded from RB in field of fishery, thousand KZT

Activities	2008	2009	2010	2011	2012	2013	2014	Total
Reproduction of fish resources	723 112	433 155	746 583	873 251	1 410 619	731 540	503 148	5 421 408
State inventory and cadastre of fish resources	124 043	119 772	124 287	141 965	150 834	170 018	152 148	983 067
Targeted current transfers to the budget of the Atyrau Oblast for purchasing special equipment and marine equipment for the entity of state monopoly in the field of fisheries	38 159	44 400	772 832					855 391
Targeted current transfers to regional budgets, budgets of Astana and Almaty to subsidize increases in the productivity and quality of commercial fish farming	4 451 342			156 596	264 158	264 158	264 158	5 400 412
Total	5 336 656	597 327	1 643 702	1 171 812	1 825 611	1 165 716	919 454	12 660 278

Appendix 9. Costs of activities for water resources with direct and indirect effects on biodiversity, thousand KZT

Activities	2008		2009		2010		2011		2012		2013		2014	
	Expenses for BD	Expenses	Expenses for BD	Expenses	Expenses for BD	Expenses	Expenses for BD	Expenses	Expenses for BD	Expenses	Expenses for BD	Expenses	Expenses for BD	Expenses
Protection and rational use of water resources	242 326	324 901	505 967	597 593	547 736	618 555	832 504	860 424	2 363 368	2 707 533	1 636 850	1 867 306	3 153 396	3 355 861
<i>Development of schemes, water balances and standards in the field of protection and use of water resources</i>	71 226	142 452	80 467	160 933	61 536	123 072	27 920	55 840	344 166	688 331	230 456	460 912	202 465	404 930
<i>Nature protection permits</i>	171 100	171 100	425 500	425 500	486 200	486 200	804 584	804 584	2 019 202	2 019 202	1 406 394	1 406 394	2 950 931	2 950 931
<i>Compilation of state water cadastre</i>	-	11 349	-	11 160	-	9 283								31 792
Development of underground water protection facilities and industrial effluent treatment in the city of Ust-Kamenogorsk			14 120	141 197	16 000	160 003	21 014	210 142	12 694	126 937	43 503	435 027	33 148	331 478
Rehabilitation and environmental management of river basins Nura and Ishim	77 956	779 561	94 691	946 907	224 064	2 240 639	129 808	1 298 076	243 783	2 437 830	35 008	350 075		
Regulation of the riverbed of Syrdarya and preservation of the Northern part of Aral Sea (phase 1-2)	68 655	68 655	153 008	153 008	94 123	94 123								
Targeted transfers for development of regional budgets, budgets of Astana and Almaty to increase the availability of surface water resources													105 855	2 117 107
Total	388 937	1 173 117	767 786	1 838 705	881 923	3 113 320	983 326	2 368 642	2 619 845	5 272 300	1 715 361	2 652 408	3 292 399	5 804 446

Appendix 10. Expenses for direct and indirect influence on biodiversity in agriculture, thousand KZT

Activities	2008		2009		2010		2011		2012		2013		Total costs of BD	Total
	Expenses for BD	Expenses	Expenses for BD	Expenses	Expenses for BD	Expenses	Expenses for BD	Expenses	Expenses for BD	Expenses	Expenses for BD	Expenses		
Target current transfers to regional budgets, budgets of Astana and Almaty for stocking and cultivation of perennial plantation of fruit crops and grapes	355 727	1 185 756	744 127	2 480 424	453 908	1 513 025							1 553 762	5 179 205

Target current transfers to regional budgets, budgets of Astana and Almaty to support the development of seed production	340 325	1 134 415	573 337	1 911 124	626 260	2 087 532	726 716	2 422 386	735 434	2 451 448	736 870	2 456 234	3 738 942	12 463 139
Target current transfers to regional budgets, budgets of Astana and Almaty to subsidize the cost of water supply services to agricultural commodity producers	-	775 036	-	1 358 101	-	1 492 338							-	3 625 475
Total	696 051	3 095 207	1 317 464	5 749 649	1 080 167	5 092 895	726 716	2 422 386	735 434	2 451 448	736 870	2 456 234	5 292 703	21 267 819

Appendix 11. Direct and indirect costs for biodiversity in the field of environmental protection, thousand KZT

Activities	2008		2009		2010		2011		2012		2013		2014	
	Expenses for BD	Expenses	Expenses for BD	Expenses	Expenses for BD	Expenses	Expenses for BD	Expenses	Expenses for BD	Expenses	Expenses for BD	Expenses	Expenses for BD	Expenses
Observations of the environment state	279 485	558 969	298 068	596 136	353 491	706 981	423 117	846 233	1 054 319	2 108 638	598 717	1 197 433	1 115 083	2 230 165
Development of quality and quantity indicators (environmental regulations and requirements)			21 488	42 975	21 488	42 975	17 915	35 829	23 460	46 920			23 460	46 920
State environmental expertise			1 898	3 796	2 123	4 245	2 123	4 245						
Scientific research in the field of environmental protection	156 015	312 029	145 400	290 800	105 330	210 660	56 746	113 492	168 950	337 900	110 402	220 803	38 335	76 669
Total	435 499	870 998	466 854	933 707	482 431	964 861	499 900	999 799	1 246 729	2 493 458	709 118	1 418 236	1 176 877	2 353 754

Appendix 12. Financing biodiversity from local budget, thousand KZT

Activities in field of	2009	2010	2011	2012	2013	2014	Total
Forestry	1 376 363	1 765 360	2 707 011	2 599 675	2 500 892	2 550 057	13 499 358
Wildlife	505 627	390 968	221 795	446 828	249 330	475 011	2 289 559
Fishery	37 616	26 799	33 779	44 070	14 612	27 397	184 273
PAs	22 134	81 899	102 024	67 094	55 964	108 152	437 267
Total	1 941 740	2 265 026	3 064 609	3 157 667	2 820 798	3 160 617	16 410 457

Appendix 13. Dynamics of revenues from HC services, thousand KZT

Region	2009	2010	2011	2012	2013	2014	Total
Akmola	34 983	48 330	53 565	36 655	96 317	78 840	348 690
Aktobe	6 228	9 049	14 186	14 478	15 707	13 887	73 535
Almaty	17 510	23 340	17 578	32 336	38 307	16 315	145 386
Atyrau	3 443	4 852	6 420	4 735	8 838	10 470	38 758
East Kazakhstan	22 366	24 286	29 159	34 587	30 578	40 925	181 901
Dzhambyl	3 227	4 641	5 975	7 857	No data	7 673	29 373
West Kazakhstan	4 978	3 763	6 563	5 387	8 741	11 373	40 805
Karagandy	11 853	8 636	4 519	4 377	7 420	4 844	41 649
Kostanai	No data	19 574	22 966	28 112	30 345	36 937	137 934
Kyzylorda	643	853	No data	1 932	1 995	2 177	7 600
Mangistau	748	1 047	1 162	1 434	1 959	2 342	8 692
Pavlodar	5 165	7 640	7 444	7 514	8 456	9 379	45 598
North Kazakhstan	23 260	26 637	29 522	33 225	51 619	52 228	216 491
South Kazakhstan	2 075	2 342	11 964	15 415	18 666	2 177	52 639
Total	136 479	184 990	211 023	228 044	318 948	289 567	1 369 051

Appendix 14. Activities performed by international and other donors in the field of biodiversity, thousand KZT

Activities	2008	2009	2010	2011	2012	2013	2014	Total
Avalon							174 265	174 265
«Biodiversity preservation in the transboundary region of Northern Tien Shan»							174 265	174 265
ASBC		159 827	56 646	67 930	114 395	50 693		449 490
«Spring and autumn accounting of rare wild animals»					2 395			2 395
BirdLife. Monitoring of key species of white-headed duck in RK						2 265		2 265
Altyn Dala: support of preservation at the ecosystem level. Darwin (920-G-ADAL)			18 789	13 349	15 249			47 387
Alliance for preservation of saiga population			4 781					4 781
Integration of environmental learning into school curricula and awareness-raising of local population on preservation of saiga (Project of Brands Fund)		13 943						13 943
Coordination of MOUs on the saiga				1 095				1 095
Routes of waterfowl			1 311					1 311
Nomination of Western Tien-Shan		450		779				1 229

Activities	2008	2009	2010	2011	2012	2013	2014	Total
Action Plan for plovers			2 300					2 300
Planning of land use and zoning of reserve Altyn Dala and productive landscapes for preservation of steppes and semi-desert steppes as habitat of saiga.		13 388						13 388
Preparation of measures for the translocation of Przewalski horses in the national Park Altyn Emel				2 100	6 825			8 925
Support for plover work in Kazakhstan – project Darwin(920-G-DASL II)		2 132	3 025	104	1 334	3 435		10 030
Conducting TOT in transient ways			6 383					6 383
Project of local subsidies GTZ 2009		15 488						15 488
Project of local subsidies GTZ 2010			2 086					2 086
Development and implementation of program on reintroduction of Przewalski horses in the Turgay region					1 700			1 700
Development and implementation of program on reintroduction of Przewalski horses in the Turgay region					500			500
Reintroduction of Przewalski Horse					4 939			4 939
Seminar on diseases of saiga				1 825				1 825
Seminar on veterinary						1 510		1 510
Seminar on coordination of MOUs on saiga				1 050				1 050
Preservation of wild birds		5 670	7 691	9 006	9 240			31 607
Preservation of populations					7 400			7 400
Preservation of populations of globally significant species in cooperation with students and local population		1 445						1 445
Preservation of Ustyurt plateau landscape				11 925	3 650	24 550		40 125
Preservation of saiga. Initiative for preservation of Altyn Dala steppe		14 000						14 000
Preservation of saiga. Initiative for preservation of Altyn Dala steppe				14 977	27 237	16 942		59 156
Country support, Kazakhstan		9 172	7 088	9 599	14 553			40 411
Management of fauna in Kazakhstan. GTZ Component for Central Asia		84 139				1 236		85 375
Accounting plovers						755		755
Accounting lesser white-fronted goose			3 192	2 121	19 373			24 686
World bank	514 058	812 983	1 687 440	1 720 988	534 196	393 770	827 593	6 491 027
«Regulation of the riverbed of Syrdarya and preservation of the Northern Aral Sea (phase 1-2)»	223 887	354 696	300 900	242 515				1 121 998

Activities	2008	2009	2010	2011	2012	2013	2014	Total
Development of underground water protection facilities and effluent treatment in the city of Ust-Kamenogorsk		19 945	37 255		7 012	44 143	39 244	147 599
Rehabilitation and environmental management of Nura and Ishim rivers basins	158 962	139 731	102 397	8 688				409 778
The preservation of Western Tien-Shan biodiversity	28 028							28 028
Preservation of forests and increase of forest cover of the Republic	103 181	298 610	1 246 888	1 469 785	527 184	349 627	788 349	4 783 624
SGP/GEF	36 880	25 801	9 119		20 396	33 939	353 400	479 535
«Manul» - biodiversity preservation and development of alternative activities in hunting		7 145						7 145
Revival of endemic fish species in Alakol lake system. Development of pond farming.»					740			740
Demonstration of measures to reduce the loss of rare species of prey birds on power lines by creating a model section of power lines equipped with bird protection devices						6 054		6 054
Demonstration of practical approaches to restore biological diversity in Jungar Alatau through the development of economic opportunities for the inhabitants of the village Kokjar		4 391						4 391
Kuraksu: restoration of habitats of rare and valuable species of animals and organization of rational nature use		6 915						6 915
Liquidation of consequences of irrational use of biological resources in important bird areas	6 000							6 000
Capacity building of various focus groups in the sphere of development of ecological tourism as a mechanism for preservation and sustainable use of biodiversity components						6 975		6 975
Sustainable use of components of biodiversity in the framework of tourism activities by implementing the concept of ecotourism	1 740							1 740
Support to sustainable land management in steppe and semi-arid zones by promoting integrated territorial planning and agro-environmental incentives							353 400	353 400
Capacity building of SPNTs and participation of local communities in snow leopard preservation and its habitat in East Kazakhstan region						5 685		5 685
Support to local initiatives for sustainable preservation of important bird areas (IBA)					7 400			7 400

Activities	2008	2009	2010	2011	2012	2013	2014	Total
Development of bee breeding in territories around the reserve of Aksu-Zhabagly	4 440							4 440
Development of project «Berkut»: improvement of habitats, forage base for predatory birds and pastures by flooding the gorge of Karabulak	720							720
Development of pond farming in the village of Amanotkel					6 016			6 016
Reduction of anthropogenic pressures on biodiversity of delta lakes						7 429		7 429
Promotion biodiversity preservation of the Almaty nature reserve and adjacent territories, by involving the local population in the development of ecological tourism	4 347							4 347
Creation of fast growing plantations as a method to reduce anthropogenic pressure on forest ecosystems of Katon-Karagai state national natural Park		2 100						2 100
Creation of a specialized ecological route	4 500							4 500
Biodiversity preservation in the Uygur district of Almaty region through the restoration of the number of bee colonies in the region	4 587							4 587
Biodiversity preservation of delta lakes of Syrdarya river					6 240			6 240
Biodiversity preservation of Naurzum reserve and reduction of land degradation in Kostanay region						4 776		4 776
Biodiversity preservation of Naurzum reserve and adjacent areas through development of ecotourism and environmental awareness			2 160					2 160
Biodiversity preservation through organization of ecological tourism		5 250						5 250
Preservation of pilot important bird areas (IBA) with participation of students and local communities	6 000							6 000
Improvement of forage resources for migratory birds nesting in Alakol-Sasykkol system lake system and endemic fish species through the creation of forage base for the incubation workshop						3 020		3 020
Ecotourism in Korinsky gorge of Dzhungar Alatau. (Preservation of biological diversity)	4 546							4 546
Ecotourism in Central Kazakhstan: preservation of natural resources in SPNTs and creation of economic opportunities in rural areas (2 stages)			6 959					6 959

Activities	2008	2009	2010	2011	2012	2013	2014	Total
UNDP	837 767	807 000	1 351 149	453 445	110 831	672 056	182 541	4 414 789
Improvement of the system of planning, monitoring, preservation and efficient use of natural resources							3 461	3 461
In-situ preservation of mountain agrobiodiversity in Kazakhstan				453 445				453 445
Caspian Sea: restoring fish stocks and the establishment of a permanent regional environmental governance framework		705 000						705 000
Integrated preservation of high-priority globally significant wetlands as habitats of migratory birds: demonstration with three project areas			1 327 080					1 327 080
Support in updating of National action plan and reporting process and review of activities performance within the framework of the UN Convention to combat desertification in Kazakhstan			8 880					8 880
Planning of biodiversity preservation at the national level to support the implementation of the CBD Strategic plan in the Republic of Kazakhstan for 2011-2020.					35 520			35 520
Improvement of resilience of wheat production sector in Kazakhstan to climate change to ensure food security in Central Asia			15 189					15 189
Improvement of resilience of the protected areas system in desert ecosystems through promotion of biodiversity-compatible livelihoods in and around protected areas						672 056		672 056
Supporting integrated and comprehensive approaches to reduce natural disasters related to climate change, and adaptation to climate change in Kazakhstan.		102 000						102 000
Develop and implement an IC monitoring of biodiversity					75 311			75 311
Building transformative policy and financing frameworks to increase investment in biodiversity management, BioFin							86 580	86 580
Preservation and sustainable use of biological diversity of Kazakhstani part of the Altai-Sayan Ecoregion	562 007							562 007
Preservation and sustainable management of steppe ecosystems	268 800							268 800
Sustainable pasture management to improve rural livelihood and environmental integrity	6 960							6 960

Activities	2008	2009	2010	2011	2012	2013	2014	Total
Economic evaluation mechanisms to improve decision making and management of the implementation of commitments under the global environmental agreements, CB2							92 500	92 500
Biodiversity Conservation Fund of Kazakhstan	6 000	42 935	243 224	108 446	17 489	6 583		424 677
«Preservation of forests and increase of forest cover the territory of the Republic»		42 935	191 178	92 826	17 489			344 428
Aerial survey of birds in Korgalzhyn reserve						730		730
Recovery 3 dams in Korgalzhyn reserve			8 134					8 134
Grant "Lest us save the pearl of Beskaragay, Lake Shoshkaraly", with the aim of establishing a children's camp			1 911					1 911
Deposit for capitalization of FPBD funds	6 000		35 113	15 620				56 733
Provision of Karkalin SSPE with publishing base, etc			6 888					6 888
Provision of Korgalshin reserve with material and technical base						1 436		1 436
Provision of Korgalshin reserve with publishing base etc.						2 195		2 195
Carrying out reclamation activities to prevent fish death						996		996
Flamingo Festival						1 226		1 226
Total	1 394 705	1 848 546	3 347 577	2 350 809	797 307	1 157 041	1 537 799	12 433 783

Appendix 15. Financing from all sources, thousand KZT

Source of financing	2008	2009	2010	2011	2012	2013	2014	Total
Republic budget	27 681 179	12 409 049	13 894 399	15 988 260	22 746 585	21 143 503	22 824 761	136 687 736
Local budget		1 941 740	2 265 026	3 064 609	3 157 667	2 820 798	3 160 617	16 410 457
Private sector		226 321	732 931	935 364	956 116	518 009	381 740	3 750 480
PAs paid services	388 640	225 860	455 745	879 132	654 513	915 650	704 982	4 224 522
FCs paid services		305 329	228 383	343 407	415 202	346 909	281 231	1 920 461
HCs paid services		136 479	184 990	211 023	228 044	318 948	289 567	1 369 051
International and other donors	1 394 705	1 848 546	3 347 577	2 350 809	797 307	504 694	2 020 362	12 263 999
Total	29 464 524	17 093 323	21 109 052	23 772 604	28 955 434	26 568 511	29 663 259	176 626 705

Appendix 16. Financing from all sources, thousand USD

Source of financing	2008	2009	2010	2011	2012	2013	2014	Total
Republic budget	230 101	84 129	94 295	109 046	152 549	138 983	127 377	936 481
Local budget	-	13 164	15 372	20 902	21 177	18 542	17 638	106 795
Private sector		1 534	4 974	6 380	6 412	3 405	2 130	24 836
PAs paid services	3 231	1 531	3 093	5 996	4 389	6 019	3 934	28 193
FCs paid services		2 070	1 550	2 342	2 785	2 280	1 569	12 596
HCs paid services		925	1 255	1 439	1 529	2 097	1 616	8 862
International and other donors	11 594	12 533	22 719	16 033	5 347	3 318	11 275	82 818
Total	244 925	115 887	143 258	162 138	194 188	174 643	165 541	1 200 580

Appendix 17. Summary of public biodiversity expenditures in field of government budget

Sectors	2008	2009	2010	2011	2012	2013	2014	Total
PAs, tourism and wildlife	4 438 242	4 901 817	4 958 110	5 697 180	8 225 839	8 857 781	9 136 422	46 215 391
Forestry	15 382 576	6 585 031	7 363 409	10 438 324	12 199 311	11 498 044	10 861 467	74 328 162
Fishery	5 336 656	634 943	1 670 501	1 205 591	1 869 681	1 180 328	946 851	12 844 551
Water Resource (BD)	388 937	767 785	881 923	983 326	2 619 844	1 715 360	3 292 399	10 649 574
Agriculture (BD)		1 317 464	1 080 167	726 716	735 434	736 870		4 596 651
Environmental protection (BD)	435 499	466 854	482 431	499 900	1 246 729	709 118	1 176 877	5 017 408

Appendix 18. Expected future basic funding under the BaU scenario within republic budget, thousand KZT

Activities	2016		2017		2018		2019		2020		Total costs of BD	Total
	Expenses for BD	Expenses	Expenses for BD	Expenses	Expenses for BD	Expenses	Expenses for BD	Expenses	Expenses for BD	Expenses		
Management, conservation and development of forest resources and wildlife	15 506 728	15 506 728	15 364 287	15 364 287	15 195 334	15 195 334	16 714 867	16 714 867	16 714 867	16 714 867	62 781 216	62 781 216
Efficient water resources management	919 300	18 386 003	983 444	19 668 889	974 328	19 486 561	1 071 761	21 435 217	1 071 761	21 435 217	3 948 833	100 411 887

Improvement of the system of planning, monitoring, conservation and efficient use of natural resources	51 360	51 360									51 360	51 360
Creation of conditions for development of production, processing, sale of crops production	919 321	18 386 426	1 827 463	18 274 631	1 665 105	16 651 054	1 831 616	18 316 159	1 831 616	18 316 159	6 243 505	89 944 430
Implementation of the Concept on transition to "green economy" and "Green Bridge" Partnership program	161 995	161 995	84 770	84 770		-		-		-	246 765	246 765
Stabilization and improvement of the environment quality	586 686	1 173 371	35 589	71 177	37 333	74 665	41 066	82 132	41 066	82 132	700 674	1 483 476
Reduction of greenhouse gases emissions	81 227	162 453	78 601	157 201	78 674	157 347	86 541	173 082	86 541	173 082	325 043	823 165
Protection, preservation, restoration of forests and wildlife	745 738	745 738	746 878	746 878	739 378	739 378	813 316	813 316	894 647	894 647	3 939 957	3 939 957
Total	18 972 355	54 574 074	19 121 032	54 367 833	18 690 152	52 304 339	20 559 167	57 534 773	20 559 167	57 534 773	97 901 873	276 315 792

Appendix 19. Expected future basic funding under the BaU scenario, thousand KZT

Source of financing	2016	2017	2018	2019	2020	Total
Republic budget	18 972 355	19 121 032	18 690 152	20 559 167	20 559 167	97 901 873
Local budget	7 547 573	6 537 665	6 840 970	7 525 067	7 525 067	35 976 342
International and other donors	241 649	219 530	65 671			526 850
Total	26 761 577	25 878 227	25 596 792	28 084 234	28 084 234	134 405 064

