



**United Nations Development Programme**  
**Country: Kazakhstan**  
**PROJECT DOCUMENT**

**Project Title:** Supporting sustainable land management in steppe and semi-arid zones through integrated territorial planning and agro-environmental incentives

**UNDAF Outcome(s):** Environmental Sustainability. By 2015, communities, national and local authorities use more effective mechanisms and partnerships that promote environmental sustainability and enable them to prepare, respond and recover from natural and man-made disasters.

**UNDP Strategic Plan Primary Outcome:**

Outcome 1: Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded

**Expected CPAP Outcome(s):** Government, educators, communities, civil society and the academic community practice an integrated approach to natural resources management in national and transboundary perspectives.

**Expected CPAP Output (s):** Land authorities and stakeholders have the capacity to implement models for land-use planning and management and landscape conservation in steppe and rangeland areas.

**Executing Entity/Implementing Partner:** Ministry of Agriculture (MOA), KazAgroInnovation

**Implementing Entity/Responsible Partners:** Ministry of National Economy, Ministry of Energy, Oblast and Rayon Akimats

**Brief Description:**

This 5 year project is designed to transform land use practices in critical, productive, steppe, arid and semi-arid landscapes of Kazakhstan, which constitute the vast majority of its territory, thus ensuring ecological integrity, food security and sustainable livelihoods. Building upon the past experience of GEF funded projects' efforts, the project will create a more conducive policy and legal framework for establishment of agro-environmental incentives for sustainable and better integrated pasture and land use planning and management, and build national and local capacity for practical implementation of such planning in the field. Existing best practices and approaches will be replicated at a wider scale within selected representative oblasts namely – Akmola, Kostanai, North and East Kazakhstan Oblasts (i.e., the northern steppe zone: forest steppe, meadow steppe and dry steppe ecosystems), and Almaty and Kzyl Orda Oblasts (i.e., the southern arid zone: desert and steppe semi-desert ecosystems) of the country.

Programme Period:	2010-2015
Atlas Award ID:	00086869
Project ID:	00094050
PIMS #	5358
Start date:	August 2015
End Date	July 2020
Management Arrangements:	NIM
PAC Meeting Date	tbd

Total resources required:	USD 10,859,907
Total allocated resources:	USD 10,859,907
o GEF	USD
1,900,000	3,224,400
o Other	USD
8,959,907	13,382,

**Agreed by (Government):**

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Name	Signature	Date
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**Agreed by (UNDP):**

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Name	Signature	Date
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## ACRONYMS AND ABBREVIATIONS

APR/PIR	Annual Project Review/Project Implementation Reports
ASEPAS	Analytical Center of Economic Policy in Agricultural Sector
AWP	Annual Work Plan
CACILM	Central Asian Countries Initiative for Land Management
CAP	Contracts and Assets Procurement
CF	Country Farm
CPAP	Country Program Action Plan
DRR	Deputy Resident Representative
EC	Extension Center
GEF	Global Environment Facility
GIS	Geographic Information System
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
GOK	Government of Kazakhstan
GSF	Graduate School of Farmers
ha	hectares
hwt	hundredweight
ID	Identifier/ Identification
ILUP	Integrated Land Use Plan
JSC	Joint Stock Company
kg	kilogram
km	kilometer
KSU	Kostanai State University
KSUA	Kazakh State University of Agriculture
KZT	Kazakhstani Tenge
LD	Land Degradation
LLP	Limited Liability Partnership
MEWR	Ministry of Environment & Water Resources
MOA	Ministry of Agriculture
NAP	National Action Program to Combat Desertification
NEX	National Execution
NGO	Non-government Organization
NIM	National Implementation Modality
OECD	Organization for Economic Co-operation and Development
PA	Public Association
PAC	Project Appraisal Committee
PB	Project Board
PIMS	Project Information Management System
PIR	Project Implementation Review
PM	Project Manager
PPG	Project Preparation Grant
RBM	Results Based Management
RCCWU	Rural Consumer Cooperative of Water Users
RCU	Regional Coordination Unit
RO	Rural Okrug
SBAA	Standard Basic Assistance Agreement
SLM	Sustainable Land Management
SPK	(Russian acronym for) Agricultural Production Cooperative
SRI	Scientific Research Institutions
tbd	to be determined
UNCCD	United Nations Convention to Combat Desertification
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Program
UNDP-GEF	United Nations Development Program – Global Environment Facility unit
UPL	Universal Price List
USAID	United States Agency for International Development
USD	United States Dollar
WB	World Bank
WG	Working Group

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## 1. SITUATION ANALYSIS

### 1.1 Geographical and land degradation context

1. The Republic of Kazakhstan (RK) is the largest land-locked country in Central Asia. It is the ninth largest country in the world in terms of land area, spanning 271.73 million hectares. It extends almost 2,000 km from the Caspian Sea in the west to the border of China in the east and nearly 1,300 km from central Siberia in the north to eastern Uzbekistan in the south. The Republic borders Turkmenistan, Uzbekistan, and the Kyrgyz Republic in the south, Russia in the north, China in the east, and the Caspian Sea in the west. The country had an estimated population of 17,037,508 in 2013<sup>1</sup>, with a low population density of six persons per square kilometer<sup>2</sup>.

2. Dryland ecosystems (i.e., desert, desertified and dryland steppe ecosystems) cover most of the country (99 percent of its territory) with annual average precipitation of 100-200 millimeters. Land area used in agriculture totals 222.6 million hectares, 10.8 percent of which is covered by field crops, 2.2 percent by hayfields, and 85 percent by pastures.<sup>3</sup> The availability of arable land per inhabitant (1.5 hectares) is the second highest in the world.<sup>4</sup>

3. An estimated 82% of all land types in the country, of which about 80% is agricultural land, is subject to erosion. Wind and water erosion affect over 67% of rain-fed areas, resulting in loss of humus content in topsoil (20% in the past 30 years)<sup>5</sup>. The main economic consequences of desertification and land degradation are reduced agricultural yields and crop production; decreased cattle and camel stocks and declining profitability of animal husbandry; decreased export capacity of agriculture; stagnation of the agribusiness sector; and a sharp decrease in tax revenue from the agricultural and food processing sectors. The total annual economic loss due to a mixture of land degradation and poor agricultural management in Kazakhstan is estimated to be around \$700,000,000, with poor households paying the highest price<sup>6</sup>.

4. The southern arid regions and the northern steppe zones of Kazakhstan, which are the focus of this UNDP project entitled " Supporting sustainable land management in steppe and semi-arid zones through integrated territorial planning and agro-environmental incentives" ("the Project" hereafter), are no exception. The southern arid regions of Kazakhstan are particularly prone to desertification with about 75% of arable and pasturelands ranked with a desertification index of high to very high. Areas of land subject to wind erosion occupy 25.5 million ha, and those subject to water erosion more than 5 million ha, of which 1 million ha are arable land. The largest areas of land affected by water erosion can be observed in the southern regions of Kazakhstan – 958.7 thousand ha in total – of which eroded arable land makes up 223.6 thousand ha. The processes of erosion on irrigated fields and pastures in southern regions of Kazakhstan have developed rapidly in recent years: every year 19 million tons of soil are washed off with 400 thousand tons of humus. This means that about 2.5–2.6 million tons of manure would be needed annually to cover these losses<sup>7</sup>.

5. The northern steppe zone lands are also highly susceptible to wind and water erosion due to loss of humus and vegetation cover resulting from the massive conversion of steppe to grain farming and ongoing unsustainable farming and pastoral practices in these already marginal lands. Soil erosion

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<sup>1</sup> Data from <http://databank.worldbank.org/data/views/reports/tableview.aspx>

<sup>2</sup> Data from <http://data.worldbank.org/indicator/EN.POP.DNST>

<sup>3</sup> Ministry of Agriculture (2013)

<sup>4</sup> OECD (2013), OECD Review of Agricultural Policies: Kazakhstan 2013, OECD Publishing.

<sup>5</sup> The Fourth National Report of Kazakhstan on Implementation of the UNCCD (with comments and additions). 2012. Astana, Republic of Kazakhstan

<sup>6</sup> CACILM Multicountry Partnership Framework Project Document, 2006, Asian Development Bank

<sup>7</sup> Saparov, A. 2014. Novel Measurement and Assessment Tools for Monitoring and Management of Land and Water Resources in Agricultural Landscapes of Central Asia. Soil Resources of the Republic of Kazakhstan: Current status, problems and solutions.

processes show high intensity in the Akmola, southern regions (Kzyl Orda, Southern Kazakhstan and Almaty).

6. Today, over 62% of winter pastures and 71% of summer pastures are eroded and the quality of pastures has declined by 4-5 times compared to the 1980s<sup>8</sup>. Kazakhstan's rangelands are susceptible to droughts, inadequate natural regeneration, widespread aerial transportation of sand and salt (affecting some 30 million ha) and formation of salinized or "solonchak" lands (more than 93 million ha).<sup>9</sup> Between 1951 and 2011, the stocking rate of livestock increased 5 times over the carrying capacity of pastures. Just in the past decade, sheep grazing in Kazakhstan has nearly tripled. The pressure on pastures is intensified by the declining practice of moving livestock between summer and winter pastures, and increased livestock density, especially in areas around settlements, i.e. communal winter pastures<sup>10</sup>. Despite their low productivity, vast horizontal pasturelands<sup>11</sup> are being used increasingly for sheep grazing, leading to soil erosion and mudslides. The combined impact generates erosion, depleted soil carbon stocks, increased frequency of mudslides with significant economic and social costs downstream in the form of flooded villages and damaged infrastructure.

## 1.2 Agricultural sector and sustainable land management

7. The Land Code of RK divides the total land area into 7 categories according to the purpose of its use as follows: (i) agricultural lands, (ii) non-agricultural lands, (iii) urban lands, (iv) protected area lands, (v) forestlands, (vi) aquatic areas, and (vii) land reserves<sup>12</sup>. Agricultural lands, in turn, are subdivided into arable lands, fallow lands, perennial plantations, hayfields and pastures. Arable lands comprise the most valuable type of land constituting 10.9% of the total farmland area. Over 70% of dry arable lands are located in three regions: Akmola, Kostanai, and Northern and Eastern Kazakhstan; 60.7% of irrigated arable lands are present in southern regions of Kazakhstan (Almaty and Kzyl Orda oblasts).

8. According to the Agency of Statistics and MOA, the irrigated arable land area has reduced since the 1990s by 95% in Akmola oblast, by 80% in Kostanai oblast, by 11% in Almaty oblast, and by 23.7% in Kzyl Orda oblast. Inefficient use of irrigation water<sup>13</sup>, unsustainable land use and cultivation practices that lead to decreased humus content and adverse changes in the soil structure resulting in soil compaction, salinization, wind and water erosion stand out as major causes of this change. Ineffective and, in many cases, obsolete irrigation infrastructure is another factor contributing to declines in irrigated arable land area.

9. According to the Land Management Committee of the Ministry of National Economy, up to 15% of agricultural lands are managed in unsustainable ways. The majority of leased agricultural lands (which constitute most of agricultural lands) are not used for designated purposes or not used at all. Land users have no motivation (either economic or legal) to implement soil conservation or wind and water erosion prevention measures. Rather, farmers tend to resort to "extractive" land use practices that generate short-term benefits and leave degraded land behind. For example, "extractive" land use practices are commonplace in rice production in Kzyl Orda and Almaty regions. An easy way out for the government is to convert lands under the land reserves category into agricultural lands, a tendency that has been observed in recent years.

<sup>8</sup> According to the Committee of Land Resources of the Ministry of Regional Development of Kazakhstan

<sup>9</sup> National Programming Framework of Kazakhstan under CACILM. 2009

<sup>10</sup> Landscape and biological diversity in the Republic of Kazakhstan. UNDP (2005)

<sup>11</sup> Seasonal movements of livestock can be vertical (winter & summer pastures) or horizontal (moving the livestock along the same horizontal trail based on climate conditions -- such as temperature, moisture content -- and forage availability during a day.

<sup>12</sup> Land reserves include idle or "long fallow" lands. This is arable land that has remained unplanted for at least several years. A significant amount of arable land was essentially abandoned following the breakup of the Soviet Union in 1991, including land that was only marginally productive and which specialists agree should never have been used for crop production. Ministry of Agriculture estimates idle lands at approximately 5 million hectares, only 2 million of which can be used for crop production.

<sup>13</sup> For example, crop productivity in Kazakhstan makes up 0.8 kg per cubic meter of irrigated water, whereas in western countries it reaches 2.5-6.0 kg.

### 1.2.1 Crop production and land degradation impacts

10. Vast land areas and diverse natural climatic conditions allow for the production of various agricultural crops. The total cropland area in RK amounted to 21.5 million ha in 2013, of which wheat accounted for 13.1 million ha, grain crops – 15.9 million ha, oil-bearing crops – 1.9 million ha, sugar beet – 4.9 thousand ha, potatoes -186.8, and vegetables & melons - 215.6 thousand ha. Wheat is the predominant crop in the northern parts of RK, whereas rice, cotton, fodder and fruit are predominant in the southern parts.

11. About 75 percent of the country's wheat is produced in three oblasts in north-central Kazakhstan: Kostanai, Akmola, and North Kazakhstan oblasts. Kostanai oblast alone plants about 4 million hectares of wheat. Spring wheat occupies 95 percent of the total wheat area in Kazakhstan and virtually all of the wheat in the three north-central oblasts. Minor grains include spring barley and oats (which are grown in the same region as spring wheat), winter wheat (southern Kazakhstan), and rice (southern Kazakhstan, mostly in Kzyl Orda oblast). Kazakhstan is an important producer and exporter of high-quality wheat. Grain quality is highest in the more southern (and drier) production regions of the main production zone in north-central Kazakhstan, with protein content reaching 14 percent in Akmola and southern Kostanai oblasts. Average annual wheat production is about 13 million tons, but output is highly dependent on weather and in recent years has fluctuated between 10 and 17 million tons. The average wheat yield in 2013 was registered at 1.08 ton per hectare (with lowest yield of 0.5 t/ha and the highest of 30 t/ha).<sup>14</sup>

12. Rice production is widespread in 11 rural rayons of Almaty, Kzyl Orda and South Kazakhstan oblasts<sup>15</sup>. The rice zone includes the downstream areas of the Syr Darya and Ili Rivers. The present total rice area in these regions is about 113,000 ha, which is equivalent to 17% of the total irrigated area in Kazakhstan. More than 80% of the total rice production in Kazakhstan depends on the rice growing area in the Kzyl Orda oblast. The average rice yield in the country is estimated at 3.85 t/ha<sup>16</sup> (versus a global average of around 4.4 tons per hectare) and the average yield has a tendency to decrease.

13. Rice production faces accelerating agronomic problems including the salinization of irrigated fields. In particular, most of the rice paddy fields show wash-out of salts during the irrigation period. Rice yields are adversely affected by the remaining soil salinity, deep ponding water and insufficient drainage capacity. Salt accumulation has a tendency to increase with cropping years and is associated with groundwater depth that becomes shallower at the lower parts of the irrigation systems, adversely affecting the crop growth in most fields.

14. At present, soils with low humus content (less than 4%) occupy 12.2 million ha or 66% of the total arable land area. Soils with average content of humus in arable land structure make up 32%, and with high content – 2%. The annual loss of humus in agriculture in Kazakhstan is estimated at 1.2–1.6 t/ha<sup>17</sup>. The processes of de-humification classified as stage 1 (low degree) cover 4.5 million ha of arable land, stage 2 (moderate degree) - 5.2 million ha, and stage 3 (strong degree) 1.5 million ha. On irrigated arable land, 0.7 million ha are subject to de-humification. The main reasons for humus loss are the inefficient use of land, and, most importantly, neglect of scientifically justified land cultivation systems.

15. One of the reasons for low fertility of arable land is the lack of nutrient replenishment through application of fertilizers. In 1990, organic fertilizers were applied to 668,000 ha, whereas in 2008, the application of organic fertilizers decreased to 21,000 ha. In terms of mineral fertilizers, the highest level of application was noted in 1986 with 1 million tons of active ingredient being introduced, and 29 kg were applied per ha. In 2010, levels of application decreased by 12.7 times, and per ha application fell by

<sup>14</sup> Statistical data of the Ministry of Agriculture of the Republic of Kazakhstan. 2013.

<sup>15</sup> Overall, Kazakhstan consists of 160 rural rayons and 12 urban rayons.

<sup>16</sup> Agency of Statistics of the Republic of Kazakhstan, 2013.

<sup>17</sup> Saparov, A. 2014 (quoted earlier)

8.8 times<sup>18</sup>. Even though acquisition of fertilizers by agricultural producers is subsidized by the state at 50% of their cost, fertilizer application rates have declined, as evidenced by data.

16. The role of weeds in reducing crop yields is well-recognized by the government. Monitoring of 9.7 million ha of arable lands carried out in 2012 showed that 8.9 million ha or 92% were weedy contributing to a real loss of crop from weeds amounting to 10% of gross harvest on average. The MOA acknowledges that low professionalism of farmers, non-observance of crop cultivation practices and poor quality of seeds<sup>19</sup> contribute significantly to a high percentage of weeds in crop fields. Instead of changing land cultivation practices, enhancing land management and cultivation skills, and buying good quality seeds, farmers usually resort to aggressive weed-control measures such as herbicide application that, in turn, adversely impact the soil quality.

17. The limited use of crop rotation (also called sequence of cropping) in current agricultural practices is another factor contributing to the loss of fertility of arable land and low productivity of the main cultivated crops<sup>20</sup>. In Soviet times, collective farms and state farms strictly observed the technology of crop rotation as a method for maintaining soil fertility<sup>21</sup>. The four-crop (or four-field) rotation method was the most popular. In wheat production, it typically included two consecutive years of wheat followed by one year of barley, oats or sometimes an oilseed crop depending on the location. With the collapse of the previous management system leading to redistribution and fragmentation of lands, farmers who now mostly own or rent small plots of land have almost stopped the practice of crop rotation, sowing the same crop every year. This stems from an overall lack of a sense of ownership among most farmers and their shortsightedness. The continuous use of the same tillage implements creates compact soil layers that become not only physical barriers but inhibit, due to their low oxygen content, the growth of plant roots. Water infiltration into the subsoil is drastically reduced with a simultaneous increase in surface runoff, loss of soil, nutrients, organic matter, calcium and seeds, gradual soil salinization, and wind and water erosion. This ultimately results in the transfer of considerable arable land areas that are no longer suited for cultivation to abandoned lands. Rice cultivation serves as another striking example of detrimental environmental consequences of growing a single crop for many consecutive years. Cheap irrigation water along with a stable sales market are factors that discourage rice producers from applying crop rotation, which in turn results in heavy soil salinization and reduced soil fertility.

18. The government has made several attempts to revive the technology of crop rotation and move away from monoculture cropping. As such, crop diversification was included in the Program for Development of the Agricultural and Industrial Sectors for 2010-2014, in the Agribusiness 2020 Program and in a MOA's Master Plan for fixing the grain area. The documents highlight the need for crop diversification to align the cropland structure with science-based recommendations and norms. For northern wheat growing areas, for example, the government recommends the use of forage legumes as a predecessor that enhances soil structure and quality thus increasing wheat yields in successive cropping years. However, so far the process of diversification is very slow due to the lack of a well-structured mechanism of support for the transition to such agricultural practices, particularly for small and medium agricultural producers.

19. In summary, critical and unresolved issues in the crop production sector include, but are not limited to, monoculture cropping and poor diversification of agricultural crops that result in decreased land fertility, water and wind erosion; disunity of farms and small plots of lands that make it harder to apply crop rotation and use modern resource-saving technologies<sup>22</sup>; obsolete state of irrigation networks resulting in salinization of irrigated arable lands and decrease in crop yields; low percentage of the use of

<sup>18</sup> Master Plan "Promotion of Rational Land Use", Ministry of Agriculture, 2013-2020

<sup>19</sup> Low quality seeds usually mixed with weed seeds

<sup>20</sup> Some large farms that have good crop agronomists on staff or managed by former agronomists continue using the crop rotation method, but this experience is very limited.

<sup>21</sup> Notably, the principle of rational (sound) land use was well-observed in internal land use planning by kolhoz and sovhoz.

<sup>22</sup> Disunity of farms is an acute problem in the agricultural sector that often undermines implementation of many good government policies on the ground. This issue goes beyond the project's scope but will be indirectly addressed within its legal and policy related component.

water saving technologies (e.g., drip irrigation, moistening, overhead irrigation); insufficient dissemination of knowledge on new and more efficient technologies and lack of farmer training; limited access to low cost credits for medium and small holders; and imperfect legislation concerning sustainable land management requirements (lack of sustainability requirements for arable lands, hayfields and pastures) and agrochemical monitoring.

### 1.2.2 *Livestock breeding and land degradation impacts*

20. Rural households (small or medium-size holders) are the dominant agricultural unit that keep livestock, and are the main suppliers for the meat market in the country. Households own 82.4% of cattle, 70.2% of sheep and goats, 78.6% of pigs, 72% of horses and 47.6% of birds. Livestock productivity indicators are several times lower compared to international indicators<sup>23</sup>.

21. At present, with intensive support from the government, livestock growth is exhibiting a positive trend. However, the sector continues to experience shortages of good quality forage for cattle breeding. Even though Kazakhstan is ranked 5<sup>th</sup> in the world in terms of pasture resources (187 million ha), only 77 million ha or 40.7% of its pasture resources are in use, out of which just 67% of pasturelands have good quality forage suitable for grazing.

22. Pasturelands in Kazakhstan are affected by uneven use. Over 125 million ha of pastures are lacking watering points, thus restricting their utilization. On the other hand, some pastures are being over used insofar as 27.1 million ha of pastures that are located around settlements are classified as highly degraded due to unsustainable use. The number of animals owned by a rural family in Kazakhstan is frequently too low to justify the cost of moving (i.e. transport and petrol costs, hiring a herdsman) the flock to distant pastures.<sup>24</sup> Moreover, the poor infrastructure in distant pastures (i.e. watering places, roads, seasonal facilities for herders, electricity) makes distant pastures even more unattractive and these areas remain under-grazed. Livestock continues to graze on lands around settlements resulting in further degradation of these lands that can only generate poor quality forage. This, in turn, leads to low productivity of cattle.

23. According to the MOA, the use of distant pastures has the potential to increase the share of meat in agricultural production to 60% generating substantial economic benefits to farmers, and environmental benefits in terms of reduced degradation at over-used pastures. But with limited motivation being provided by the government, this potential has not yet been realized.

24. Even though the Land Code (2003) allows for private ownership of arable land, including rangelands, current rangeland tenure arrangements<sup>25</sup> are vague and open to some abuse with large tracts of land being allocated to a limited number of persons or entities. An emerging trend of absentee land ownership – often by urban, wealthy land owners – results in insufficient attention to environmental and social sustainability issues on managed lands.<sup>26</sup>

<sup>23</sup> Program on Agrarian and Industrial Complex Development in the Republic of Kazakhstan for 2013-2020 (Agribusiness 2020). Astana, 2012. p. 97.

<sup>24</sup> Pender J., Mirzabaev A. Kato E. 2009. Economic Analysis of Sustainable Land Management Options in Central Asia. Final Report. Asian Development Bank.

<sup>25</sup> There are several types of rangeland tenure in Kazakhstan: (1) Lichnoye podsobnoye khozaistvo - small holder village system (<40 sheep equivalents), owning small household plots and having access to communal pastures near settlements; (2) Krestianskoye khozaistvo - private (extended) family and semi-settled system (about 40 or more sheep equivalent); (3) Group or corporate farms, consisting of joint stock companies, limited liability partnerships, and producers' co-operatives (about 1,000-4,000 sheep equivalents); (4) Independent landowners or land owning companies, usually based in cities, which have accumulated large land holdings used either for agriculture, hunting or leasing to herders; (5) Government enterprises, such as research institutes and experimental farms of the State Land Reserve Fund, which also includes erstwhile rangelands that were brought under the plough in the 1950-70s for cereal production and later abandoned during the privatization process after independence (total of ~ 100 mln ha).

<sup>26</sup> Schilhorn van Veen et al. 2005. Kazakhstan Rangelands in Transition: the Resource, the Users, and Sustainable Use. Technical Paper. Europe and Central Asia Environmentally and Socially Sustainable Development Series. Washington, DC: World Bank

### 1.3 Legislative context for sustainable land management

25. At present, sustainable land management (SLM) is not specified in national legislation. Instead, the notion of the rational use of land resources is widely used. Unlike SLM, social and ecosystem dimensions of land use and management are not applied in the rational use principle. Currently, almost all legislation that regulates land use and management in Kazakhstan refers to the rational use principle.

26. The government has devised a solid legal and policy framework that covers land resource management issues, including the Constitution of the RK, international treaties and a number of laws and regulations of the government, central and local executive bodies. The most relevant national laws and policies, with a particular emphasis on the agricultural sector and the link to sustainable land management, are summarized below.

#### 1.3.1 Laws relevant to SLM

27. The Constitution of the Republic of Kazakhstan: According to point 3 of Article 6 of the Constitution of the RK, land can be a private property on the basis, conditions and within the limits specified by the law. According to Article 38 "the citizens of the Republic of Kazakhstan are obliged to protect the nature and to save natural wealth". So, the Constitution establishes the supremacy of the state in definition of property rights and land turnover. At the same time, legal issues of property and land relations are regulated by laws and acts that are equal in validity, and based on the general principles and standards of the Constitution. The Land Code is such an act in the field of land relations.<sup>27</sup>

28. Land Code dated 20 June 2003 №442-II (with changes and amendments as of 07 November 2014): The Code specifies the following principles and tasks of the legislation on land management: land conservation and prevention of damage; regulation of land relations to secure rational land use and protection, restoration of soil fertility, conservation and improvement of natural environment; protection of natural and legal entities' and state's rights for land; availability of land use at a price (Articles 4 and 5 of the Code). Point 3 of Article 6 of the Code envisages that implementation of rights by land relations subjects should not damage land and other objects of environment. Point 3 of Article 6 of the Code specifies the details of these norms, namely inadmissibility of abuse of land rights in relation to other subjects of land relations, as well as to natural resources. The legislation on land is focused on strengthening legal aspects in land relations, securing safety and improvement of natural resources through their rational use (Article 5, Chapter 17 of the Code). The specified provisions are supported by a related legal mechanism. In particular, in the case of violation of rules on rational land use or the land use, which leads to significant loss in its fertility, or considerable aggravation of the ecological situation, the land plot may be withdrawn from the land owner or the land user (Article 93 of the Code). The owners and land users are obliged (Article 140 of the Code) to use the land according to its purpose; to apply the production technologies conforming to sanitary and ecological requirements, implement measures for land conservation and protection from depletion and desertification, different types of erosion, bogging, secondary salinization, dehydration, soil-packing, pollution by production and consumption wastes, chemical, biological, radioactive substances and others; protection from contamination of farmlands with quarantine pests and plant diseases, from overgrowth by weeds, bushes and low forests, from other types of land condition aggravation; land reclamation, restoration of its fertility and other useful land properties; removal, conservation and use of a fertile soil layer at land reclamation works associated with transportation/ infrastructure projects. Articles of the Land Code (139, and 149 point 3) envisage the introduction of ecological standards of 'optimum land use' and the use of landscape planning and management.

29. To make the land owners and land users more interested in rational use and protection of lands, the Land Code envisages economic incentives for protection and use of lands to be specified by budgetary

<sup>27</sup>The Resolution of the Constitution Council of the Republic of Kazakhstan dated 10 June 2003 N 8

legislation and tax legislation. However, the latter do not as yet consider this issue of economic incentives.

30. Concerning pastures, point 3 of Article 26 of the Land Code establishes a ban on the transfer of pasturelands and hay fields that are in use and intended for meeting the needs of the population to separate property. According to point 1 of Article 101, distant pastures are granted to citizens for temporary use free of charge. Thus, the Land Code preserves the rights for seasonal pastureland use. As a whole, the established regime of a combination of property rights and grazing rights provides legal conditions for addressing the existing problem of pastureland degradation in Kazakhstan related to concentration of livestock and increased grazing load on pastures around settlements and water sources.

31. Also, the Code classifies natural grasslands and areas used by community members as grasslands and/ or pastures (about 17 million ha) as “communal” lands (usually areas around settlements) that remain in the domain of the state and cannot be in private ownership (Article 26.3). Local communities have a right to use communal lands free of charge. While the Code favors the rights of community members in accessing communally owned lands, it provides limited guidance and institutional oversight for land use management around settlements to ensure long-term efficient use of communal lands from both ecological and economic perspectives. Communal use of pastures and grasslands is currently poorly controlled, especially in the more densely populated areas.

32. The Environmental Code dated 09 January 2007 № 212-III (with changes and amendments as of 11 April 2014) regulates protection, restoration and conservation of the environment, the use and reproduction of natural resources in light of economic and other activities related to the use of natural resources, and environmental impact. Also, the Environmental Code defines the development of sustainable production and consumption models; achievement of the state’s goal on ensuring favorable environment for human life and health; environmental protection and biodiversity conservation, etc. The Environmental Code establishes a system of state monitoring and control in regard to implementation of a set of actions to improve land condition, to prevent and eliminate the impacts of processes leading to land degradation, to restore and maintain soil fertility (Article 114). The Code (Article 216) specifies ecological requirements for optimum land use (Article 217). The owners of land plots and land users are obliged to undertake measures on protection of lands from water and wind erosion, mudflows, floods, bogging, secondary salinization, dehydration, soil-packing, pollution by radioactive and chemical substances, production and consumption wastes, biogenous pollution, as well as from other adverse effects; protection of agricultural lands and other lands from contamination by bacterial and parasitic and quarantine pests and plant diseases, overgrowing by weed plants, bushes and low forest stands, etc.; elimination of pollution impacts, including biogenous pollution and littering of lands; maintenance of the achieved melioration level; land reclamation, restoration of soil fertility, timely involvement of lands in the turnover; removal and conservation of a soil fertile layer for its subsequent use after land reclamation.

33. The Water Code of the Republic of Kazakhstan dated 07 July 2003 regulates the use and protection of water resources as well as the use of lands adjacent to water bodies (e.g. sanitary zones, water protection zones) and the so-called “water zones” including reservoirs, glaciers, bogs, water regulation infrastructure, etc. Irrigation and drainage infrastructure along with adjacent lands of local importance are regulated by oblast and rayon level administration. The Water Code introduces the concept of efficient water use that fails to be fully realized in by-laws.

34. The Forestry Code dated 08 July 2003 №477 regulates forest conservation, protection, reproduction and enhancement of ecological and resource capacity of forest areas and rational use of forestlands (including shrubs and saxaul areas that are good for grazing).

35. The Law on Grain dated 19 January 2001 №143 requires that landowners and users cultivate grain using practices that guarantee reproduction of agricultural lands fertility, and exclude or restrict practices with adverse impacts on the environment. Also, it provides for state support in financing scientific programs on soil conservation and improvement of soil fertility.

36. The Law "On State Regulation of the Agro-Industrial Complex and Rural Areas", Article 13-1 in particular, specifies the scope of agrochemical services for agricultural production including agrochemical examination of soil; monitoring of agricultural land fertility; maintenance of soil fertility levels; test of agrochemicals; creation and maintenance of a database on agrochemical condition of agricultural lands. Article 9 envisages state support through funding the cost of monitoring and assessment of the condition of irrigated land.

37. Along with the mentioned basic laws, separate issues related to land management are specified in the Budget and Tax Codes. The Budget Code includes budget planning of land specific programs, measures and activities (depending on the level of planning, i.e. national, oblast, district, and rural okrug), application and approval process, budget transfers, allocation of financial resources between oblast, district and rural okrug budgets. The Tax Code covers issues related to land tax rates and taxes of agricultural operations, tax privileges, tax reporting requirements, responsibilities of tax and local authorities on tax collection, and fees/ prosecution for non-compliance and non-payment.

38. According to the Law "On State Control and Supervision in the Republic of Kazakhstan", the use and protection of lands is under state control.

39. Responsibilities for dealing with violation of laws on land, water, forest, etc. are defined by the Criminal Code and the Code on Administrative Offences.

#### *1.3.2 Mechanisms for implementing laws relevant to SLM*

40. Specific mechanisms (e.g. rules, instructions) for implementation of the above-mentioned national laws are approved by the government and relevant authorized ministries, agencies and committees. By-laws establish mechanisms and the order of obtaining permissions for special environmental management (including land use), maintaining state accounting, monitoring and inventory (land, water, forest, fauna), the inter-farm land tenure and on-farm set up and management of areas and standards of use, etc. These are described below.

41. The Resolution of the Government of the Republic of Kazakhstan (dated 04 November 2011 № 1297) On the Approval of Rules on Rational Use of Agricultural Lands defines the 'rational use of agricultural lands' as "*land owners and land users assuring the maximum effect in achievement of land use goals during agricultural production that considers land protection and optimum interaction with natural factors in the ways avoiding considerable loss of soil fertility and aggravation of meliorative condition of lands*". This definition is based on the Soviet technical standard, (GOST 26640-85 "Lands: Terms and Definitions") that is still in use with minor changes related to insignificant decrease in soil fertility. According to the Rules, the rational use of agricultural lands includes maintenance and increase of productivity of major crops, agricultural production growth; crop rotation; maintenance and improvement of soil fertility and meliorative condition, prevention of overgrowth with weeds, wood and shrubby vegetation, as well as pollution with domestic and production wastes; the use of mineral and organic fertilizers, no burning of agricultural by-products on cultivated agricultural lands, pasture watering, observance of grazing load, etc. And the landowners and users are obliged to undertake these measures. Violation of these Rules constitutes a basis for land withdrawal. For instance, if the grain producer fails to apply mineral or organic fertilizers, or activities on seed farming, it is considered to be a violation, and land withdrawal or cancellation of a lease contract can follow in relation to the land user. Agricultural land owners and users are required to maintain the following documentation as proof for regulating authorities: an annual report on financial and production activities, flow charts on crop cultivation; books on fields history and crop rotation; books on economic accounting; standards of agricultural animals grazing load per pasture unit; documents confirming high-quality sowing and phytosanitary standard of seed qualities; documents on pesticides (toxic chemicals) and agrochemicals application; land management plans; passport of agricultural land plots. The Rules mandate agrochemical examination of soils once in seven years for dry land areas and once in five years for irrigated lands.

42. The Resolution of the Government of the Republic of Kazakhstan (dated 07 July 2007 № 581) On the Approval of Ecological Criteria for Land Assessment contains criteria for classifying soils and lands as degraded that include the following: aggravation of lands, physical (agricultural) degradation, agro depletion, water erosion, topsoil erosion, linear erosion, wind erosion, salinization, bogging.

43. The Resolution of the Government of the Republic of Kazakhstan (dated 05 August 2014 № 902) On the Approval of Rules on Agrochemical Examination of Soils defines the order of agrochemical examination of arable soils by a state institution in the field of agrochemical service of agricultural production (hereinafter, the state institution). It establishes the frequency for agrochemical examination: 7 years for dry land areas, 5 years for irrigated lands and farms applying chemical fertilizers; and 3 years for state high-quality sites, experimental farms. Graphic results of field examination are transferred from working field models to a digital cartographical basis and correlated with the results of agrochemical soil analyses. The government has allocated about USD 0.6 million for updating the inventory of lands in the Almaty, Akmola, East Kazakhstan, North Kazakhstan, Kostanai, and Kzyl Orda oblasts that are the target areas of this proposed UNDP-GEF project. By the time the current project is submitted for GEF approval, this exercise will be completed.

#### **1.4 Baseline programs for SLM**

44. There are a number of government programs in the agricultural and related sectors that include measures aimed at promoting SLM in agricultural land use. These programs constitute a baseline on which the proposed UNDP-GEF project can build to further reduce land degradation. These are described below.

45. The State Program on Forced Industrial-innovative Development of the Republic of Kazakhstan (2010 – 2014) is a multi-sectoral program that is focused on securing production of competitive agricultural products to meet the demand of the domestic market and start occupying leading positions in foreign markets. With this in mind, the program focuses on the growth of agricultural produce by means of product diversification, improvement of farming standards, introduction of modern moisture and water saving technologies, use of fertilizers, and the expansion of irrigated lands that are not in use.

46. The State Program for Development of Agro-Industrial Complex in the Republic of Kazakhstan over the period 2013-2020 – commonly referred to as Agribusiness 2020 – formulates a single, overarching policy objective, which is to create conditions to enhance the competitiveness of agribusiness. The Program provides direct state support to livestock breeding and crop production by means of technology upgrade and increase of the number and quality of livestock. It focuses on development of sheep, horse and camel breeding, provision of subsidies for production of livestock products, forage, etc. The Program plans for restoration of irrigated lands including reorganization of the irrigation network and improvement of the meliorative condition of lands. Concerning the rational use of water resources, compensation of 30% of costs for acquisition of drip and sprinkling equipment for irrigation is envisaged under the Program. On the use of distant pastures for livestock breeding, the Program includes activities for construction/ rehabilitation of watering places and compensation of up to 50% of cost. For crop cultivation, the Program aims at crop diversification, increase in agricultural product output through the transition to science-based moisture preserving technologies applied to crop cultivation, ensuring rational agricultural land management and involvement of new lands and lands not in use.

47. The Agribusiness 2020 Program highlights the two main reasons for the current imbalance between the use of land on the one hand, and the conservation of soil on the other, as follows: (i) low land taxes viewed as an impediment to the reallocation of agricultural lands to more efficient land users and this results in some agricultural lands remaining uncultivated; and (ii) implementation of ineffective activities (both cost and impact wise) for conservation of soil fertility and prevention of wind and water erosion by land users. To address these issues, the Program identifies the following measures: (a) monitoring of soil

fertility; (b) penalties and withdrawal of lands; (c) zoning of areas of the country with the development of recommendations for agricultural producers on specialization, as well as allocation of subsidies, grants and provision of other forms of state support taking into account crops and animal breeds that are optimal for the area; (d) improvement of the taxation system; and (e) reduction in the number of country farms<sup>28</sup>. In addition, the Program creates conditions for the development of organic agriculture by mandating the establishment of a certification system for organic production and produce. Although state support for organic production is mentioned in the text of the Program, it is not specified in the Program's plan and budget.

48. The State Program on Water Resources Management in Kazakhstan (approved by the Decree of the President of RK dated 04 April 2014 №786) specifies the principle of granting subsidies for the application of best available technologies and cost-effective practices. The state program intends to improve the tariff policy. In particular, new tariffs will be based on a number of principles common for all consumers: (i) full cost consideration across all sectors (operational costs, costs for service provision and capital expenses with the last not being applied for consumers in agriculture for whom the balance between payback of infrastructure and water availability to farmers should be provided); (ii) ensuring tariff availability for each sector (for instance, less than 10% of all production costs in agriculture, less than 1.5% of household income in utilities).

49. Regional (oblast and district) programs of rational use of land resources (as stipulated by the Land Code and Rules for Rational Use of Land Resources). Programs provide an overview of land types, land use practices and existing land quality and land use problems at oblast and district levels. And they largely focus on the increased use of mineral (chemical) fertilizers, and provision of specialized machinery to incentivize farmers.

## 1.5 Barriers to sustainable land management

50. Despite the baseline programs described above, land degradation on agricultural lands remains a persistent problem. If the current crop and livestock management processes continue, they will compromise all efforts at securing the continued flow of ecosystem goods and services from the critical productive landscapes of the steppe, arid and semi-arid zones covering Akmola, Kostanai, North and East Kazakhstan Oblasts (northern steppe zone: forest steppe, meadow steppe and dry steppe ecosystems), and Almaty and Kzyl Orda Oblasts (southern arid zone: desert and steppe semi-desert ecosystems).

51. The long-term solution for sustainable land management of agricultural systems in the steppe, semi-arid, and arid zones of Kazakhstan involves the development of a highly strategic landscape- and ecosystem-based approach to territorial planning that is backed by a well-designed, agro-environmental incentives scheme, and by an adequate policy and legal framework. The past years have seen encouraging progress in the creation of government programs supporting rational land use and management in the country, as outlined in the previous section. These programs serve as a foundation for the Project's planned interventions, and partly as co-financing. However, without GEF support, under the business-as-usual scenario, these programs will not be sufficient to enable a shift towards integrated territorial planning of agricultural systems in Kazakhstan, nor to launch agro-environmental incentive payments for sustainable land use. The main barriers to the above described long-term solution to SLM in agricultural systems of the steppe, semi-arid and arid zones of Kazakhstan are described below.

### 1.5.1 Weaknesses in territorial planning system

52. As has been discussed in the section above on the [legislative context for sustainable land management](#), significant progress has been made in the past decade with respect to overall policy and legislation. Systemic barriers relating to practices and procedures, however, continue to exist at the local,

<sup>28</sup> Multiple land users constitute a less effective unit for regulation and monitoring by the government. It is easier to regulate and control larger units of farmers, thus increasing effectiveness of government programs.

regional and national levels that hamper the development of integrated land use planning and management. Specific barriers to be addressed by this project are described below.

53. The Land Management Committee of the Ministry of National Economy coordinates development and implementation of overarching land use policies in the country. Land-use planning at regional and local levels (i.e., at the oblast, rayon and rural okrug levels<sup>29</sup>) is in the hands of local executive authorities following the ongoing process of decentralization in Kazakhstan. In the context of this project, it is the land relations and agricultural units of the oblast level government or akimat that are key stakeholders. The land relations unit develops an oblast level program and a scheme for rational use of land resources as stipulated by the Land Code, which constitutes land use planning at the oblast level. It also implements land inventory, land allocation, licensing, zoning, approval of land protection measures of any infrastructure or transport project, etc. The agricultural unit deals with food security issues within a particular oblast, and the effective and efficient functioning of its agricultural systems. The same is true of the administrative structures at the rayon and rural okrug levels.

54. The current process of land use planning represents a rather formal process that fails to take a comprehensive approach to planning with limited interactions among land-users and stakeholders during planning and implementation of land-use plans. The land use planning exercise usually takes a top-down approach largely leaving needs and priorities on the ground unaddressed. No precedents have yet been set on rayon-level participatory land use planning. Also, in Kazakhstan, territorial planning is performed for tax purposes solely; the current planning system does not use an integrated approach that factors in the needs of ecosystems for sustaining their services in the long run. No assessment of the current state of soil, vegetation, wildlife is taken into account in the land use planning process, and no ecozone mapping is done on that basis. A coordination mechanism that can work between different levels of government bodies (national, regional and local) when it comes to land use planning is missing. In general, departments in city and oblast akimats and in Ministries operate and act within their specific areas. Coordination between local representatives of environmental regulation authorities (now under the Ministry of Energy), the Land Management Committee of the Ministry of National Economy, the Ministry of Agriculture, and relevant departments of akimats (oblast or rayon) remains sub-optimal.

55. Oblast and rayon level akimats are now responsible for permitting or leasing grazing or agricultural lands, with only limited interventions on the part of regional land inspections, as the increase of agricultural output is considered to be among the highest national priorities. Thus, in practice, little attention is paid to monitoring and control over the ecological state of lands in this process.

56. Land conversion often takes place illegally. Without proper monitoring and enforcement, the offenders are not penalized, regulatory processes are undermined, and land continues to degrade. Effective monitoring and enforcement of the integrated territorial plans will require closer dialogue between staff from various government institutions involved in land use planning, providing permits and environmental inspections.

57. The project will address this barrier by demonstrating an integrated and participatory approach to territorial land use planning, techniques and schemes for increasing the effectiveness of land planning and management in pilot districts of the target steppe and desert ecosystems. The landscape level planning exercise will go hand-in-hand with functional reviews of roles and responsibilities of the government institutions involved in territorial planning, monitoring and enforcement to avoid duplication and clarify roles with regard to integrated land use planning. Finally, the project will hold a series of capacity building workshops to train target groups at national, regional and district (rayon) levels on comprehensive land use planning, effective coordination of relevant stakeholders and monitoring and enforcement of ILUPs (Outcome 1, Output 1.1).

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<sup>29</sup> Kazakhstan is divided into 14 regions or oblasts. Regions are further subdivided into districts or rayons with their being a total of 160 rayons. Rayons can be urban or rural. Rural rayons are further subdivided into rural okrugs with their being a total of 2,453 rural okrugs in Kazakhstan

### 1.5.2 *Inadequate policy and legal framework to support a transformation to SLM*

58. As the experience of developed countries in the areas of environmental enforcement has demonstrated (e.g. wetland banking in the United States, agro-environmental schemes in the European Union), unless the requirement to account for natural resource values and functions in territorial planning and financial flows is fixed in policies and regulations, and land users are made to comply, there is unlikely to be a change from the baseline situation to integrated land use. In order to make a shift to environmentally-friendly land use and management, a number of changes in the current land use policy and legal framework are needed.

59. The 2003 Land Code was a big step towards sustainable land use and management. However, it did not succeed in setting up a good system for regulating rangelands and pastures<sup>30</sup>, which constitute close to 70% of the country's territory. The Code fails to (i) identify a specific government entity that oversees and monitors resource use, (ii) determine rangeland and pasture tenure models to be used, (iii) assign rangeland ownership or user rights, and (iv) define the extent of those rights.<sup>31</sup> Also, some governing rules for rangelands date back to the Soviet era<sup>32</sup> that no longer provide enough incentive to local land users for grazing livestock at distant pastures. Moreover, the existing grazing permit system requires the renewal of permits each year (even though technically the herder is granted permission for 10-20 years), and renewal is not guaranteed so the herder lacks secure property rights. This creates perverse incentives among the herders to maximize short-term benefits, which leads to overgrazing. Grazing quotas are established in compliance with specific decisions of the Government of Kazakhstan, but there is no mechanism to punish local officials if they fail to comply with the regulations. Monitoring and enforcement requirements need to be clearly specified in the legislation. The Land Code mentions penalties for 'non-rational use of land', resulting in withdrawal of land and deprivation of user rights. In practice, this provision is observed for crop, rice and vegetable production, but not for rangelands or pastures. And it largely targets land users not officials. While on paper the number of grazing permits does not exceed the legal limit, in practice the number of animals grazing on the land far exceeds the permitted number.

60. Under current legislation, the issue of ownership of pasturelands and hay fields around settlements and rural populated areas has not been resolved accurately and unambiguously. According to point 1 of Article 26 of the Land Code, pasturelands and hay fields in and around settlements and rural populated areas are specified as objects of state ownership along with other lands that cannot be transferred to private ownership. At the same time, these lands are not included in the list of land plots not subject to privatization specified by point 2 of Article 26 of the Land Code. Thus, effectively, even though under state ownership, pastures and hayfields can be transferred to private ownership based on a decision by local akimats whose decision-making might be subjective.

61. At present, SLM is not specified in the legislative base of Kazakhstan. Instead, the notion of rational use of land resources is widely used. As described above, non-observance of and non-compliance with this rational use principle may result in land withdrawal. Despite the importance of observing the rational use principle by land owners and users as stated in the Land Code, the by-laws regulating land use issues fail to include the definition of the rational use and its criteria. Only the Rules on Rational Land Use approved by the Government includes the definition of rational land use, but the Rules base it on the Soviet technical standard (GOST 26640-85 "Lands: Terms and Definitions") that date back to 1985.

<sup>30</sup> Rangelands are those lands on which the native vegetation is predominantly grasses, grass-like plants, or shrubs suitable for grazing or browsing use. Rangelands include natural grassland, many wetlands, some deserts, and shrub communities. Pastures are those lands that are primarily used for the production of adapted, domesticated forage plants for livestock.

<sup>31</sup> Schillhorn van Veen et al. 2005 (quoted earlier).

<sup>32</sup> For instance, in the Former Soviet Union, there were transfers of animal feed between the republics. Thus, the problem of extreme fodder deficit in winter did not occur, whereas now this deficit leads to overgrazing of winter pasture. In addition, extensive livestock Kolhoz/Sovhoz provided a support system for shepherds when in remote mountains or deserts (i.e. emergency services in case of injury, provision of good equipment, transport, rest periods, etc.). None of these support systems exist anymore. As a result there tends to be over-grazing in accessible pastures and under-grazing in more remote areas.

Unlike SLM, the rational use principle excludes social dimensions of land use and ecosystem approach to land use planning. This becomes particularly important when the provisions of the Land Code are interpreted at the oblast and rayon levels and relevant orders are issued. With no guidance and definition at hand that is relevant to the present context, regional and local authorities tend to narrow down this principle to increased agricultural output by means of intensive use of chemicals (fertilizers and herbicides).

62. Also, the Rules on Rational Land Use include a list of obligatory actions to be undertaken by agricultural producers, including application of mineral fertilizers, and the refusal to use mineral fertilizers to improve soil fertility may constitute a violation. Despite the fact that the state programs repeatedly refer to non-application of organic fertilizers as one of the main causes of soil fertility losses, the rules on subsidizing fertilizer costs (under the Rules on Rational Land Use) target only mineral fertilizers. The MOA's master plan on rational use of lands does the same: all activities, except for the agrochemical soil analysis, focus on increased application of fertilizers and herbicides as a rational land use measure. The current situation requires substantial revision of government policies and regulations in this area (e.g., Rules on Rational Land Use, Land Code and relevant by-laws) by taking into account scientific and practical achievements in development of organic fertilizers.

63. The Agribusiness 2020 Program envisages the development of legislation for organic agricultural production. At present, a draft law "On Organic Production" is being developed. The development is at an agreement stage. The draft law does not meet international standards and recommendations, however, and requires considerable revision with involvement of international experts.

64. In regard to economic incentives, the Land Code lists measures of economic motivation but fails to refer to budget planning and tax legislation for implementation of such measures. Further, in regulatory acts (or by-laws) approved by central executive bodies, the notion of "economic incentives" is substituted by the notion of "economic deterrents". As a result of this substitution, measures such as penalties, withdrawal of lands and tax increase in the Agribusiness 2020 Program are regarded as economic incentives for the rational use of land resources.

65. The project will address this barrier through Outputs 1.1. & 1.3 of Outcome 1 and Outputs 2.1 & 2.2 of Outcome 2. Mainly, the project will work with the government on devising/ revising policies that target land use planning, monitoring & enforcement and a system of economic incentives for promotion of SLM practices.

### *1.5.3 Perverse financial incentives in agriculture*

66. According to the MOA, subsidies to the agricultural sector over the period 2009-2013 constituted 30% of total government funding for agricultural development<sup>33</sup>. In 2011-2012, farmers in Kazakhstan saw some of the largest increases in state support as the government focused on self-sufficiency policies to boost agricultural production. The share of farmers' income derived from subsidies rose from 11 to 15 percent, according to the OECD annual Agricultural Policy Monitoring and Evaluation report in 2013.<sup>34</sup>

67. The Agribusiness 2020 program offers a range of direct subsidies. Among the main payments for crop producers are subsidies for mineral fertilizers and chemicals, elite seeds, subsidies for delivery of irrigation water, and maintenance for permanent plantations. Livestock producers receive subsidies to purchase feed and pedigree livestock. In addition to direct payments, prices of diesel for agricultural producers are regulated during the sowing and harvesting seasons.

68. Among direct payments, per hectare payments is the largest single policy measure. These payments are provided for 'priority crops' approved by the government, with the exact list of such crops determined

<sup>33</sup> State funding for agricultural development during 2009-2013 totaled 1,089,495 billion KZT or USD 7,020 billion.

<sup>34</sup> OECD. 2013. Kazakhstan Country Chapter in Agricultural Policy Monitoring and Evaluation 2013: OECD Countries and Emerging Economies. OECD Publishing.

for each region by local authorities. One reason for the introduction of per hectare payments was to ensure that the support is actually going to priority crops—in this case, plantings serve as straightforward evidence. One of the priority crops being subsidized is the alternative, highly profitable, oil-bearing sunflower crop. Although well-intentioned, the subsidy for this crop has been of questionable value both in terms of environmental considerations and realizing agricultural goals. A subsidy rate of 11,000 KZT (or about USD 60) per ha for growing sunflowers (vs. 25,000 KZT or about USD 135 per ha for rice production, which is far more labor and cost intensive) was too generous on the part of the government, thus creating huge demand for the subsidy among farmers. In North Kazakhstan oblast, for example, subsidies for oil-bearing crops led in some cases to a situation where one monoculture (grain) was substituted with another (sunflower), and the latter has much more adverse impact on soil fertility. Also, some farmers, in an attempt to access the generous sunflower subsidy, resorted to sowing 5-10 rows of sunflower along the borders of a plot to provide evidence for inspectors but sowed, for example, wheat in remaining parts.

69. Another reason for the introduction of per hectare payments was the concern that the current crop growing practices lead to soil depletion and water over-use. The payment rates are differentiated by crops, and further vary for some crops depending on the cultivation technology used. Producers that use drip irrigation<sup>35</sup> and, in the case of grain, comply with “scientific” requirements are supposed to be eligible for higher payment rates. As such, per hectare payments were supposed to stimulate better cultivation practices and promote crop diversification and rotation. But this policy has several shortcomings. Firstly, the administration of per hectare payments<sup>36</sup> is a complex process involving substantial delays in the transfer of payments, meaning that producers make production decisions largely without factoring in the availability of payment at the time of planting. Secondly, responsiveness of farmers to low subsidy rates for crop production (the subsidy for oil bearing crops being an exception) is poor, failing to incentivize them to switch to less extensive and more environmentally friendly cultivation practices. For grain production, for example, a subsidy rate should vary from about USD 190 to USD 250<sup>37</sup> and higher to make a grain producer start thinking of moving away from conventional cultivation practices. Thirdly, the design of this policy is faulty on fundamental grounds, as it lacks direct mechanisms for encouraging crop rotation systems. In the European Union, or Germany in particular, a farmer receives a subsidy of about 300 Euros per ha only if a crop rotation system is observed, and not for simply switching from one crop to another. The MOA’s own assessment in 2014 noted that the program did not yield the expected results in terms of crop diversification and rotation. Fourthly, the government payments to farmers who produce a designated crop are decoupled from production—which means that farmers can produce as much or as little as they want and still receive this subsidy. The policy is thus unsuccessful in increasing ‘yield per ha’ production.

70. Similar to crop production, generous agricultural subsidies in animal husbandry fail to contribute to improved ecological status of lands, and largely support expansion of livestock numbers. The subsidies extend almost no support to pasture or hayfield management, or other sustainable land-use practices.<sup>38</sup> At present, livestock subsidies mostly target large-scale farms either directly or by specifying conditions that only large farm-holders can meet. Yet, large-scale farms account for only 18% of the total number of agricultural producers while small and medium sized farm-holders represent 82%. Therefore, the subsidies fail to properly reach over 82% of livestock owners.<sup>39</sup> Community-based family farms that usually have a small number of cattle, in many cases less than 100 heads, are not eligible for subsidies. Even medium size farms are at a disadvantage: a farm with between 100 and 300 cattle (mainly sheep and goats) receives USD 0.06 per kg of milk, and those with over 600 heads of cattle receive a subsidy of

<sup>35</sup> The program envisages compensation for drip irrigation equipment up to 30% of their cost.

<sup>36</sup> This is true for all subsidies, and not only for per hectare payments.

<sup>37</sup> Lowest and highest price benchmarks for wheat per ton registered in Kazakhstan in 2014.

<sup>38</sup> Based on a review carried out by UNDP projects on sustainable land management

<sup>39</sup> Schillhorn van Veen, et al. 2005 (quoted earlier)

USD 0.16. This farmer support scheme sends perverse signals, motivating farmers to simply increase the number of cattle per farm to be eligible for higher subsidies.

71. The project will address this barrier in Outputs 1.2 and 1.3 of Outcome 1 through piloting separate agro-environmental incentive schemes to be operated by oblast and district administrations by focusing on pilot districts for integrated land use planning and demonstration projects in Kostanai, Akmola, Almaty, Kzyl Orda and East Kazakhstan Oblasts. The project will develop recommendations for the agro-environmental measures and will use results and lessons learned of piloted agro-environmental subsidies at demonstration sites.

#### *1.5.4 Inadequate capacity and awareness levels for SLM implementation and advocacy*

72. **Agro-environmental incentives:** Kazakhstan has declared a transformation to a “green economy”, but in the area of agro-environmental incentives for SLM – i.e., incentives that can encourage farmers to shift to sustainable land management practices – the country has neither the know-how nor professionals with relevant SLM and public finance knowledge and skills for the design and application of a scheme of agro-environmental incentives. Laws such as the Land, Water, and Environmental Codes have provisions on economic incentives but not on agro-environmental incentives per se. In addition to this lack of capacity, there is the issue of lack of broad-based political support. A strong lobby of large-scale agricultural producers contributes to an unwillingness to review the potential of any “green” public finance schemes, as they fear the possibility of funding being diverted to small and medium-size farming enterprises, or to new emerging practices in crop and livestock production. This bias is evident in the case of organic agriculture, which is in its nascent stages in the country. On the one hand, the government acknowledges environmental and economic benefits of well-developed organic agriculture by reviewing the experience of western countries. On the other, subsidy policies exclude organic agriculture thus sending a signal that devalues its importance in the country’s economic development and reveals the preferential treatment of conventional agricultural production. Compared with the industrial sector which is more responsive to environmentally-friendly policies, the agricultural sector remains more conventional. In addition, with multiple and largely unorganized land users, this sector is difficult to regulate. In terms of green policy-making, the agricultural sector represents ‘virgin territory’ for the government. The need for building awareness that economic incentives can be an effective mechanism for encouraging uptake of agro-environmental measures and advocating for change is tremendous.

73. **Existing agricultural subsidies:** The [perverse effect of financial incentives in agriculture](#), mentioned in the discussion above, is also related to capacity weaknesses. Crop and livestock subsidy programs have faulty designs with heavy administration costs and inadequate enforcement. First, this is indicative of the lack of relevant economic and financial knowledge and skills among government officials, mainly in the MOA and its affiliates, to design subsidy schemes that would send correct signals to target agricultural producers thus making them adopt and practice SLM behavior. Second, enforcement capacities of local land-use and environmental inspectors remain inadequate to monitor the designated use of subsidies and check transgressions by farmers in a timely fashion.

74. **Land use planning and enforcement:** The poor design and enforcement of land use planning also stem from inadequate institutional and individual capacities at oblast and rayon levels that still need to catch up with the pace of decentralization in the country. The Land Code in Kazakhstan envisages soil and climatic zoning at the rayon, oblast, and national levels that designates land use regimes for each area. Yet, implementation of this requirement lacks relevant and adequate capacities at oblast and rayon levels. First, while the Code includes this provision, it provides no guidance on how the process of zoning should be organized or the steps to be followed, which would be of help to people working on the ground. Second, agricultural units in the akimats have limited staff (at the rayon level an agricultural unit consists of only one staff member) to properly organize a consultation process with relevant stakeholders and limited funding to outsource, for example, an analysis of current status and use of lands in a particular rayon before planning. The current zoning is performed solely for the purpose of meeting this requirement

in the Land Code on paper, without proper consideration of environmental aspects of land use and largely with no use for SLM. Under the current territorial planning practice, allocation of lands for economic users and the regimes of use do not take into account the ecosystem values and carrying capacity. Decisions on land allocation and land use regimes take into account only immediate health risks, while the long term consequences of land erosion, loss of soil productivity, are left outside the territorial planning process due to lack of capacities and knowledge as to how to fully integrate them.

75. Insufficient capacity for promoting organic agriculture: Lack of knowledge in marketing organic agriculture represents a challenge primarily for the emerging Organic Agriculture Movement in Kazakhstan. Public procurement via the State food purchase program does not differentiate between organic and non-organic produce thus offering the same price, even though the former represents a form of sustainable land management and agricultural production. Thus organic producers need to promote their produce in conventional markets. However, the culture of consumption of organic products is at a nascent stage in Kazakhstan, predominantly in large cities like Almaty and Astana where kiosks and shops of organic food and products are being opened. As such, domestic demand is rather limited. So, in the meantime, organic producers focus on foreign markets but only raw products, and not value-added ones, are being supplied to foreign markets, which significantly reduces potential profits for organic producers and value of organic agriculture for the national economy. During PPG consultations, several organic producers noted the need for support in marketing organic agriculture, its products, and its benefits to the general public and the government to speed up development of organic farming in the country.

76. Weak existing capacity building systems for agricultural producers: In Kazakhstan, there is a system of knowledge sharing and advance training (enhancement of skills and capabilities) in land management with several actors involved (please refer to Annex 1 for details). JSC KazAgroInnovation, a subdivision of the MOA, established in 2009, is the leader and exercises a monopoly in the provision of training. Also, there is a district network of information and consulting centres of the JSC KazAgroMarketing established in 2003 that provides agricultural producers with information on state support measures, prices, as well as consultation and marketing services and organize training workshops. Other important players operating in the proposed project area (i.e. Akmola, Almaty, Kostanai, North and East Kazakhstan, and Kzyl Orda oblasts) include the Kazakh National University of Agriculture high school for farmers, non-governmental foundation “The Farmer of Kazakhstan”, Kazakh Federation of Organic Agriculture Movements, projects of international organizations and business corporations (e.g., Programme “Development of rural areas” initiated in Almaty oblast by LTD “Philip Morris Kazakhstan”).

77. Agricultural extension services, however, are characterized by a segregation of the involved organizations’ activities. Furthermore, there is a lack of standards and a common platform for sharing information and experience. The established system – which is implemented by 11 extension centers under scientific research institutions (SRI) as branches of the JSC KazAgroInnovation, and regional offices and 160 district-level rural information and consulting centers as branches of JSC KazAgroMarketing – is limited by the capacity of the institutions involved in this process. Due to the lack of the knowledge (know-how and specialists) of approaches and technologies on SLM in this existing extension system of JSC KazAgroInnovation, experts from overseas non-governmental organizations are involved in training farmers. However, such cooperation is an exception, rather than general practice. As a result, most farmers fail to consider methods that raise productivity without disrupting the ecological integrity or the ecological importance of pastures and forests in underground water recharge, erosion control and flood mitigation. Local agricultural crop producers and community-based organizations such as joint pasture user or forest user associations do exist but are not conversant in sustainable resource management. Livestock grazers receive only limited extension support or training in sustainable grazing practices.

78. As reported by extension centers of JSC KazAgroInnovation, in recent years, low participation rates or participation of non-targeted audiences has been observed. Reasons include, but are not limited to, poor timing of training that conflicts with agricultural production processes such that targeted farmers cannot participate; poor awareness among farmers about upcoming training; mismatch of thematic topics of proposed training with interests of farmers on the ground<sup>40</sup>; lack of funding to invite farmers and specialists from distant areas; non-existence of mobile training services for farmers. During PPG consultations, in particular, it has been noted that the staff of agricultural units of oblast and rayon level akimats were not engaged in sharing information on training and did not contribute to design of training modules specific to their regions/ localities.

79. College education in the agricultural sector: As stated before, the professional capacities and knowledge of oblast and rayon level akimats and agricultural services in design and implementation of SLM approaches in crop and livestock production, and landscape level planning in general, are relatively low. Agriculture specialists in Kazakhstan are being trained in two agriculture universities (the Kazakh National University of Agriculture, and the S. Seifullin Kazakh Agrotechnical University), state universities that have agriculture departments, and agricultural and technical colleges. At the moment, undergraduate and graduate level institutions are producing limited number of professionals who can be employed in the agricultural sector. The unpopularity of agricultural professions among prospective students (particularly college-level qualifications) largely stems from the agricultural sector being considered as a low-prestige employer. This contributes to low enrolment rates and the discontinuation of important courses. Given the country's on-going efforts to accede to the World Trade Organization and being a member of the Eurasian Customs Union, many experts claim that the agricultural sector is already lacking, and will be in need of specialists on land resources monitoring, distant livestock breeding, forage production, agricultural mechanization and agricultural marketing.

80. The project will address this need in capacity building and awareness-raising through capacity building and awareness raising of agricultural land users and general public; enhancing institutional effectiveness and staff capacities of akimats, research institutions and training agents; and improving quality of higher and college training on SLM issues (Output 1.4 of Outcome 1).

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<sup>40</sup> For example, several grain producers in North Kazakhstan oblast expressed a strong interest in learning more about agricultural marketing but this topic was never offered in the training program for farmers.

## 2. PROJECT DESIGN

### 2.1 Rationale and summary of GEF Alternative

81. The Government of Kazakhstan is requesting GEF incremental assistance to address the situation described above by focusing on sustainable land management in critical, productive, steppe, arid and semi-arid landscapes found in Akmola, Kostanai, North and East Kazakhstan Oblasts (i.e., the northern steppe zone: forest steppe, meadow steppe and dry steppe ecosystems), and Almaty and Kzyl Orda Oblasts (i.e., the southern arid zone: desert and steppe semi-desert ecosystems) of the country. Support is needed to change existing patterns of land use and improve land conditions by strengthening agricultural financial mechanisms and the current land-use planning system, which are the basic financial and administrative drivers of land use, thus addressing land degradation problems in the long term.

82. The project will build upon existing national subsidy programs in the agricultural sector, as well as on the national environmental development approach by facilitating integrated land use planning, with the emphasis being on decentralization and bottom-up planning, as opposed to the existing highly centralized, top-down system. This will include the wider application of a new financial mechanism in pasture and productive landscape management. Building upon the past experience of GEF funded projects' efforts, the project will create a more conducive policy and legal framework for establishment of agro-environmental incentives for sustainable and better integrated pasture and land use planning and management, and build national and local capacity for practical implementation of such planning in the field. Existing best practices and approaches will be replicated at a wider scale within selected representative oblasts.

83. The alternative scenario funded by GEF and co-financing resources is expected to result in key modifications to the baseline scenario that will generate global environmental benefits primarily in terms of sustainable land management, but also co-benefits in biodiversity conservation. A comparison of the baseline scenario with the GEF Alternative scenario and associated global environmental benefits are presented in the table below.

**Table 1. Incremental cost reasoning and global environmental benefits**

State of ecosystems under baseline	Summary of GEF scenario	Increment/ global benefits
<b>Land Use Planning and Regulation</b>		
Land use planning does not account for ecosystem values, leading to ecosystem degradation	Integration of SLM principles into district territorial planning through Integrated Land Use Plans (ILUPs), compliance monitoring and enforcement through: <ul style="list-style-type: none"> <li>- Assessment of pastures and crop land capacity and incorporation of this as active components in ILUPs</li> <li>- Cross-sectoral mechanism at local level to oversee the ILUP process</li> <li>- Strengthening of local enforcement capacities</li> </ul> SLM best practices are applied across sectors and integrated management approaches are applied across different land use sectors	Competitive pressures between land uses in steppe and desert landscapes reduced in 750,000 ha of productive lands, in turn leading to: <ul style="list-style-type: none"> <li>Decrease in grazing pressure and improved condition of steppe and arid ecosystems</li> <li>Well-functioning ecosystem services (such as forage productivity at steppe pastures)</li> <li>Improved productivity (see estimates for each pilot site in <a href="#">Annex on demonstration projects</a>)</li> </ul>
<b>Financing of agricultural land use</b>		
Traditional subsidies in agriculture prioritize productivity and take no heed of ecosystem carrying capacity	Agro-environmental incentive scheme launched <p>Strengths Weaknesses Opportunities Threats</p> analysis of existing subsidy options under Agribusiness 2020 program to generate recommendations on how existing subsidies can be amended to support	Agribusiness 2020 Program reorients funding from traditional to 'green' agriculture. <p>SLM financing increased by 20 percent</p> Adverse impact of large scale producers on land is reduced (i.e. reduced erosion, greater crop diversification)

State of ecosystems under baseline	Summary of GEF scenario	Increment/ global benefits																								
	<p>agricultural producers in switching to more sustainable and environmentally friendly land use practices. This will constitute a basis for policy dialogue with the government on gradual revision of existing agricultural subsidies. Also, the project's capacity building on how to design agro-environmental subsidies will be instrumental in improving skills and understanding of win-win incentive instruments</p> <p>Agro-environmental incentives are widely accessible to local land users</p> <p>Rayon and oblast akimats undertake systematic and integrated long term financial planning for agricultural land use</p>	<p>Increased incidence of SLM approaches applied by small-scale holders leading to soil and vegetation quality improvements</p>																								
<b>Land condition and productivity</b>																										
<p>Low productivity of fodder crops in the Southern zone. Baseline figures:</p> <table border="1"> <thead> <tr> <th>Region</th> <th>Oats</th> <th>Barley</th> <th>Other*</th> </tr> </thead> <tbody> <tr> <td></td> <td colspan="3">t/ ha</td> </tr> <tr> <td>Akmola</td> <td>1.5</td> <td>1.5</td> <td rowspan="5">1.5</td> </tr> <tr> <td>NKz.</td> <td>1.8</td> <td>1.5</td> </tr> <tr> <td>Kostanai</td> <td>1.1</td> <td>1.3</td> </tr> <tr> <td>Almaty</td> <td>1.6</td> <td>1.8</td> </tr> <tr> <td>Kz. Orda</td> <td>-</td> <td>0.8</td> </tr> </tbody> </table> <p>* Wheat Grass, Alfalfa, Common Sainfoin</p> <p>Low productivity of cereal crops in the Northern zone: 1.4-1.8 t/ ha (wheat)</p> <p>Soil erosion of barren degraded lands</p> <p>Excessive use of pesticides and fertilizers in irrigation crop management</p> <p>High pressure on the productive landscapes due to introduction of monoculture</p> <p>Overgrazing—exceeding carrying capacity by eight times resulting in increased erosion</p> <p>Increase in less palatable species</p>	Region	Oats	Barley	Other*		t/ ha			Akmola	1.5	1.5	1.5	NKz.	1.8	1.5	Kostanai	1.1	1.3	Almaty	1.6	1.8	Kz. Orda	-	0.8	<p>Crop and soil conservation measures, i.e. crop rotation systems and green fallow, efficient use of irrigated water in rice production, restoration of abandoned arable lands</p> <p>Improved pasture management: expansion of forage areas, improvement of cultivated pastures through re-seeding, and increase the mobility of livestock to counterbalance livestock grazing pressures on rangelands in steppe and desert ecosystems</p>	<p>Increase in productivity of fodder and cereal crops (see estimates for each pilot site in <a href="#">Annex on demonstration projects</a>)</p> <p>Improved condition of land and natural resources on 145,503 ha in six oblasts that results in reduced soil erosion, halting/ reversal of land degradation processes and continued provision of ecosystem services</p>
Region	Oats	Barley	Other*																							
	t/ ha																									
Akmola	1.5	1.5	1.5																							
NKz.	1.8	1.5																								
Kostanai	1.1	1.3																								
Almaty	1.6	1.8																								
Kz. Orda	-	0.8																								

## 2.2 Fit with GEF focal area strategy

84. The Project is fully consistent with the GEF-5 Land Degradation Focal Area Strategy and addresses objective 3 of this strategy namely, “LD-3: Reducing pressures on natural resources from competing land uses in the wider landscape”, by promoting integrated territorial planning at the rayon level, and engineering a shift from unsustainable land use practices to sustainable land management. The project introduces the concept of Integrated Land Use Planning and implements investments to demonstrate its viability in six oblasts. The indirect area of influence of the project is the entire agricultural landscape of the country – pasture and other agricultural lands – which totals 222.6 million ha. The project can potentially be scaled up to this area, which is the area with highest sensitivity to land degradation threats under impending climate change. These activities are in conformity with Outputs 3.1 and 3.2 of the GEF LD-3 strategic objective. For the first time in Kazakhstan and in post-Soviet regions, the project introduces the concept of agro-environmental incentive payments as an innovative funding mechanism supporting SLM measures. Through these LD-focused activities, the project helps to prevent soil erosion, loss of productivity and other ecosystem services in the steppe zone in Kazakhstan, contributing to carbon sequestration and avoidance of emissions in/ from the soil layer.

### 2.3 Project objective, outcomes and outputs

85. The project objective is to transform land use practices in steppe and semi-arid zones of Kazakhstan to ensure ecological integrity, food security and sustainable livelihoods. This objective will be realized through two components/ outcomes that are further described below.

#### **Outcome 1: Investment in integrated territorial planning and start-up of agro-environmental incentives**

86. Under Outcome 1, the project will demonstrate the overall approach, techniques and schemes for increasing the effectiveness of land use planning and management in the steppe, arid and semi-arid zones of Kazakhstan by enhancing the conservation-friendliness and sustainability of productive agricultural landscapes. The outcome will combine the following such that the whole is greater than the sum of the parts: improved territorial landscape-level planning to maintain ecosystem services and mitigate land degradation enabled by monitoring and enforcement capacities; demonstration of SLM practices in six target oblasts in crop cultivation (grain and forage crops), seasonal and distant grazing management, and water management in line with area specific ILUPs and enabled by agro-environmental incentives; strengthened agricultural extension services and capacities of land users on sustainable farming and livestock raising practices. Implementing integrated land use planning and SLM practices will not only improve land management and mitigate land degradation within the demonstration sites but will have wider implications by reducing threats to depletion of valuable land resources and enhancing productivity of agricultural systems while sustaining landscape-level ecological processes.

87. The expected total landscape area to be brought under sustainable productive use through territorial planning is about 750,000 hectares<sup>41</sup>. Demonstration of sustainable land use and management will occur over an area of 145,503 ha in six oblasts—Akmola, Almaty, East Kazakhstan, Kostanai, Kzyl Orda and North Kazakhstan. These oblasts are representative of target steppe and desert ecosystems (forest steppe, meadow steppe, dry steppe, desert, and steppe semi-desert ecosystems) as well as target agricultural systems (crop cultivation and rangeland). These six oblasts represent a typical socio-economic and land use context in the country. Additionally, UNDP, GIZ, WB and USAID have ongoing relevant initiatives or past experience in these six oblasts. Therefore, there exists a pool of on-the-ground knowledge, capacity and working relationships with local authorities and stakeholders that will facilitate project implementation. In support of a matrix of sustainable land uses, the GEF will provide incremental support for the development and implementation of tools and practices for landscape-level sustainable planning and management, and agro-environmental financing in target regions.

*Output 1.1: Integrated Land Use Plans (ILUPs) employ the landscape management approach to inform decision-making, restore and conserve ecological functions and processes of agricultural landscapes in pilot districts of the target steppe and desert ecosystems.*

88. The project will build on the ongoing trend in Kazakhstan of gradual transfer of planning and development of local policies and plans from the center to oblast and district authorities. The current process of land use planning represents a rather formal process that fails to take a comprehensive approach to planning and involves limited interactions among land-users and stakeholders during planning and implementation of land-use plans. The land use planning exercise usually takes a top-down approach largely leaving needs and priorities on the ground unaddressed. No precedents have yet been set on rayon-level participatory land use planning. Also, in Kazakhstan, territorial planning is performed for tax purposes solely; the current planning system does not use an integrated approach that factors in the

<sup>41</sup> <sup>41</sup> This is the combined area of the five pilot rural okrugs selected as pilots for integrated land use planning in Akkol district of Akmola oblast (northern & southern steppe), Enbekshikazakh district of Almaty oblast (mountain steppe, semi-desert), Aygoz district of East Kazakhstan oblast (semi-desert, northern & southern desert, southern steppe), Fedorovskiy district of Kostanai oblast (forest steppe), and Zhalygashsky district of Kzyl Orda oblast (southern & northern desert).

needs of ecosystems for sustaining their services in the long run. No assessment of the current state of soil, vegetation, wildlife is taken into account in the land use planning process.

89. The project will work with the oblast and rayon level offices of the MOA, Land Management Committee of the Ministry of National Economy, environmental regulation and water authorities, akimats of selected rayons and rural okrugs in the target oblasts (mainly land relations and agriculture units), as well as with individual farmers and association of farmers and agricultural enterprises to devise planning frameworks that focus on the economic potentials of safeguarding and maintaining ecosystem services of agricultural landscapes through SLM practices. The project will use the experience of UNDP-GEF projects on wetlands and steppe conservation and that of GIZ in implementing this output.

90. The land use planning exercise will build on the current process of development of a scheme for rational use of land resources as stipulated by the Land Code, which constitutes the existing land use planning matrix. Target oblasts have already completed the inventory of all agricultural lands that will form the basis for the project's activities under this output. The following steps are envisaged by the project in piloting integrated land use planning and developing the ILUPs:

- (i) Setting up rayon-level, inter-sectoral committees consisting of land management, agricultural and environmental units of oblast, district and rural okrug akimats, relevant government organizations and institutions, and associations or unions of farmers. The committee will represent a platform to facilitate and engage in stakeholder consultations during the pilot process of integrated land use planning.
- (ii) Identification of functional zones in pilot rural okrugs taking into consideration geo-climatic conditions, natural ecosystem (ecosystems, habitats, plant communities, species), natural and anthropogenic processes (areas vulnerable to/ impacted by degradation, water and wind erosion, loss of humus, etc.), and socio-economic data (population, settlements, current economic activities and agricultural land use practices, etc.)<sup>42</sup>.
- (iii) Identification and spatial assignment of appropriate land use types and practices using participatory planning methods that consider the needs of stakeholders, local knowledge and development priorities of pilot rural okrugs.
- (iv) Matching identified functional zones with economic priorities of each rural okrug to determine appropriate economic activities and scale for each land unit in order to retain ecosystem integrity and ensure maximum productivity of agricultural lands in the long term.
- (v) Identification of existing and potential conflicts among different land-users, and between land-users and ecosystems, and development of measures to mitigate or eliminate such potential or existing conflicts, with proposed measures being agreed with stakeholders.
- (vi) Development of a GIS-based land use concept<sup>43</sup> and its dissemination to relevant government bodies. The planning document will contain recommendations (including GIS-based maps) for different types of land use given development priorities of rural okrugs and the potential/ constraints of ecosystems.
- (vii) Integration of land-use planning results into the schemes for rational use of land resources of target rural okrugs.
- (viii) Assessment of environmental and social impacts of demonstration projects implemented under Output 1.2 below, and lessons learned summarized to inform the next cycle of land use planning in selected rural okrugs and districts.

<sup>42</sup> This data will be used for GIS modeling under (vi).

<sup>43</sup> The GIS-based land use concept will include landscape (natural & cultural), soil, wildlife, biome maps. Each map will include categories of importance (high-, medium- and low-value) along with sensitivity analysis. The land use concept will balance development priorities (economic and social) with conservation objectives in the area given the current status of ecosystems (habitat status, degree of degradation and sensitivity, available ecosystem services).

91. A monitoring and enforcement system for landscape-level land use planning will be put in place, providing land inspectors with protocols to monitor implementation of ILUPs. The roles and responsibilities of the government institutions involved in territorial planning, monitoring and enforcement will be clearly defined based on their functional roles. The system will have sanctions in place to enforce non-compliance, based on the standing Administrative Code and the Rules on Rational Land Use<sup>44</sup>, and specifically the section on environmental and land use non-compliance. As a counterbalance to the proposed sanctions, the project will develop agro-environmental incentives (Output 1.3 below) to mitigate potential opposition from agricultural land-users towards SLM principles.

92. The project will hold a series of capacity building workshops to train target groups at national, oblast and rayon levels on comprehensive land use planning, effective coordination of relevant stakeholders and monitoring and enforcement of ILUPs. The target groups will include relevant departments of oblast administrations, rayon and rural okrug akimats (land relations and agriculture), regional inspections of the Land Management Committee of the Ministry of National Economy and of the Ministry of Agriculture, River Basin Organizations of the Water Resources Committee of the MOA, oblast-level environmental regulation authorities and agricultural land users. Finally, the project will summarize results of the pilot land use planning exercise and will produce a “how-to” guide for replication purposes at the rayon and oblast levels.

*Output 1.2: Demonstration of sustainable land use and management of agricultural landscapes of steppe and desert ecosystems in Akmola, Almaty, East Kazakhstan, Kostanai, Kzyl Orda and North Kazakhstan oblasts*

93. The project will demonstrate methods for restoration and sustainable land use in two types of agricultural landscapes in target ecosystems – arable lands (lands sown with wheat, grain, rice, fodder crops, fallow and abandoned lands) and grasslands (meadows, cultivated and distant pastures). The project has selected nine demonstration sites in six target oblasts covering an area of 145,503 hectares to demonstrate sustainable land management practices and integrated land use planning. On-the-ground investments will be undertaken to introduce crop rotation systems and green fallow, resulting in enhanced soil quality and productivity of arable lands; efficient use of irrigated water in rice production; restoration of abandoned arable lands; expansion of forage areas; improvement of cultivated pastures through re-seeding; and increase the mobility of livestock to counterbalance livestock grazing pressures on rangelands in steppe and desert ecosystems (please see [Annex on demonstration projects](#) for details). The demonstration work will be performed based on a ‘learning-by-doing’ format for adaptive implementation of demonstration projects.

*Output 1.3: Piloting agro-environmental incentive schemes to promote SLM investments*

94. These agro-environmental incentives are designed to encourage uptake of SLM measures demonstrated under Output 1.2 above. During implementation of the PPG phase, various options for designing and running the agro-environmental scheme have been considered. These include: (i) a single scheme under MOA implemented through the extension services; (ii) separate schemes operated by oblast and district administration; and (iii) a scheme mediated by an NGO rather than an extension service. The second option has been selected as the most viable and feasible given the existing institutional arrangements for the design and implementation of agricultural subsidy schemes in Kazakhstan<sup>45</sup>.

95. In implementing this output, the Project will focus on pilot districts and demonstration projects in Kostanai, Akmola, Almaty, Kzyl Orda and East Kazakhstan. The reasoning behind proposing agro-

<sup>44</sup> If needed, the project will assist in drafting amendments to the Administrative Code and the Rules on Rational Land Use as well as internal instructions/ orders related to non-compliance with land use planning requirements.

<sup>45</sup> Oblast administrations submit subsidy proposals to MOA based on priorities of each region and needs on the ground. MOA then submits to the Ministry of National Economy for approval. Once approved, MOA sends direct transfers to oblasts. Oblast administrations disburse subsidies themselves or send transfers to district authorities for further disbursement.

environmental subsidies in these 5 oblasts is as follows. In northern areas of the country (Kostanai and Akmola oblasts), farmers operate on rain-fed lands and aim to achieve stable gross crop output, often failing to observe crop rotation and production technologies, and mostly specialize in wheat production (monoculture) to secure sales of agricultural products at a certain level. However, a system of reasonable diversification of crops will reduce the load on soil and increase crop productivity per ha as well as lead to rational land use in the northern areas of the country. In Almaty and Kzyl Orda, the situation is different in that many highly profitable crops are cultivated on irrigated lands. Low irrigation water fees and a stable sales market have led to a situation where crop rotation is not observed leading to associated negative impacts. For example, rice production results in heavy soil salinization of rice paddies. Low profit forage crops (e.g. lucerne) fail to motivate farmers to move away from monoculture and introduce crop rotation in rice cultivation. Pilot districts and demonstration projects in Almaty and East Kazakhstan oblasts have been selected to test agro-environmental subsidies for sustainable rangeland management where grazing in distant pastures is applicable and feasible.

96. The project will implement a four-phased approach to piloting agro-environmental schemes in target oblasts. First, the project will conclude MoUs with akimats of target oblasts and districts, and implementers of demonstration projects that will constitute a framework for envisaged cooperation, roles and responsibilities of all involved parties. Second, the Project will conduct an analysis of operational and economic activities of project implementers (farms, agricultural firms) that will include assessment of technologies used, economic parameters and effectiveness of land use practices before the start-up of demonstration projects. Identical mid-term and end-of-project analyses will compare economic and ecological results (SLM specific indicators) of realized demonstration projects vis-a-vis the baseline linking results of each analysis to the design of a subsidy scheme that aims at promoting the use of a specific agricultural practice being tested by the Project<sup>46</sup>. The project will also use the baseline, midterm and final results of demonstration projects to conduct a sensitivity analysis for pilot subsidy schemes. The sensitivity analysis will provide a range of policy options for rayon and oblast level authorities to encourage the desired conservation-friendly behavior on part of farmers. Third, the project—jointly with rayon and oblast akimats—will devise proposals for agro-environmental subsidies as part of the regular exercise performed by local authorities and submit to MOA for consideration and approval. Proposals will consider the ILUPs developed under Output 1.1 and highlight the positive ecological outcomes of demonstrated SLM approaches under Output 1.2, as well as economic costing and results of sensitivity analyses. Together these will serve as a strong justification for proposed agro-environmental measures. Fourth, the project will review existing subsidy options under the Agribusiness 2020 program to generate a Strengths Weaknesses Opportunities Threats (SWOT) analysis and recommendations on how existing policy options can be amended to support agricultural producers in switching to more sustainable and environmentally friendly land use practices. In developing recommendations for the agro-environmental measures, the project will draw on the best international experience available from UNDP and foreign countries (European Union, United States, Canada), and will use results and lessons learned from the piloted agro-environmental subsidies at demonstration sites. Recommendations will be discussed with rayon and oblast akimats and submitted to MOA for consideration.

97. In addition to testing the effectiveness of agro-environmental measures within the project's framework, the Project will analyze the design, allocation, implementation, monitoring and enforcement of existing agricultural subsidies related to land and water resources management. The analysis will review the existing process and institutional arrangements to identify bottlenecks in the system. The aim is to make application of and reporting on agricultural subsidies in general, and green subsidies in particular, more understandable and accessible to medium and small-size farmers, so that these groups are better able to access subsidies (including green subsidies that the project will promote). The analysis will build on lessons learned from pilot agro-environmental measures within the demonstration projects, as

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<sup>46</sup> For example, the project can consider subsidies for the use of resource-saving technologies (irrigation) and crop rotation schemes that will be provided per hectare where evidence of application of such technologies is provided.

described above. The analysis and recommendations will be discussed with stakeholders at district, oblast and national levels to verify the project's findings and ensure the buy-in of relevant stakeholders and feasibility of proposed recommendations. A final document with recommendations on how green subsidies can be integrated into the existing system of agricultural subsidies will be submitted to MOA for consideration and approval.

98. Oblast and/or rayon akimats have confirmed their interest in allocating funds for co-financing agro-environmental subsidies for the purpose of demonstration projects. The GEF incremental resources will provide assistance in: (i) initial piloting of the agro-environmental schemes in target ecosystems through implementation of demonstration projects; (ii) design of agro-environmental schemes based on results of demonstration projects backed up by solid analyses of economic costs and policy options; and (iii) assistance in marketing of the schemes to farmers in target oblasts.

*Output 1.4: Capacity building and awareness raising for SLM advocacy and implementation*

99. Capacity building and awareness raising of agricultural land users and general public: The project will work with the existing agricultural extension and knowledge sharing centers of the MOA, namely KazAgroInnovation and KazAgroMarketing, to devise training modules and master classes<sup>47</sup> on sustainable crop and forage production and livestock breeding for agricultural land users in target oblasts. Training or master classes will cover topics related to good farming and livestock raising practices, land and livestock productivity enhancing technologies. In particular, the following topics have been identified as priority by the stakeholders on the ground during PPG consultations and will be added to the curricula of agricultural extension centers:

- (i) Organic agriculture;
- (ii) modern resource-saving technologies and related technical issues;
- (iii) green manure for enhancement of soil fertility;
- (iv) benefits of crop rotation in maintaining land productivity;
- (v) efficient ways of forage production and guidelines for production of soft and hard types of forage;
- (vi) seasonal pasture and distant rangeland management practices;
- (vii) most applicable approaches to livestock breeding in different regions of Kazakhstan;
- (viii) efficient and effective management approaches in agriculture;
- (ix) business planning and marketing;
- (x) agricultural subsidies including agro-environmental financing: how it works (tangible and non-tangible benefits to consider), how to access subsidies, monitor results and report to authorities;
- (xi) legal and policy framework pertaining to land use (arable lands and grasslands).

100. Training will be delivered through regional and district level affiliates of KazAgroInnovation and KazAgroMarketing with a particular focus on small and medium-size farms. KazAgroInnovation and KazAgroMarketing will provide training facilities and cover training costs, except for the costs associated with the design of the training modules that will be covered by the GEF.

101. The project will organize field workshops and seminars, exchange tours for farmers, local authorities, education and research institutes to share experiences on results and lessons learned through demonstration activities. The project will partner with regional affiliates of the Union of Farmer's Associations for wider outreach to agricultural land users, government authorities, NGOs and the general public. Results and lessons learned from demonstration projects will be presented at rayon, oblast, and

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<sup>47</sup> In Kazakhstan, master classes are a series of thematic sessions held simultaneously; farmers/ agriproducers can attend sessions that best fit their professional interests.

republic levels, at international conferences, as well as in a range of materials for wider outreach. The project will produce a “how-to” guide and educational films highlighting results and lessons learned of demonstration projects for replication purposes. Finally, for the purpose of information sharing, the project will support the ongoing efforts of the knowledge sharing department of KazAgroInnovation in maintaining an electronic library for farmers. Project publications and information materials in Kazakh and Russian will be uploaded to this online library and be available for relevant stakeholders across the country.

102. Institutional effectiveness and staff capacities of akimats, research institutions and training agents: The project, jointly with oblast and rayon akimats, will initiate performance reviews to identify weaknesses and needs for staff capacity building related to sustainable land use planning and management and tailor staff training accordingly. The project will design training and development programs for raising key competencies of current akimat staff of land relations and agricultural departments. The program will be jointly developed with JSC KazAgroInnovation<sup>48</sup> with contributions from the Kazakh State University of Agriculture (KSUA), the Kazakh Agro-Technical University, the Kostanai State University named after Baitursynov, the Kazakh Research Institute of Livestock Breeding and Fodder Production (Almaty), and the Kazakhstan Research Institute of Rice Production (Kzyl Orda). Practitioners from other countries with relevant experience will be invited to provide lectures on specific topics. In addition, a list of trainers with a proven record will be compiled for the use of KazAgroInnovation in the future. KazAgroInnovation will provide training facilities and cover training costs, except for the costs associated with the design of the training modules, and the travel and accommodation of international trainers that will be covered by the GEF. By project end, KazAgroInnovation will officially endorse the professional training and apply for regular financing.

103. The project will also design and implement ToT (training-of-trainers) training covering SLM issues. The ToT training will be provided to experts engaged by KazAgroInnovation and KazAgroMarketing to carry out distant and face-to-face consultations with agricultural producers. The target audience for the ToT training will include members of the Public Union “Farmers of Kazakhstan”, KazFOAM, Agricultural Union of Kazakhstan or KazAgroSoyuz, the Union of Farmers and Agribusiness Center<sup>49</sup> as well as professors of agricultural institutes/ departments and colleges. The project will cover costs associated with the design of the ToT training and contracting international trainers/ practitioners for the delivery of this training.

104. In addition, the project will partner with KazAgroInnovation to expand the existing system of distant and mobile consulting services for agricultural producers by including experts in agricultural marketing since the access to markets (both domestic and foreign) and sales of products have been recognized as a major hurdle for development of organic agriculture in Kazakhstan. Also, the project will conduct a full assessment of distant and mobile services provision by KazAgroInnovation and needs on the ground to compile a menu of needed services and expertise. For example, the PPG consultations revealed that a consulting service on assessing cost-effectiveness and increasing economic profitability of agricultural producers has high demand on the ground and can potentially be included in the menu of payable services thus expanding sources of financing for KazAgroInnovation. The project will use its work on economic assessment and analysis of demonstration projects for the design of agro-environmental measures, as described in Output 1.3 above, to propose most feasible options for the delivery of such services by KazAgroInnovation.

105. Finally, the project will work with existing information and knowledge dissemination centers of JSCs KazAgroInnovation and KazAgroMarketing, and relevant research institutes to improve data management to enable peer-to-peer learning and replication of project results. This will be completed through the assessment of existing information gaps (e.g. on agriculture trends, land use, available

<sup>48</sup> The Concept on Knowledge Sharing System of KazAgroInnovation for 2015-2020 includes the annual provision of professional training for staff dealing with agriculture and land use issues.

<sup>49</sup> Created by the Public Union “Fund of local communities of the Enbenkshikazakh district” in Almaty oblast.

services/ technologies, market and price information, etc.). The pilot projects will be used as a demonstration platform for knowledge sharing among professionals and training of government staff.

106. Improving quality of higher and college training on SLM issues: The project will partner with the Kostanai State University (KSU)<sup>50</sup> in reviewing and updating undergraduate and graduate training modules for agriculture-related professions. Relevant modules will be adapted to current and future needs of the agricultural sector in Kazakhstan covering SLM issues. The project will produce case studies based on the experience, results, and lessons learned from the demonstration projects and land use planning exercises in pilot rural okrugs.

107. Following PPG consultations, the project—jointly with the Kazakh Research Institute of Livestock Breeding and Fodder Production and the Public Union “Farmers of Kazakhstan”—will design a college-level training module on distant rangeland management that will cover such topics as pasture herbage, norms and estimation of carrying capacities of pastures in different climatic zones of Kazakhstan and rangeland management. This module will be piloted as a selective course in several agricultural colleges of East Kazakhstan and Almaty oblasts to generate initial feedback of college teachers and students to better adapt it to the learning needs.

108. Finally, the project will perform region-wide outreach campaigns in the form of organized seminars and presentations in the six target oblasts of the project targeting prospective students for agricultural professions.

#### **Cofinancing for Outcome 1:**

109. Additional to the GEF grant, resources to be provided by non-GEF sources in support of the implementation of Outcome 1 of the GEF-financed project are as follows:

Source	Relevant Activity	Amount (USD)
Ministry of Agriculture, JSC KazAgroInnovation, JSC KazAgroMarketing	Development and promotion of SLM conducive government policies and measures, capacity building and awareness raising	3,300,000
Agricultural department of Kostanai Oblast Akimat	Testing of agro-environmental subsidies (green fallow, forage production, improvement of pastures) in demonstration projects; contribute to design and review of agro-environmental schemes	23,000
Agricultural department of Denisovskiy rayon akimat, Kostanai Oblast	Testing of agro-environmental subsidies (green fallow, forage production, improvement of pastures) in demonstration projects; contribute to design and review of agro-environmental schemes	300,000
Akimats of Ayagoz district (rayon), Malgeldin, Kosagash and Saryarkin rural okrugs, East Kazakhstan Oblast	Testing of agro-environmental subsidies (forage production, livestock distant ranging, improvement of pastures) in demonstration projects; contribute to design and review of agro-environmental schemes	95,000
Akimat of Karabulak rural okrug, Akmola Oblast	Testing of agro-environmental subsidies (green fallow, forage production, improvement of pastures) in demonstration projects; contribute to design and review of agro-environmental schemes	35,220
UNDP	Technical design of and institutional capacity building for implementation of landscape land use planning and demonstration projects in pilot districts. Overall facilitation of capacity building and demonstration activities of the project	550,000
Kazakh Federation of Organic Agriculture Movements (KazFOAM)	Promotion of agro-environmental incentive schemes	50,000
Analytical Center of Economic Policy	Promotion of agro-environmental incentive schemes	1,700,000

<sup>50</sup> During PPG consultations, KSU expressed an interest in partnering with the project for implementation of the education-related outputs. This University is among the major educational institutions operating in the crop (wheat) producing regions of the country with a steady rate of graduates that return and work in rural areas upon graduation. KSU has been included in the list of key education agents of the National Program of Advance Industrial Development.

Source	Relevant Activity	Amount (USD)
in Agricultural Sector (ASEPAS)		
Agrosoyuz of Kazakhstan	Promotion of SLM practices through implementation of demonstration projects	211,914
Public Foundation "Farmer of Kazakhstan"	Promotion of SLM practices through implementation of demonstration projects	270,430
Zher-Ana Astana Public Association	Promotion of SLM practices through implementation of demonstration projects	371,843
Limited Liability Partnership (LLP) "Saryagash"	Promotion of SLM practices through implementation of demonstration projects	310,448
Kazakh Research Institute of Rice Cultivation named after I. Zhakhayev, LLP	Promotion of SLM practices through implementation of demonstration projects; capacity building of agricultural producers and farmers	141,427
North Kazakhstan Agricultural Experimental Station LLP	Promotion of SLM practices through implementation of demonstration projects; capacity building of agricultural producers and farmers	285,110
Organic Agricultural Association (Public Union)	Promotion of SLM practices through implementation of demonstration projects	365,515
Total		8,009,907 <sup>51</sup>

## Outcome 2: Enabling policy environment for integrated land use planning and agro-environmental incentives

110. Under this outcome, the project will facilitate the conditions necessary for development and successful implementation of the integrated land use plans and replication of the demonstration activities developed under Outcome 1. These conditions relate to improved inter-agency coordination on land use planning and management (Output 2.1), and new or amended policies in support of SLM (Output 2.2).

### *Output 2.1: Inter-agency working group established to coordinate integrated land use planning*

111. As stated in the SLM-related barriers section, the transition to SLM-based land use planning, management and financing would require a number of changes in the current land use policies and legislation. Given the fact that the revision of policies and legislation will influence funding and budget allocations, it is critical that all levels of the government are involved in the process. As such, the project will help set up an inter-agency Working Group with the mandate for institutional coordination and effective implementation of integrated land use planning and development of agro-environmental policies. The likely members of the inter-agency WG will include representatives of Departments of Green Economy, and Environmental Monitoring & Information of the Ministry of Energy, Land Management Committee and Budget Planning Department of the Ministry of National Economy, Crop and Livestock Production Departments of the Ministry of Agriculture, Committees for Water Resources, and for Veterinary Control & Oversight of the Ministry of Agriculture, JSC KazAgroInnovation, JSC KazAgroMarketing. The exact list of WG members will be defined during project implementation<sup>52</sup>. The inter-agency Working Group will convene twice a year to review proposed amendments or new policies, regulations and rules. If needed, an ad-hoc meeting can be held to review any pressing issues. The project's experts, as members of the Working Group, will perform an advisory role. Prior to Working Group meetings, the project will hold consultations at oblast, rayon and rural okrug levels to gather feedback from larger stakeholder groups on proposed changes to land use policies and legislation.

### *Output 2.2: New or amended policies developed for adoption by government*

<sup>51</sup> Of this, USD 384,200 will go towards project management costs.

<sup>52</sup> At the PIF stage, it was anticipated that the Land Management Committee of the Ministry of National Economy will chair the inter-agency WG. However, given ongoing changes in the government, determination of the chairmanship will be deferred to the project's inception stage.

112. The Working Group is expected to review the following policies, regulations and rules during project implementation:

- (i) Agro-environmental measures applicable to Kazakhstan: targeted biotopes, eligible beneficial land uses and associated regimes, subsidy rates per ha, administration of subsidies and monitoring checklists (as per Output 1.3 above);
- (ii) amendments to the Land Code on regulating rangelands and pastures<sup>53</sup>, including ownership rights for pastures and hayfields around settlements;
- (iii) amendments to the Land Code on land use planning;
- (iv) changes to by-laws regulating land use issues to include the definition of rational use and its criteria closely aligned with the concept of SLM;
- (v) amendments to the Rules on Rational Land Use related to social and ecosystem dimensions of sustainable land use and non-compliance with the requirements of land use planning;
- (vi) amendments to the Tax Code on privileges for compliance with the SLM requirements for land users, and to the Administrative Code on non-compliance with the SLM requirements by land users and failure to enforce compliance on part of land monitoring authorities;
- (vii) proposals to the draft Law on Organic Agriculture.

113. The Working Group will receive technical inputs/ advice from national and/or international experts on drafting of proposed amendments. Once reviewed, final drafts will be submitted to designated agencies/ ministries for review and approval. If needed, the project will put in time and resources for lobbying, building awareness and political capital, etc. to smooth the way for adoption of proposed policy changes. The project's interventions can be of particular need in advocating for the Law on Rangelands, the Law on Organic Agriculture, and regulatory provisions related to agro-environmental schemes. UNDP Kazakhstan has a good track record in lobbying for legal and policy changes related to protected areas & conservation, water resources management, renewables, efficient energy use, etc. The project will build on this experience in designing and implementing its advocacy activities.

#### Cofinancing for Outcome 2:

114. Additional to the GEF grant, resources to be provided by non-GEF sources in support of the implementation of Outcome 2 of the GEF-financed project are as follows:

Source	Relevant Activity	Amount (USD)
Ministry of Agriculture, JSC KazAgroInnovation, JSC KazAgroMarketing	Participation in the inter-agency WG, review of SLM policies and measures, promotion of SLM policies	550,000
Kazakh Federation of Organic Agriculture Movements (KazFOAM)	Lobbying for Law on Organic Agriculture	50,000
UNDP	Assistance in lobbying and building political awareness and capital for adoption of proposed policy changes	150,000
Farmers Union of Kazakhstan	Lobbying for SLM related changes to government policies, awareness raising among agricultural producers, farmers, government officials and parliament members	200,000
Total		950,000 <sup>54</sup>

<sup>53</sup> If during project implementation, the government will revive its work on a separate law on rangelands, the project will assist the leading government agency (most likely the Ministry of Agriculture) in drafting provisions related to sustainable rangeland management and financing.

<sup>54</sup> Of this, USD 30,000 will go towards project management costs.

## 2.4 Stakeholder analysis

115. At the national, oblast, rayon, and rural okrug levels, the project will engage multiple and diverse institutions, organizations and stakeholder groups. Their current and expected roles are summarized in the table below.

**Table 2. Involvement of stakeholders in project design and implementation**

Stakeholder group	Roles and responsibilities in the project
<b>Government</b>	
Ministry of Agriculture: - Department of production and processing of livestock products - Department of production and processing of crop products	<p><b>Mandate:</b> This is the key government institution responsible for regulating the agricultural sector. It develops and implements state policy and programs on agriculture including the Agribusiness 2020 program.</p> <p><b>Role in project:</b>            Representatives from MOA will sit on the Project's Board and will oversee the implementation of comprehensive land use planning frameworks and SLM demonstration projects in productive agricultural landscapes.            The Ministry will contribute actively to the development of landscape-level land use plans and implementation of SLM demonstration projects.            Its representatives will sit on the inter-agency WG and seek approval of amendments to the Land Code and its by-laws on land-use planning and rational use of land resources, on regulating pastures and rangelands; the Agribusiness 2020 program related to agro-environmental measures; draft laws on organic agriculture and rangelands.</p>
JSC KazAgroInnovation and JSC KazAgroMarketing of MOA, including oblast and district level affiliates	<p><b>Mandate of JSC KazAgroInnovation:</b> It has been established to consolidate results &amp; findings of the agricultural science to accelerate development of agriculture in Kazakhstan. In that sense, the knowledge sharing and agricultural system of KazAgroInnovation aims at broadening the use of latest scientifically tested practices and measures by agricultural producers and farmers is implemented by 11 extension centers under scientific research institutions (SRI) as its branches.</p> <p><b>Mandate of JSC KazAgroMarketing:</b> It has been established to promote competitiveness of agricultural production through provision of marketing and information-related services. KazAgroMarketing has 160 rural information &amp; consulting centers, of which 71 centers are located in 5 oblasts covered by the project. These rural information &amp; consulting centers are established to provide access to information, technologies and consulting services in rural areas including market analysis, logistical support for seminars and workshops, and production of information bulletins.</p> <p><b>Role in project:</b>            JSC KazAgroInnovation is the national executing agency of the project. The Deputy Chair of its Board of Directors will head Project Board meetings. Its representatives will sit on the inter-agency WG.            KazAgroInnovation and KazAgroMarketing will provide capacity building training to agricultural producers and farmers on new and adapted agricultural practices and technologies (including land management), marketing services, access to markets, business planning, etc.            Support and coordinate implementation of SLM related demonstration projects in six pilot oblasts under Output 1.2.            Support in the analysis and review of agro-environmental incentive scheme as proposed by the project under Output 1.3.            Support in the design of training modules on sustainable crop and forage production and livestock breeding for agricultural land users in target oblasts under Output 1.4.            Provide training facilities for the project's capacity building activities.            Ensure relevant staff from KazAgroInnovation and KazAgroMarketing participates in the project's capacity building efforts.            Lead the exercise on expanding a system of distant and mobile consulting services for agricultural producers by including agricultural marketing.            Contribute to development of SLM related policies and laws under Output 2.2.</p>
Committee of Water Resources and its territorial organizations (RBOs) of the Ministry of Agriculture	<p><b>Mandate:</b> This Committee and its territorial organizations – Balkhash -Alakol, Ishim, Tobol-Turgai, Irtysh and Aral-Syr Darya River Basin Organizations (RBOs) –are responsible for management of water resources to meet the needs of water users of different sectors of the economy in an environmentally sustainable and economically optimal way.</p> <p><b>Role in project:</b></p>

Stakeholder group	Roles and responsibilities in the project
	The Committee and its five territorial RBOs will contribute to the development of landscape-level planning frameworks, specifically contributing to discussions on efficiency in water use in agriculture. Its representatives are expected to sit on the inter-agency Working Group.
Ministry of National Economy: Committee on Land Management	<b>Mandate:</b> At the national level, the Committee for Land Resources Management is responsible for development and implementation of state policy and programs on land use planning and land management, geodesies and cartography. Oblast branches of the Committee are responsible for key decisions related to zoning and allocation of land use permits for agriculture, mining, etc., at the oblast level. <b>Role in project:</b> One of the key players in development of integrated land use planning frameworks in the five pilot rural okrugs under Output 1.1. Its representative will sit on the inter-agency Working Group to review policies, rules and regulations under Output 2.2.
Ministry of National Economy: Budget Planning Department	<b>Mandate:</b> Budget Planning Department oversees state budget planning in the short and long-term and ensures budget planning of government ministries and agencies as well as oblast akimats are in line with approved government programs and action plans. <b>Role in project:</b> Its representative will sit on the inter-agency Working Group and contribute to discussions on feasibility of agro-environmental subsidies vis-à-vis budget planning processes and requirements.
Ministry of Energy: Department of Green Economy, Department of Environmental Monitoring & Control	<b>Mandate:</b> The Department of Green Economy implements state policies on green growth and development, mainly the adopted green growth strategy. <b>Role in project:</b> Both departments will sit on the inter-agency WG to review policies, rules and regulations under Output 2.2.
Ministry of Energy: Committee of Environmental Regulation & Control	<b>Mandate:</b> The Committee and its oblast branches are responsible for Environmental Impact Assessments. <b>Role in project:</b> One of the key players in development of integrated land use planning frameworks in the five pilot rural okrugs under Output 1.1.
Akmola, Almaty, East Kazakhstan, Kostanai, Kzyl Orda and North Kazakhstan Oblast Akimats	<b>Mandate:</b> Oblast akimats represent the executive branch of the government and in charge of promoting government policies at the local level considering specifics of each region (i.e. region specific policies and programs). <b>Role in project:</b> Grant official endorsement of pilot land use planning and SLM demonstration projects. Facilitate cooperation of all involved parties in implementation of land use planning schemes and SLM demonstration projects under Outputs 1.1 and 1.2. Assist with development of proposals for agro-environmental subsidies (Output 1.3). Disseminate the project's lessons learned related to landscape-level planning, SLM practices and agro-environmental schemes and advocate for their replication throughout respective oblasts.
District and rural okrug akimats in six target oblasts	<b>Mandate:</b> District and rural okrug akimats represent lower levels of the government's executive branch. They implement policies and programs adopted at oblast level. <b>Role in project:</b> Lead the development and implementation of the landscape-level land use plans by providing coordinating inputs of all stakeholders under Output 1.1. Co-finance demonstration projects under Output 1.2 in selected rural okrugs related to sustainable land and pasture management. In particular, the district akimats will provide subsidies for green fallow and forage production to complement GEF financing. Assist with development of proposals for agro-environmental subsidies (Output 1.3). Disseminate the project's lessons learned related to landscape-level planning, SLM practices and agro-environmental schemes and advocate for their replication throughout respective districts and rural okrugs.
<b>Public Associations, NGOs and community-based organizations</b>	
Zher-Ana Astana Public Association	<b>Mandate:</b> It is a women's rural organization that includes 45 women of the Karabulak village as its members. It aims at expanding the engagement of women in local decision-making. <b>Role in project:</b> Participate in consultations and provide inputs to the development of the landscape-level land use plans in five target districts under Output 1.1.

Stakeholder group	Roles and responsibilities in the project
	Co-finance a demonstration project under Output 1.2 related to sustainable landscape management in Karabulak rural okrug of Akmola oblast. Participate in capacity building training of the project under Output 1.4.
Republican association of farmer public associations and organizations "Agrosoyuz of Kazakhstan"	<b>Mandate:</b> Its main goal is to consolidate interests of farmers and farming organizations and promote cooperation in the agricultural sector. <b>Role in project:</b> Participate in consultations and provide inputs to the development of the landscape-level land use plans in five target districts under Output 1.1. Co-finance a demonstration project under Output 1.2 related to restoration and sustainable management of irrigated lands in Balkhash district of Almaty oblast. Participate in capacity building training of the project under Output 1.4.
Public Union "Farmer of Kazakhstan"	<b>Mandate:</b> It has been created with the purpose to enhance skills and knowledge of farmers through provision of consultations and assistance with development and implementation of projects to increase productivity of farms. <b>Role in project:</b> Participate in consultations and provide inputs to the development of the landscape-level land use plans in five target districts under Output 1.1. Co-finance a demonstration project under Output 1.2 related to sustainable management of irrigated lands in Bayterek rural okrug of Almaty oblast. Assist with the design of a college-level training module on distant rangeland management that will cover such topics as pasture herbage, norms and estimation of carrying capacities of pastures in different climatic zones of Kazakhstan and rangeland management under Output 1.4. Participate in capacity building training of the project under Output 1.4.
Organic Agricultural Association	<b>Mandate:</b> This association was established to unite and protect interests & rights of organic farmers in Kazakhstan. <b>Role in project:</b> Participate in consultations and provide inputs to the development of the landscape-level land use plans in five target districts under Output 1.1. Coordinate implementation a demonstration project under Output 1.2 related to organic agriculture in Fedorovsky district of Kostanai oblast. Participate in capacity building training of the project under Output 1.4.
Kazakh Federation of Organic Agriculture Movements (KazFOAM)	<b>Mandate:</b> Established in 2013, the Federation actively promotes development of organic agriculture in Kazakhstan thus targeting both demand for and supply of organic products, and establishment of adequate legal framework. <b>Role in project:</b> Provide inputs to the design of agro-environmental schemes under Output 1.3. Lobby for SLM related policies including the law on organic agriculture.
Farmers Union of Kazakhstan	<b>Mandate:</b> This nationwide union was established with the purpose of uniting farmers for protection of their rights and interests, assistance in development and implementation of programs related to agricultural entrepreneurship. <b>Role in project:</b> Lobby for SLM related changes to government policies, awareness-raising among agricultural producers, farmers, government officials and parliament members.
<b>Private Sector</b>	
"Saryagash" Limited Liability Partnership (LLP)	<b>Description:</b> Saryagash is a privately owned agricultural production enterprise with the total farmland area of 43,896 ha in the Denisovsky district of Kostanai oblast. <b>Role in project:</b> Implement and co-finance a demonstration project related development of integrated land use planning and management for agricultural lands in the Denisovsky district of Kostanay region under Output 1.2. Participate in capacity building training of the project under Output 1.4.
Eska-Food Limited Liability Partnership (LLP)	<b>Description:</b> Eska-Food is a privately owned farming organization with a total farmland area of 24,000 ha. <b>Role in project:</b> Co-finance a demonstration project under Output 1.2 related to sustainable landscape management in Karabulak rural okrug of Akmola oblast. Participate in capacity building training of the project under Output 1.4.
Rural consumer cooperatives, agricultural production societies, farmer associations, country farms,	<b>Description:</b> These are various community-based organizations designed to serve the needs of their members. <b>Role in project:</b>

Stakeholder group	Roles and responsibilities in the project
individual farmers and local communities	Actively engaged in land use planning development in respective districts and rural okrugs under Output 1.1. Actively engaged in sustainable use demonstrations at pilot sites under Output 1.2 and will contribute labor and other inputs to implementation of demonstration projects. Participate in capacity building training of the project under Output 1.4.
<b>Academia and Research Institutions</b>	
Kostanai State University	<b>Description:</b> This is a regional multidisciplinary university that is an educational, scientific and cultural center for innovations and advancing competence in social and economic development in the northern region of Kazakhstan. <b>Role in project:</b> Review and update undergraduate and graduate training modules for agriculture-related professions based on current and future needs of the agricultural sector in Kazakhstan covering SLM issues. Assist in development of case studies based on the experience, results, and lessons learned from the demonstration projects and land use planning exercises in pilot rural okrugs.
Kazakh Research Institute of Livestock Breeding and Fodder Production	<b>Description:</b> This research institute is one of the largest scientific and methodological centers in Kazakhstan for research works related to cattle breeding, aviculture and crop production and practical implementation of research findings. <b>Role in project:</b> Support project activities related to implementation of demonstration projects on sustainable rangeland management, and monitoring land degradation under Output 1.2. Assist with the design of a college-level training module on distant rangeland management that will cover such topics as pasture herbage, norms and estimation of carrying capacities of pastures in different climatic zones of Kazakhstan and rangeland management under Output 1.4. Its representatives will participate in some meetings of the inter-agency Working Group to review policies, rules and regulations (particular those related to pastures and rangeland management) under Output 2.2.
Kazakh Research Institute of Rice Cultivation named after I. Zhakhayev, LLP	<b>Description:</b> This research institute aims at addressing the needs of agricultural producers in new high-yield rice varieties and water saving technologies in rice production. <b>Role in project:</b> Implement and co-finance a demonstration project related to the use of soil and water saving technologies in rice production in Kzyl Orda oblast under Output 1.2. Participate in capacity building training of the project under Output 1.4.
North Kazakhstan Agricultural Experimental Station	<b>Description:</b> This experimental station or enterprise is a large producer of agricultural products; it has a scientific department that deals with seed breeding and research on climate related changes in crop yields. <b>Role in project:</b> Implement and co-finance a demonstration project related to conservation and improvement of soil fertility and expansion of forage supply through cultivation of grain legume and forage crops in Akkaiyn district of North Kazakhstan oblast under Output 1.2. Participate in capacity building training of the project under Output 1.4.
Analytical Center of Economic Policy in Agricultural Sector (ASEPAS)	<b>Description:</b> The center conducts research and analytical works related to agriculture economics and its aims at development of the agricultural sector through provision of high quality information and analytical products. <b>Role in project:</b> Contribute to the analysis of existing agricultural subsidies and design of agro-environmental schemes under Output 1.3.

## 2.5 Socioeconomic benefits (including gender dimension)

116. The project aims to redirect current agricultural subsidies to finance environmentally friendly, yet economically profitable, agricultural practices via a system of agro-environmental incentives. On-the-ground investments will be undertaken to introduce crop rotation systems and green fallow, resulting in enhanced soil quality and productivity of arable lands; efficient use of irrigated water in rice production; restoration of abandoned arable lands; expansion of forage areas; improvement of cultivated pastures through re-seeding; and increase the mobility of livestock to counterbalance livestock grazing pressures

on rangelands in steppe and desert ecosystems (please see [Annex on demonstration projects](#) for details). This will translate to direct economic benefits in terms of improved productivity of arable land and pastures, improved food availability and security, and an overall improvement of living standards of the rural population. Productivity of fodder and cereal crops is expected to increase over the baseline in demonstration sites (level of increase varies by pilot site; see [Annex on demonstration projects](#) for details). Revitalizing local institutions for pastureland and arable land management and governance will increase social capital and improve empowerment. Local farmers and communities will be encouraged to share benefits and experience creating a positive environment for add-on investments from landowners and users. Additional financial instruments such as tax and loan windows for investments in sustainable land use will also be assessed and tested. Further, SLM demonstration activities will be supported by various capacity building activities (Output 1.4) and changes in the policy environment to make it more supportive of SLM practices, which, in turn, will ensure sustainability of socio-economic benefits over the long term.

117. Support to organic agriculture by expanding the existing system of distant and mobile consulting services for agricultural producers to include experts in agricultural marketing will ensure more farmers participate in organic markets, thus increasing household incomes. The access to markets (both domestic and foreign) and sales of products have been recognized as a major hurdle for development of organic agriculture in Kazakhstan.

118. Gender aspects: The project covers a geographic region with an estimated population of nearly 200,000 people, of which women constitute 43%. UNDP-GEF's annual reporting on its in-situ conservation and SLM projects (for example, conservation of agro-biodiversity or wetland ecosystems, sustainable rangelands management) has revealed that women have become a key partner in rural communities, as they are more receptive to new concepts and more willing to shift to ecosystem-friendly practices, provided that they generate enough income for a household. This project will, therefore, place particular emphasis on ensuring that women are well represented in project implementation and that the impact of project activities on women will be considered.

#### *2.5.1 Representation of women in institutions*

119. Many rural women have no college or higher education. In central towns of rural districts (rayons), the share of women with college or higher education is considerably higher. In the villages and rural districts targeted by the Project, women are visible members of society comprising up to 95% of the staff in state-funded organizations and institutions (schools, kindergartens, medical institutions), as well as in the area of agricultural products processing.

120. In terms of staff composition in pilot district and rural okrug akimats, women comprise about 20-30% on average, largely occupying low-level management positions (department specialists and experts, secretaries). Out of 11 heads (akims) of districts (rayons), rural okrugs and villages targeted by demonstration projects, two (2) akims are women. In the Denisovsky rural okrug of Kostanai Oblast where 18,304 hectares of land area is to be the target of sustainable land management, for example, women's representation is the highest – the head and deputy head of the akim are women, as well as the heads of departments.

121. Among agricultural producers and farmers, women account for up to 40%. Four (4) non-governmental organizations will participate in implementation of demonstration projects, one of which is a women's organization (Zher-Ana Astana Public Association).

122. Public women's councils operate in some target villages/ districts. However, as a public body, they are not active enough. Their activities are mainly limited to working together with the akimat on arranging events for International Women's Day, International Children's Day, and others. Women's councils of rural districts do not properly communicate with women's organizations at the rayon level in arranging workshops and training courses on women's entrepreneurship.

### 2.5.2 *Participation of women in decisions related to natural resource management*

123. The Project's demonstration component will be realized largely in rural areas. In theory, women have equal opportunities but, in practice, due to circumstances (lack of jobs) they are engaged in housework, livestock maintenance, backyard gardening, harvesting food for winter (butter, jam, Kurt, etc.), and bringing up children.

124. Women are not sufficiently engaged in and aware of discussions on and resolution of issues on sustainable use of land and water resources taking place at the district, regional and national levels. This stems from the fact that no local mechanism has yet been set up (e.g. a local self-governance council) that would ensure active participation and influence of women in decision-making for sustainable management of land, pasture and water resources.

### 2.5.3 *Participation of women in project implementation*

125. The project provides equal opportunities for men and women by considering all aspects of gender equality, i.e. equal rights during production and distribution of agricultural products. Workload is expected to be distributed in such a way that men will be largely engaged in field works while women will be active in preparation of seminars, training, project events, as well as processing of agricultural products. Men and women will benefit equally from the project.

126. With implementation of nine (9) demonstration projects covering an area of 145,503 ha, the project will create additional jobs, of which about 20-40% will be occupied by women. Prospective jobs will include processing and sale of farm products, educational and awareness raising events. Demonstration projects focused on forage production will create opportunities for development of livestock farming and family businesses. The project will promote the mechanization of labor processes, including women's labor. It is expected to give impetus to development of organic agriculture for domestic and foreign consumption, which will have overall positive effects on rural livelihoods. Finally, the project will contribute to capacity building of male and female residents of participating villages as well as increase awareness on sustainable land management practices.

127. To better understand the problems of land degradation and its environmental and socio-economic consequences that seriously affect the welfare of local people, as well for capacity building of women in resolving issues related to sustainable land and water resources management and biodiversity conservation, the Project will take the following measures:

- Encourage and support participation of women in demonstration activities by selecting them as implementers of and consultants for pilot projects and integrated land use planning (Outputs 1.1 & 1.2);
- ensure equal representation of men and women in the project's seminars, workshops, training-of-trainers and other educational and awareness raising events of the project (Output 1.4);
- assist in improving cooperation of women in rural districts with non-governmental women's organizations in the region and the oblast and carrying out joint "round tables" and seminars on additional fund raising for development of small business among women of villages (Outputs 1.1, 1.2. & 1.4);
- organize training courses for women on production of goods of folk craft (carpets, clothes, embroidery, etc.), food products (horse milk, camel milk, cheese, etc.), and assist in the participation of women from project areas in rayon and oblast level discussions (Output 1.4);
- engage women from women's organizations in monitoring and evaluation of pilot projects, and also in dissemination of good practices in neighboring rural districts. In particular, the project will actively engage women from local communities in environmental awareness raising activities for various target groups. Also, when contracting specialized institutions for field studies and

assessments, the project will encourage the inclusion of a higher percentage of women on the team (Output 1.2); and

- include activities on improving monitoring and evaluation of gender aspects in the project's annual work plans.

## 2.6 Cost effectiveness

128. GEF funding for the proposed sustainable land management project for Kazakhstan is designed to be catalytic insofar as it builds upon on-going government efforts to improve land use, and on past and current international development efforts to pilot more sustainable practices. In order to realize the project objective of transforming land use practices in steppe and semi-arid zones of Kazakhstan to ensure ecological integrity, food security and sustainable livelihoods in the most cost-effective manner, project design has been based on the following principles.

- (i) The project builds on the government's existing national subsidy programs in the agricultural sector, as well as on the national environmental development approach, with the emphasis being on decentralization and bottom-up planning so that proposed SLM practices and measures are well-suited to the local context. The project also draws on and builds on the past experience of other GEF funded projects (see section on [coordination with other related initiatives](#) below).
- (ii) Existing best practices and approaches in SLM will be piloted within selected representative oblasts. In most cases the adoption of the selected best practices will meet the interests of land users, and the project will apply a cost sharing requirement (see [Annex on demonstration projects](#), specifically the section on proposed demonstration activities and expected costs for each of the nine pilot sites). The demonstration projects will aim to find the best management combination to manage investment cost and preserve or even enhance the crop and pastureland resources, serving to convince land users of the value of the SLM measures.
- (iii) In order to facilitate further replication of best practices in the most cost-effective manner, the project will focus on providing technical advice, developing "how-to" guides, and building the capacity of existing technical extension services (KazAgroInnovation, KazAgroMarketing). The project will, thus, encourage resource allocation by land users and competent authorities in sustainable land use, and only need to cover a limited proportion of direct investments required to demonstrate and propagate the selected best practices. This will lead to better allocation of GEF and non-GEF resources.
- (iv) Regular communication and coordination with other donor agencies working on similar interventions will be established to ensure that there are no overlaps of activities and full advantage of beneficial synergies are taken. Such donor engagement will be realized through participation in the project's inception workshop, stakeholder consultation meetings and round tables at national, oblast and district levels, field visits to demonstration sites and face-to-face consultations.
- (v) In terms of policies that impact sustainable land management, while there is a good foundation of policies and legislation, there remains scope for improvement and this is the focus of Outcome 2 of the project. By strengthening the enabling policy environment, the project will ensure that resources expended in demonstration activities under the project are leveraged to effect broader change, beyond the demonstration sites. Another important element that is missing is the lack of inter-agency involvement in the development and implementation of land use policies, which is critical for sustainable land management. The most cost-effective way of ensuring that the existing policy environment is supportive of SLM, is to provide for inter-agency dialogue and engagement. The project will focus on providing such a forum (Outcome 2). Further, prior to Working Group meetings, the project will hold consultations at oblast, rayon and rural okrug levels to gather feedback from larger stakeholder groups on proposed

changes to land use policies and legislation. Practical experience gained through the pilot activities of the project will inform this policy dialogue.

## **2.7 Innovativeness, sustainability and potential for scaling up**

129. The main innovative aspect of this project is that it introduces, for the first time in Kazakhstan and in post-Soviet regions, the concept of agro-environmental incentive payments as a new incentive mechanism to promote investments in sustainable land management practices.

130. In terms of sustainability of the agro-environmental incentives, one of the main criteria for selecting the best option for running the agro-environmental scheme is the assurance that the scheme will be continued without GEF support upon project completion. Of the various available options, the selected one – separate schemes operated by oblast and rayon administrations – is considered the most viable and feasible given the existing institutional arrangements for the design and implementation of agricultural subsidy schemes in Kazakhstan. At present, oblast administrations submit subsidy proposals to MOA based on priorities of each region and needs on the ground. MOA then submits to the Ministry of National Economy for approval. Once approved, MOA sends direct transfers to oblasts. Oblast administrations disburse subsidies themselves or send transfers to rayon authorities for further disbursement. Dove-tailing the proposed agro-environmental scheme into this existing process will ensure that it is mainstreamed. Furthermore, as mentioned above, the government is fully committed to supporting the transition to agro-environmental measures, and this is the main reason for initiation of this project concept and subsequent development.

131. Replication and dissemination of the new incentive mechanism will be achieved both through short-term and long-term measures. Short-term measures include the careful documentation of results and development of pragmatic replication materials, which will then be disseminated to key stakeholders through a set of national, regional and local events. It will also be scaled up through mass media (for example, thematic radio programs aimed at rural audiences), and via the internet-based knowledge management platform with interactive forums. Long-term measures include: a) documented field experience to be reflected in amended legal, institutional and policy frameworks as well as development of integrated district level land use planning, and b) lessons and experience from the demonstration projects will feed the long-term technical and vocational training curriculums that will form a key aspect of the project capacity building efforts.

## **2.8 Coordination with other related initiatives**

132. The project is complementary to a number of programs and initiatives carried out by the government, UNDP, bilateral and multilateral international organizations and local NGOs. In particular, the GEF project will coordinate the proposed activities with the following complementary programs and projects:

- (i) Over the past few years, UNDP has been supporting the government in developing and implementing several GEF-funded biodiversity and land management projects aimed at strengthening the mountain and wetland protected area systems, demonstrating in-situ conservation of agro-biodiversity, good practice in livestock management, and landscape approaches to steppe conservation and management that promote both the ecological integrity of ecosystems and rural livelihoods. The completed steppe conservation project has contributed considerable knowledge on landscape approaches to territorial planning and stakeholder engagement. This project will build on the accumulated pool of best practices and lessons learned in implementing Output 1.1. The project will utilize the experiences and practices of the UNDP-GEF and GIZ project on sustainable rangeland management for rural livelihood and environmental integrity including functional zoning of pastures, reconstruction of water points at distant pastures, and participatory approaches to herder engagement. For Output 1.2, the

project will cooperate with the new UNDP-GEF project on improving sustainability of Protected Areas in desert ecosystems. In particular, the project will utilize emerging experience on the operationalization of a microcredit facility that will generate biodiversity and land conservation benefits. The two project teams will collaborate closely by attending each other's steering committee meetings, and this collaboration will be facilitated by the UNDP Country Office. The project was designed to complement and benefit from the adaptation and capacity building work of the UNDP-GEF Special Climate Change Fund project in Kazakhstan. Finally, the project will be implemented and closely coordinated with the on-going initiative of UNDP, USAID and KazAgroInnovation on "Improving the Climate Resiliency of Kazakhstan Wheat and Central Asian Food Security", particularly on monitoring and information sharing and implementation of demonstration projects that in addition to being SLM-focused include many of climate adaptation measures in agriculture.

- (ii) The project will coordinate its efforts with the WB-MEWR project in (a) revising the legal framework for promoting more sustainable pasture use and protection of biodiversity and (b) development of one rayon-level territorial plan<sup>55</sup> (Output 1.1 and 1.2). Following UNDP procedures, WB project representatives will be members of the Project Steering Committee that will meet regularly to review the project plan and progress and coordinate inputs.
- (iii) The project will build on the experiences and lessons from the World Bank-GEF project "Biodiversity Conservation in Western Tian-Shan", "Drylands Management Project" and "Forest Protection & Rehabilitation" vis-à-vis participatory land and rangelands management (e.g. herder agreements on restoration and development of degraded rangelands, community management of grazing pressure, and provision of water resources for associated rangelands). In particular, the project employs a number of positive results regarding the environmental, social and economic viability of shifting from current unsustainable agricultural production of monocultures and livestock rearing in dryland ecosystems to a well-balanced and beneficial agricultural system for rural communities.
- (iv) UNDP and GIZ have had a long and productive partnership in the context of the Central Asian Countries Initiative for Land Management (CACILM) programme and, with the departure of ADB from the initiative, are the main international contributors to its implementation. Cooperation has ranged from co-management of projects (such as the CACILM Multi Country Capacity Building project) to technical exchange and collaboration (UNDP SLM projects in Kazakhstan, Kyrgyzstan and Tajikistan with relevant GIZ projects/initiatives such as their pasture management pilot projects in Kyrgyzstan and Kazakhstan, Pamir Natural Resources project in Tajikistan, etc.). In the context of this specific project, GIZ's experience on pasture management has been utilized in development of the project. GIZ will also be on the Steering Committee of this project and play an important role in the project implementation.

## 2.9 Consistency with national priorities and plans

133. The project is in line with the UNCCD 10-year Strategic Plan namely: 1) To develop and promote a national financing strategy on SLM; and 2) To improve the condition of affected agro ecological landscapes. The project advances the objectives of the 2003 National Action Program to Combat Desertification (NAP) and 2006 National Programming Framework on Land Desertification and Degradation. The NAP emphasizes the need to create effective mechanisms across levels to oversee land-use planning, zoning and cropping patterns, in an integrated way. It also emphasizes the need for improving the financial mechanism/incentives to ensure the sustainability of the pastureland. Through the two components, this project directly addresses the above priorities as outlined in the country's NAP. The project is further aligned with the State Program on Poverty Reduction and Sustainable Development

<sup>55</sup> Selection is deferred to the inception stage. MEWR no longer exists following recent restructuring in the government and MOA will most likely be the new counterpart for the project.

(2008–2015), which calls for measures to diversify agricultural subsidy mechanisms in order to better address the issue of land degradation as a socio-economic and environmental problem that “is affecting the ability of rural population to use land to generate income” and places a high priority on sustainable land management.

134. The Project stems directly from Kazakhstan’s priorities under the CACILM regional platform. The Project is included as one of the key activities in the National Program Framework to Combat Land Desertification as part of the mobilization of internal resources as approved by the Government of Kazakhstan under close cooperation with the GEF Council in April 2006. The current proposal provides further details on the scope and objectives of the Project, and its alignment with the Results Based Management (RBM) Framework of the GEF, in particular with the long-term objectives and strategic programs of the Land Degradation Focal Area. It incorporates valuable feedback that was received during the Land Degradation Partnership Forum within the CACILM framework held in Tashkent, Uzbekistan, in June 2003. The forum participants (donors and representatives of the countries) have agreed to: (i) provide a national incentive-based platform for financial incentives to take advantage of the GEF financing programs to combat land degradation; (ii) integrate basic issues of environmental financial incentives into not only the field of sustainable development planning, but also into development frameworks of external cooperation of the countries’ partners; (iii) promote inter-sectoral coordination for harmonized operation of SLM initiatives; and (iv) establish the UNCCD National Working Group on partnership development for implementation of the UNCCD in each country of Central Asia. During the forum, attended by more than 200 professionals worldwide, national, provincial and local delegates presented their achievements and experiences in diversification of resource mobilization on land degradation.

## 2.10 UNDP’s comparative advantage

135. This project is in line with Outcome 1 of UNDP’s Strategic Plan namely “Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded”. In Europe and CIS, UNDP is implementing over 43 GEF projects in biodiversity and SLM in the region through its network of 22 Country Offices. To date, 40% of the total number of projects implemented have been completed with “Highly Satisfactory” ratings and the remainder with “Satisfactory” ratings. In Kazakhstan, UNDP involvement to date in environmental governance and sustainable development has focused on improving the capacity of authorities to plan and implement integrated approaches to environmental and energy development. In this context, UNDP has provided support to the Kazakh government to integrate global environmental concerns and commitments into national and regional planning. Land and biodiversity management represent one of the three sub-areas of environmental assistance that UNDP is providing to Kazakhstan within the UNDAF, including Outcome 2.8 “National environmental protection and natural resource management are sustainably managed.” UNDP already assists Kazakhstan in promoting, designing and implementing activities consistent with both the GEF mandate and national sustainable development plans. UNDP has an acknowledged comparative advantage for capacity building and technical assistance in the field of climate change and land degradation, and has worked with the proposed executing agency – the MOA – on land degradation and climate change before, including the LD project referenced under the national level activities on national programming framework exercises as well as the CACILM multi-country Capacity Building Project. The project fully complies with the comparative advantages matrix approved by the GEF Council. UNDP is currently supporting the government to implement 8 GEF-financed projects (two biodiversity, two social services, two renewable energy and two climate change projects). The Project is aligned with the following UNDAF and CPAP outcomes and outputs:

- **UNDAF Outcome for 2010-2015:** Environmental Sustainability. By 2015, communities, national and local authorities use more effective mechanisms and partnerships that promote environmental sustainability and enable them to prepare, respond and recover from natural and man-made disasters.

- **CPAP Outcome:** Government, educators, communities, civil society and the academic community practice an integrated approach to natural resources management in national and transboundary perspectives.
- **CPAP Output:** Land authorities and stakeholders have the capacity to implement models for land-use planning and management and landscape conservation in steppe and rangeland areas.

### 3. PROJECT RESULTS FRAMEWORK

This project will contribute to achieving the following <b>Country Programme Outcome as defined in the CPAP for 2010-2015</b> : Government, educators, communities, civil society and the academic community practice an integrated approach to natural resources management in national and transboundary perspectives
<b>Country Programme Outcome Indicators</b> : Tools for landscape-level conservation and planning developed and integrated into the stakeholders' policies and practices
<b>UNDP Strategic Plan Primary Outcome</b> : Outcome 1: Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded
Applicable <b>GEF Strategic Objective and Program</b> : Main focus is LD-3: Reduce pressures on natural resources from competing land uses in the wider landscape
Applicable <b>GEF Expected Outcomes</b> : Outcome 3.1: Enhanced cross-sector enabling environment for integrated landscape management; Outcome 3.2: Integrated landscape management practices adopted by local communities
Applicable <b>GEF Outcome Indicators</b> : Indicator 3.1 Policies support integration of agriculture, rangeland, forest, and other land uses Indicator 3.2 Application of integrated natural resource management practices in wider landscapes

Project Strategy	Objectively Verifiable Indicators	Baseline	Target	Sources of verification	Assumptions (details in Annex 3)
Objective: to transform land use practices in steppe and semi-arid zones of Kazakhstan to ensure ecological integrity, food security and sustainable livelihoods	Area of productive landscapes (pasturelands, crop and fodder production lands) in steppe and semi-arid zones under ILUPs that include a focus on maintaining ecosystem services of agricultural landscapes through SLM practices	Zero	750,000 hectares by project end (the indirect area of influence of the project is the entire agricultural landscape of the country – pasture and other agricultural lands – which totals 222.6 million ha)	Project PIR, Independent Evaluation, periodic field surveys/ visits	Political support for integrating SLM principles into the agricultural sector remains strong, facilitating further replication of SLM practices on the ground
	Improvement in % of soil humus content in area where ILUPs are in place	2% on average	8 to 10% on average	Field surveys/ visits	
	Improvement in livestock productivity (as measured by weight gain) in area where ILUPs are in place	Average live weight in degraded pastures/ rangelands is 320 kg	20% weight gain over baseline	Field surveys/ visits	
Outcome 1: Investment in integrated territorial planning and start-up of agro-environmental incentives	Indicators of on-the-ground improvements in crop and fodder productivity, soil fertility, salt content, crop rotation, efficiency in water use, etc. (indicators vary by pilot site)	See table below	See table below	Field monitoring surveys	Central and local governments show willingness to engage local stakeholders in land use planning  Climate change-induced extreme seasonal variations or emerging new threats do not affect pilot

Project Strategy	Objectively Verifiable Indicators	Baseline	Target	Sources of verification	Assumptions (details in Annex 3)
	Access of small and medium farmers in pilot sites to agro-environmental incentives	At present, the nature of agricultural subsidies is such that they are mostly accessible only to large-scale farms	At least 40% of small and medium farms eligible for agro-environmental incentives have access to them by project end	Financial and administrative reports of akimats of target oblasts and districts	<p>projects/ sites in ways that undermine the successes of the demonstration activities</p> <p>Building of sufficient capacity and practical know-how within essential state institutions and local authorities does not take too long allowing for project sustainability</p>
	Successful training program run by affiliates of KazAgroMarketing and KazAgroInnovation for small and medium farms on sustainable crop and forage production and livestock breeding	Training does not adequately cover needs of small and medium farms	At least 75% of small and medium farms in areas where training is delivered send representatives to attend sessions by project end	Training records; training evaluations	
	Successful training program on SLM run by KazAgroInnovation for akimat staff from land relations and agricultural departments in areas where pilot projects are to take place <sup>56</sup>	No such targeted training program	80% of target audience attend sessions by project end	Training records; training evaluations	
	Higher education institutions producing graduates with sound understanding of SLM practices in the agriculture sector and distant rangeland management	Current national and regional higher education institutions are producing limited number of professionals with such training and skills	At least 2 institutions <sup>57</sup> have strengthened curriculums by project end	Curriculums, survey of students and graduates, PIR, terminal report.	
Outcome 2: Enabling policy environment for integrated land use planning and agro-environmental incentives	Inter-agency mechanism for ensuring coordination of integrated land use planning and agro-environmental incentives operating effectively	Does not exist	Inter-agency Working Group has a clear mandate and method of operation to ensure coordination of different land use sectors by project end	Minutes of WG, Project PIRs, Terminal report	<p>Current political commitment to agro-environmental incentives continues to grow</p> <p>Legislative changes required to realize the project objective are agreed to and carried through in a timely manner</p>
	Inclusion of agro-environmental subsidies in State programs	Agro-environmental subsidies do not exist	Agribusiness 2020 program includes such subsidies	Government reports on Agribusiness 2020 program	
	Increase in government financing for SLM practices	No existing subsidies that are 100% SLM related	20% of total agricultural subsidies are agro-environmental or green	Government budget (ag. subsidy budget line)	

<sup>56</sup> Balkhash and Enbekshikazakh districts of Almaty Oblast, Karabulak rural okrug and Akkol district of Akmola Oblast, Ayyagoz district of East-Kazakhstan Oblast, Denisovsky and Fedorovsky districts of Kostanai Oblast, Kzyl Orda City of Kzyl Orda Oblast, Akkaiyn district of North Kazakhstan Oblast

<sup>57</sup> Kostanai State University (KSU) and Kazakh National Agriculture University (KazNAU)

Project Strategy	Objectively Verifiable Indicators	Baseline	Target	Sources of verification	Assumptions (details in Annex 3)
			subsidies, 10 years after the agro-environmental scheme is up and running		
	Amendments to existing policies, regulations, and rules such that the support for SLM is stronger	There are weaknesses in a number of existing policies, rules and regulations	At least 7 types <sup>58</sup> of amendments are developed	Official ordinances (for new laws), approvals from designated ministries (for amendments)	

<sup>58</sup> (1) Agro-environmental measures applicable to Kazakhstan: targeted biotopes, eligible beneficial land uses and associated regimes, subsidy rates per ha, administration of subsidies and monitoring checklists; (2) amendments to the Land Code on regulating rangelands and pastures, including ownership rights for pastures and hayfields around settlements; (3) amendments to the Land Code on land use planning; (4) changes to by-laws regulating land use issues to include the definition of rational use and its criteria; (5) amendments to the Rules on Rational Land Use related to social and ecosystem dimensions of sustainable land use and non-compliance with the requirements of land use planning; (6) amendments to the Tax Code on privileges for compliance with the SLM requirements for land users, and to the Administrative Code on non-compliance with the SLM requirements by land users and failure to enforce compliance on part of land monitoring authorities; (7) proposals to the draft Law on Organic Agriculture.

**Sub-table 1: Indicators of on-the-ground improvements in terms of crop and fodder productivity, soil fertility, salt content, crop rotation, efficiency in water use, etc. (indicators vary by pilot site)**

	Indicator	Baseline	Target
Pilot 1:	Consumption of irrigation water	29,000 m3/ha	24,000 m3/ha
	Rice yield	46-52 hwt/ha	56-62 hwt/ha
	Lucerne share in crop rotation	29%	35%
	Salt content in inundated rice paddies	1.0 %	0.3 %
	% of soil humus in monoculture fields	0.7%	1.2 % <sup>59</sup>
Pilot 2:	Crop products output	45-60 hwt/ha	80 hwt/ha
	Area of irrigated arable land	3,558 ha	4,978 ha
	Area of restored wastelands	0 ha	1,420 ha
	Number of water collectors	0	3
	Volume of water collected	0 m3	1.5 mln. m3
Pilot 3:	Restored irrigation network	0 km	5 km
	Area under forage crops	0 ha	700 ha
	Green fallow land area	0 ha	360 ha
	Humus content of arable land		incr. by 2%
	Wheat yield growth	8-10 hwt/ha	12-15 hwt/ ha
Pilot 4:	Amount of hay stocked	500 tons	1,200 tons
	Agricultural areas managed sustainably	0 ha	18,725 ha
	Area under monoculture	3,100 ha	3,100 ha
	Restored area of degraded arable land	0 ha	160 ha
	Meadows created in sown pastures	0 ha	200 ha
Pilot 5:	Forage crop areas	0 ha	360 ha
	Increased humus content in soil	-	by 8 %
	Forage crop yield	8 hwt/ha	20 hwt/ha
	Area of distant pastures that are in use	0 ha	17,300 ha
	Pasture productivity	2 hwt/ ha	8 hwt/ ha
Pilot 6:	Area of restored hayfields	0 ha	900 ha
	Area under monoculture	15,979 ha	11,979 ha
	Area under forage crops	7,906 ha	11,906 ha
	Area under green fallow	0 ha	4,000 ha
	Increased humus content in soil	2%	Incr. by 10%
Pilot 7:	Wheat yield	8.9 hwt/ ha	12 hwt/ ha
	Ameliorated pasture, hayfields	0 ha	2,000 ha
	Pastures under seasonal rotation	0 ha	10,000 ha
	Area under green fallow	0 ha	500 ha
	Area of re-seeded pastures	0 ha	100 ha
Pilot 8:	Humus content of arable land	Tbd at start	Incr. by 8%
	Increase in wheat yield	10 hwt/ha	12 hwt/ha;
	Increase in hay yield	8 hwt/ha	20 hwt/ha
	Restored area of degraded arable land	0 ha	200 ha
	Areas under lucerne and other forage crops	300 ha	500 ha
Pilot 9:	Increased humus content in soil	Tbd at start	by 10 %
	Rice yield	40 hwt/ha	45 hwt/ha
	Installed equipment for water delivery to inundated rice fields and its accounting	0 units	200 units
	Installed equipment for water discharge from inundated rice fields and its accounting	0 units	200 units
	Consumption of irrigated water	29,500 m3/ ha	23,000 m3/ ha
Pilot 9:	Monoculture (wheat crop) areas	10,590 ha	10,190 ha
	Forage crop areas	1,800 ha	2,200 ha
	Improvement of soil fertility	-	by 0.5%
	Increase in forage crop yield	-	by 2 hwt/ ha
	Reduced costs of forage procurement	-	by 20%

<sup>59</sup> After introducing salt-resistant crops

#### 4. TOTAL BUDGET AND WORK PLAN

<b>Award ID:</b>	<b>00086869</b>
<b>Award Title:</b>	<b>PIMS 5358 LD MSP: Supporting SLM in desert &amp; steppe</b>
<b>Business Unit:</b>	<b>KAZ10</b>
<b>Project Title:</b>	<b>Supporting sustainable land management in steppe and semi-arid zones through integrated territorial planning and agro-environmental incentives</b>
<b>Atlas Project ID</b>	<b>00094050</b>
<b>PIMS number:</b>	<b>5358</b>
<b>Implementing Partner (Executing Agency)</b>	<b>Government of Kazakhstan: KazAgroInnovation of MOA</b>

GEF Outcome/ Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	Atlas Budget Description/ Input	Calendar Years (This is a 5 year project starting in mid-2015 and going through mid-2020; budget amounts below are by calendar year not project year)						Notes	
						Year 1 (2015)	Year 2 (2016)	Year 3 (2017)	Year 4 (2018)	Year 5 (2019)	Year 6 (2020)		Total (USD)
						<b>Amount (USD)</b>							
<b>OUTCOME 1:</b> Investment in integrated territorial planning and start-up of agro-environmental incentives	KazAgroInnovation	62000	GEF	71200	International Consultants	0	13,500	13,650	9,150	0	6,000	<b>42,300</b>	1
				71300	Local Consultants	0	7,817	13,817	20,817	12,000	4,000	<b>58,450</b>	2
				71400	Contractual Services-Individ	32,882	65,764	65,764	65,764	65,764	32,882	<b>328,820</b>	3
				72100	Contractual Services - Companies	0	679,611	267,690	0	0	0	<b>947,301</b>	4
				71600	Travel	0	6,000	6,000	5,000	5,000	3,000	<b>25,000</b>	5
				74200	Audio Visual&Print Prod Costs	636	2,000	2,000	2,000	1,200	430	<b>8,266</b>	6
				75700	Training, Workshops and Conf	8,000	10,000	10,000	10,000	8,000	5,000	<b>51,000</b>	7
				<b>TOTAL Outcome 1</b>	<b>41,518</b>	<b>784,691</b>	<b>378,921</b>	<b>112,731</b>	<b>91,964</b>	<b>51,312</b>	<b>1,461,137</b>		
<b>OUTCOME 2:</b> Enabling policy environment for integrated land use planning and agro-environmental incentives	KazAgroInnovation	62000	GEF	71200	International Consultants	0	0	0	6,000	0	6,000	<b>12,000</b>	8
				71300	Local Consultants	0	2,000	2,000	6,000	6,000	0	<b>16,000</b>	9
				71400	Contractual Services - Individ	13,108	26,216	26,216	26,216	26,216	13,108	<b>131,080</b>	10
				71600	Travel	0	6,000	6,000	6,000	5,000	5,000	<b>28,000</b>	11
				74200	Audio Visual&Print Prod Costs	5,000	8,436	13,000	15,000	15,000	8,620	<b>65,056</b>	12
				74500	Miscellaneous Expenses	0	500	500	500	500	0	<b>2,000</b>	
				75700	Training, Workshops and Conf	500	2,000	2,000	2,000	4,000	1,500	<b>12,000</b>	13
				<b>TOTAL Outcome 2</b>	<b>18,608</b>	<b>45,152</b>	<b>49,716</b>	<b>61,716</b>	<b>56,716</b>	<b>34,228</b>	<b>266,136</b>		
<b>Project Management</b>	KazAgroInnovation	62000	GEF	71400	Contractual Services-Individ	9,230	18,460	18,460	18,460	18,460	9,230	<b>92,300</b>	14
				71600	Travel	1,000	2,000	2,000	3,697	3,730	2,000	<b>14,427</b>	15
				72100	Contractual Services - Companies	0	4,000	4,000	3,000	3,000	3,000	<b>17,000</b>	16
				72400	Communications	500	1,000	1,000	1,000	1,000	500	<b>5,000</b>	17
				74599	UNDP Cost Recovery Chrgs-Bills	4,000	13,000	9,000	7,000	6,000	5,000	<b>44,000</b>	18
				<b>TOTAL Project Management</b>	<b>14,730</b>	<b>38,460</b>	<b>34,460</b>	<b>33,157</b>	<b>32,190</b>	<b>19,730</b>	<b>172,727</b>		
				<b>PROJECT TOTAL</b>	<b>74,856</b>	<b>868,303</b>	<b>463,097</b>	<b>207,604</b>	<b>180,870</b>	<b>105,270</b>	<b>1,900,000</b>		

**Budget notes:**

1	Int'l expert on landscape-level land use planning (3 wks @ \$2,250 per week), <b>Outcome 1, Output 1.1</b> ; Int'l participatory land use planning expert (3 wks @ \$2,250 per week), <b>Outcome 1, Output 1.1</b> ; Int'l Agronomist (3 wks @ \$3,500 per week), <b>Outcome 1, Outputs 1.2 and 1.3</b> ; Int'l invited lecturers (3) to deliver training under <b>Output 1.4</b> (3wks, @ \$2,100 per week); Int'l MTE expert, 50% of total costs (4wks @ \$3,000 per week total); Int'l FE expert, 50% of total costs (4wks @ \$3,000 per week total)
2	Inter-sectoral cooperation & LUP expert (8 wks, \$8,000), <b>Outcome 1, Outputs 1.1 and 1.2</b> ; Agronomist (6 wks, \$3,300), <b>Outcome 1, Outputs 1.2 and 1.3</b> ; Institutional effectiveness & capacity development expert (13 wks, \$7,150), <b>Outcome 1, Output 1.4</b> ; Socio-economist (3 wks, \$3,000), <b>Outcome 1, Outputs 1.1 and 1.2</b> ; Participatory land use planning expert (10 wks, \$5,000), <b>Outcome 1, Output 1.1</b> ; Expert on ILUP How-To guide (4 wks, \$4,000), <b>Outcome 1, Output 1.1</b> ; Expert on agro-environmental incentive schemes (4wks, \$4,000), <b>Outcome 1, Output 1.3</b> ; ToT trainers, 3ppl (2 wks, \$12,000), <b>Outcome 1, Output 1.4</b> ; Expert on results & lessons learned of demo projects (4wks, \$4,000), <b>Outcome 1, Output 1.2</b> ; Local MTE expert, 50% of total costs (4wks @ \$1,000 per week total); Local FE expert, 50% of total costs (4 wks @ \$1,000 per week total)
3	<b>Technical Oversight/Coordination of Outcome 1<sup>60</sup></b> (132.6 wks @ \$700 per week – technical inputs to Outcome 1); Procurement Specialist (156 wks @ \$300 per week), <b>Outcome 1, Outputs 1.1 and 1.2</b> ; Knowledge Management & Outreach Specialist (104 wks @ \$400 per week), <b>Outcome 1, Outputs 1.1, 1.2, 1.3 and 1.4</b> ; SLM Specialist (161 wks @ \$400 per week), <b>Outcome 1, Outputs 1.1, 1.2</b> ; Capacity Building Specialist (208 wks @ \$400 per week), <b>Outcome 1, Output 1.4</b>
4	GEF financing of SLM demonstration projects in agricultural landscapes, 9 total (\$892,301, Pls refer to Annex 2 for details); a subcontract under Output 1.1 on collection & processing of primary data for territorial landscape level planning (\$55,000)
5	Travel costs of 8 int'l experts (see Note 1 above), project technical staff & and local experts (see Notes 2 & 3 above) plus per diem
6	Translation of project reports & documents into 3 languages (Kazakh, Russian & English)
7	Costs associated with (i) rental of conference rooms; (ii) rental of workshop/seminar equipment (projector, flipchart boards, laptop, etc.); (iii) ticket costs of workshop/seminar/training participants plus per diem
8	Int'l MTE expert, 50% of total costs (4wks @ \$3,000 per week total); Int'l FE expert, 50% of costs (4wks @ \$3,000 per week total)
9	Legal expert (8 wks, \$8,000), <b>Outcome 2, Outputs 2.1. and 2.2</b> . Local MTE expert, 50% of total costs (4wks @ \$1,000 per week total); Local FE expert, 50% of total costs (4 wks @ \$1,000 per week total)
10	<b>Technical Oversight/Coordination of Outcome 2</b> (88.4 wks @ \$700 per week – technical inputs to Outcome 2); KM & Outreach Specialist (104 wks @ \$400 per week), <b>Outcome 2, Output 2.2</b> ; SLM Specialist (69 wks @ \$400 per week), <b>Outcome 2, Output 2.2</b> .
11	Travel costs of 2 int'l experts (see Note 8 above), project technical staff & and local experts (see Notes 9 & 10 above) plus per diem
12	Translation & issue of publications (project inception report, How-To guides, lessons learned of demo projects, final publication, leaflets & brochures for seminars, workshops & field visits & other project outreach events to support implementation of Outcomes 1&2)
13	Costs associated with (i) rental of conference rooms; (ii) rental of workshop/seminar equipment (projector, flipchart boards, laptop, etc.); (iii) ticket costs of workshop/seminar/training participants plus per diem
14	Admin & Finance Specialist, full-time for 5 years based in Astana (260 weeks @ \$250 per week), <b>Project Manager's tasks</b> (39 wks @ \$700 per week)
15	Travel costs of Admin & Finance Specialist and Project Manager associated with admin and project management matters plus per diem
16	Annual project audit
17	Internet, land telephone, postage & pouch charges associated with project management
18	<b>Estimated UNDP Direct Project Service/Cost recovery charges for executing services. In accordance with GEF Council requirements, the costs of these services will be part of the executing entity's Project Management Cost allocation identified in the project budget. DPS costs would be charged at the end of each year based on the UNDP Universal Price List (UPL) or the actual corresponding service cost. UNDP direct costs include administrative, financial, HR, procurement and ICT services. The amounts here are estimations based on the services indicated, however as part of annual project operational planning the DPS to be requested during the calendar year would be defined and the amount included in the yearly project management budgets and would be charged based on actual services provided at the end of that year.</b>

<sup>60</sup> Tasks of Technical Oversight/Coordination of Outcomes 1 and 2 (budget notes 3 and 10) and of project management (budget note 14) will be performed by one person. Proposed time allocation is the following: 51% of his/her time to technical oversight of Outcome 1; 34% of time to Outcome 2 and 15% - to purely managerial tasks under Project Management.

Summary of Funds:	Calendar Years						Total
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
UNDP Country Office Astana	116,667	116,667	116,667	116,667	116,667	116,667	<b>700,000</b>
Ministry of Agriculture, JSC KazAgroInnovation, JSC KazAgroMarketing	385,000	770,000	770,000	770,000	770,000	385,000	<b>3,850,000</b>
Agricultural department of Kostanai Oblast Akimat	0	23,000	0	0	0	0	<b>23,000</b>
Agricultural department of Denisovsky rayon akimat, Kostanai Oblast	0	150,000	150,000	0	0	0	<b>300,000</b>
Akimats of Ayagoz district (rayon), Malgeldin, Kosagash and Saryarkin rural okrugs, East Kazakhstan Oblast	0	95,000	0	0	0	0	<b>95,000</b>
Akimat of Karabulak rural okrug, Akmola Oblast	0	35,220	0	0	0	0	<b>35,220</b>
Kazakh Federation of Organic Agriculture Movements (KazFOAM)	0	25,000	25,000	25,000	25,000	0	<b>100,000</b>
Farmers Union of Kazakhstan	0	52,978	52,980	52,978	52,978	0	<b>200,000</b>
Analytical Center of Economic Policy in Agricultural Sector (ASEPAS)	0	340,000	340,000	340,000	340,000	340,000	<b>1,700,000</b>
Agrosoyuz of Kazakhstan	0	50,000	50,000	50,000	50,000	0	<b>211,914</b>
Public Foundation "Farmer of Kazakhstan"	0	67,608	67,608	67,608	67,608	0	<b>270,430</b>
Zher-Ana Astana Public Association	0	92,961	92,961	92,961	92,961	0	<b>371,843</b>
Limited Liability Partnership (LLP) "Saryagash"	0	77,612	77,612	77,612	77,612	0	<b>310,448</b>
Kazakh Research Institute of Rice Cultivation named after I. Zhakhayev, LLP	0	47,142	47,142	47,142	0	0	<b>141,427</b>
North Kazakhstan Agricultural Experimental Station LLP	0	71,278	71,278	71,278	71,278	0	<b>285,110</b>
Organic Agricultural Association (Public Union)		<b>91,378</b>	<b>91,379</b>	<b>91,379</b>	<b>91,379</b>		<b>365,515</b>
<b>SUBTOTAL cofinancing</b>	<b>576,523</b>	<b>2,974,147</b>	<b>2,415,724</b>	<b>2,010,229</b>	<b>1,936,353</b>	<b>946,937</b>	<b>8,959,907</b>

Commented [AKP1]: Funds to be confirmed upon receipt of cofinancing letters.

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## 5. MANAGEMENT ARRANGEMENTS

136. The project will be nationally executed (NEX<sup>61</sup>) by the JSC “KazAgroInnovation” of the Ministry of Agriculture (MOA) that will act both as the Implementing Partner and MOA will be the Beneficiary of the project. Implementation support will be provided by the UNDP Country Office (see Project Governance Arrangements below). In its capacity of Executing Entity, KazAgroInnovation will be responsible for overall project management. Besides, KazAgroInnovation will be responsible for the facilitation of all project activities such as international consultant missions, training for respective staff, ensuring appropriate access to project sites, relevant data, records, agencies and authorities. UNDP will provide support services including procurement and contracting, human resources management, and financial services in accordance with the relevant UNDP Rules and Procedures and Results-Based Management guidelines.

137. As GEF **Implementing Agency**, UNDP is ultimately accountable and responsible for the delivery of results, subject also to their certification by KazAgroInnovation, as Implementing Partner. UNDP shall provide project cycle management services as defined by the GEF Council (described in Section IV Part XII), that will include the following:

- Providing financial and audit services to the project
- Overseeing financial expenditures against project budgets,
- Ensuring that activities including procurement and financial services are carried out in strict compliance with UNDP/GEF procedures,
- Ensuring that the reporting to GEF is undertaken in line with the GEF requirements and procedures,
- Facilitate project learning, exchange and outreach within the GEF family,
- Contract the project mid-term and final evaluations and trigger additional reviews and/or evaluations as necessary and in consultation with the project counterparts.

138. At the request of the Government of Kazakhstan, UNDP shall also provide Direct Project Services (DPS) specific to project inputs according to its policies and convenience. These services, and the costs thereof, are specified in the Letter of Agreement in Annex 5. In accordance with GEF requirements, the costs of these services will be part of the executing entity’s Project Management Cost allocation identified in the project budget. UNDP and the Government of Ecuador acknowledge and agree that these services are not mandatory and will only be provided in full accordance with UNDP policies on recovery of direct costs. Direct project services will be charged annually using the Universal Price List for Direct Project Services requested by the GoE.

139. **Project governance** structure will be aligned with UNDP’s new rules for Results Based Management and will be composed of: (i) Project Executive Group – Project Board; (ii) Project Management; (iii) Project Assurance; and (iv) Project Support. The governance structure is described below:

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<sup>61</sup> In line with standing GEF and UNDP policies, the project will be nationally executed by the Government (referred to as ‘national implementation’ in UNDP terminology). The Government has key control functions related to all aspects of project leadership, management and implementation (e.g. provides the National Project Director, heads and manages the Steering Committee/Project Board, considers and approves key milestones within its jurisdiction – such as annual work plans, budgets, management responses to mid-term and final evaluations, participates in monitoring, etc., as further described in the Management Arrangements). At the same time, under the National Implementation Modality, UNDP can render direct project services on request of Governments. The Government of Kazakhstan has requested such services from UNDP since the national legislation does not allow for direct project execution of international technical assistance by Government entities.

140. Project Executive Group: The Project Board (PB) will be the executive decision making body for the project, providing guidance based upon project progress assessments and related recommendations from the Project Manager (PM). The Project Board will be set up to provide strategic oversight of the Project, and ensure coordination with key baseline initiatives and national investment programs, as well as related activities. The Board will be co-chaired by UNDP and KazAgroInnovation of the Ministry of Agriculture and will consist of nominees from key partners and stakeholders such as the Ministry of Agriculture (Crop and Livestock Production Departments, Water Resources Committee), KazAgroMarketing, Committee on Land Management and Budget Planning Department of the Ministry of National Economy, Departments of Green Economy and Environmental Monitoring & Control of the Ministry of Energy, Akimats of Almaty, Akmola, East-Kazakhstan, Kostanai, Kzyl Orda and North Kazakhstan oblasts, Farmers Union of Kazakhstan (final list to be confirmed).

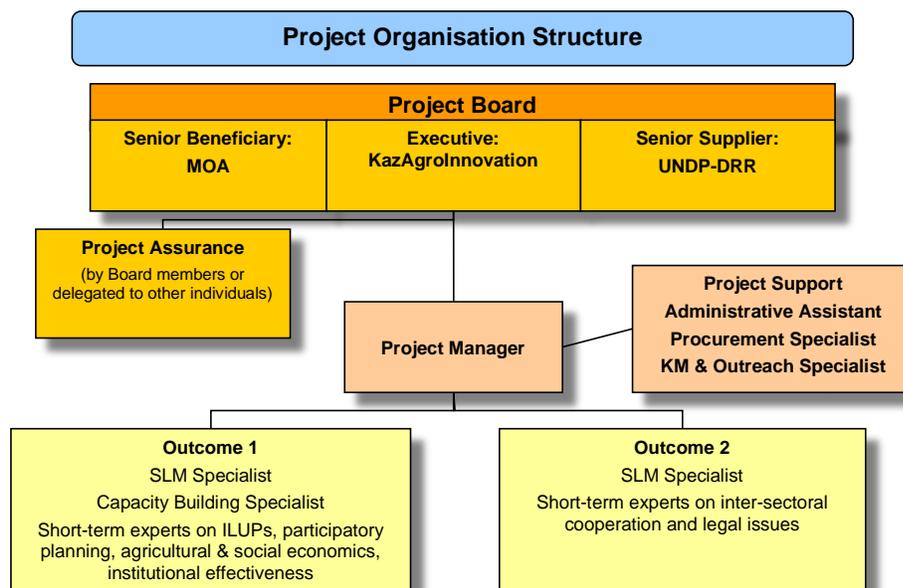
141. The PB will review and approve annual project reviews and work plans, technical documents, budgets and financial reports. The PB will provide general strategic and implementation guidance to the PM. It will meet annually, and make decisions by consensus. The specific rules and procedures of the PB will be decided upon at the project inception meeting. The Project Board is responsible for making management decisions for a project in particular when guidance is required by the Project Manager. The Project Board plays a critical role in project monitoring and evaluations by assuring the quality of these processes and products, and using evaluations for performance improvement, accountability and learning. It ensures that required resources are committed and arbitrates on any conflicts within the project or negotiates a solution to any problems with external bodies. In addition, it approves the appointment and responsibilities of the Project Manager and any delegation of its Project Assurance responsibilities. Based on the approved Annual Work Plan, the Project Board can also consider and approve the quarterly plans (if applicable) and also approve any essential deviations from the original plans. In order to ensure UNDP's ultimate accountability for the project results, Project Board decisions will be made in accordance with standards that shall ensure management for development results, best value for money, fairness, integrity, transparency and effective international competition. In case consensus cannot be reached within the Board, the final decision shall rest with the UNDP Project Manager. The success of the project implementation is dependent upon strong project guidance, coordination and advocacy from the Project Board. The Project Management Unit will be responsible for arranging PB meetings, providing materials to members prior to the meeting, and delineating a clear set of meeting objectives and sub-objectives to be met.

Functions of the Project Board	Representation
Executive: individual representing the project ownership to chair the group.	KazAgroInnovation, Vice-Chair will convene the Project Board's meetings.
Senior Supplier: individual or group representing the interests of the parties concerned, which provide funding for specific cost sharing projects and/or technical expertise to the project. The Senior Supplier's primary function within the Board is to provide guidance regarding the technical feasibility of the project.	UNDP DRR, or a designated UNDP Development Advisor
Senior Beneficiary: individual or group of individuals representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the Board is to ensure the realization of project results from the perspective of project beneficiaries.	MOA
Project Assurance: supports the Project Board Executive by carrying out objective and independent project oversight and monitoring functions. The Project Manager and Project Assurance roles should never be held by the same individual for the same project.	UNDP Staff member

142. **Project Management.** The National Project Manager will be tasked with the day-to-day management of project activities, as well as with financial and administrative reporting. The Project Manager will be responsible for project implementation and will be guided by Annual Work Plans and follow the RBM standards. The Project Manager will prepare Annual Work plans in advance of each successive year and submit them to the Project Executive Group for approval. The National Project Manager will be supported by the Admin/Finance Assistant and by one rayon field director, one at the pilot rayon level. The National Project Manager will have the authority to run the project on a daily basis on behalf of the Implementing Partner within the constraints laid down by the Group. PM's prime responsibility is to ensure that the project produces the planned outputs and achieves the planned indicators by undertaking necessary activities specified in the project document to the required standard of quality and within the specified constraints of time and cost. This will require linking the indicators to the work plan to ensure RBM.

143. **Project Assurance:** UNDP will designate a Development Advisor to provide independent project oversight and monitoring functions, to ensure that project activities are managed and milestones accomplished. The UNDP Development Advisor will be responsible for reviewing Risk, Issues and Lessons Learned logs, and ensuring compliance with the Monitoring and Communications Plan. The UNDP-GEF Regional Technical Advisor will also play an important project assurance role by supporting the annual APR/PIR process.

144. **Project Support:** UNDP will provide financial and administrative support to the project including procurement, contracting, travel and payments.



145. As described above, one of the functions of the Project Board will be to ensure appropriate coordination between project partners and their on-going initiatives. These include UNDP's ongoing GEF-supported sectoral projects in biodiversity conservation and sustainable land management.

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## 6. MONITORING FRAMEWORK AND EVALUATION

146. The Project will be monitored through the following M& E activities. The M& E budget is provided in the table below

### Project start:

147. A Project Inception Workshop will be held within the first 2 months of project start with those with assigned roles in the project organization structure, UNDP country office and where appropriate/feasible regional technical policy and programme advisors as well as other stakeholders. The Inception Workshop is crucial to building ownership for the project results and to plan the first year annual work plan. The Inception Workshop should address a number of key issues including:

- Assist all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP CO and RCU staff vis à vis the project team. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed again as needed.
- Based on the project results framework and the relevant GEF Tracking Tool if appropriate, finalize the first annual work plan. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.
- Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled.
- Discuss financial reporting procedures and obligations, and arrangements for annual audit.
- Plan and schedule Project Board meetings. Roles and responsibilities of all project organization structures should be clarified and meetings planned. The first Project Board meeting should be held within the first 12 months following the inception workshop.

148. An Inception Workshop report is a key reference document and must be prepared and shared with participants to formalize various agreements and plans decided during the meeting.

### Quarterly:

- Progress made shall be monitored in the UNDP Enhanced Results Based Management Platform.
- Based on the initial risk analysis submitted, the risk log shall be regularly updated in ATLAS. Risks become critical when the impact and probability are high. Note that for UNDP GEF projects, all financial risks associated with financial instruments such as revolving funds, microfinance schemes, or capitalization of ESCOs are automatically classified as critical on the basis of their innovative nature (high impact and uncertainty due to no previous experience justifies classification as critical).
- Based on the information recorded in Atlas, a Project Progress Reports (PPR) can be generated in the Executive Snapshot.
- Other ATLAS logs can be used to monitor issues, lessons learned etc... The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

Annually:

149. Annual Project Review/Project Implementation Reports (APR/PIR): This key report is prepared to monitor progress made since project start and in particular for the previous reporting period (30 June to 1 July). The APR/PIR combines both UNDP and GEF reporting requirements. The APR/PIR includes, but is not limited to, reporting on the following:

- Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative)
- Project outputs delivered per project outcome (annual).
- Lesson learned/good practice.
- AWP and other expenditure reports
- Risk and adaptive management
- ATLAS QPR (Quarterly Progress Report)
- Portfolio level indicators (i.e. GEF focal area tracking tools) are used by most focal areas on an annual basis as well.

Periodic Monitoring through site visits:

150. UNDP CO and the UNDP RCU will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the Project Board may also join these visits. A Field Visit Report will be prepared by the CO and UNDP RCU and will be circulated no less than one month after the visit to the project team and Project Board members.

Mid-term of project cycle:

151. The project will undergo an independent Mid-Term Evaluation at the mid-point of project implementation (insert date). The Mid-Term Evaluation will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF. The management response and the evaluation will be uploaded to UNDP corporate systems, in particular the UNDP Evaluation Office Evaluation Resource Center.

152. The GEF's Land Degradation Tracking Tool (excel file in standard format is attached separately) will also be completed during the mid-term evaluation cycle.

End of Project:

153. An independent Final Evaluation will take place three months prior to the final Project Board meeting and will be undertaken in accordance with UNDP and GEF guidance. The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this evaluation

will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF.

154. The Terminal Evaluation should also provide recommendations for follow-up activities and requires a management response which should be uploaded to PIMS and to the UNDP Evaluation Office Evaluation Resource Center.

155. The GEF's Land Degradation Tracking Tool (excel file in standard format is attached separately) will also be completed during the final evaluation.

156. During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results.

Learning and knowledge sharing:

157. Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums.

158. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects.

159. Finally, there will be a two-way flow of information between this project and other projects of a similar focus.

Communications and visibility requirements:

160. Full compliance is required with UNDP's Branding Guidelines. These can be accessed at <http://intra.undp.org/coa/branding.shtml>, and specific guidelines on UNDP logo use can be accessed at: <http://intra.undp.org/branding/useOfLogo.html>. Amongst other things, these guidelines describe when and how the UNDP logo needs to be used, as well as how the logos of donors to UNDP projects needs to be used. For the avoidance of any doubt, when logo use is required, the UNDP logo needs to be used alongside the GEF logo. The GEF logo can be accessed at: [http://www.thegef.org/gef/GEF\\_logo](http://www.thegef.org/gef/GEF_logo). The UNDP logo can be accessed at <http://intra.undp.org/coa/branding.shtml>.

161. Full compliance is also required with the GEF's Communication and Visibility Guidelines (the "GEF Guidelines"). The GEF Guidelines can be accessed at: [http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08\\_Branding\\_the\\_GEF%20final\\_0.pdf](http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08_Branding_the_GEF%20final_0.pdf). Amongst other things, the GEF Guidelines describe when and how the GEF logo needs to be used in project publications, vehicles, supplies and other project equipment. The GEF Guidelines also describe other GEF promotional requirements regarding press releases, press conferences, press visits, visits by Government officials, productions and other promotional items.

162. Where other agencies and project partners have provided support through co-financing, their branding policies and requirements should be similarly applied.

**Table 3. M& E work plan and budget**

Type of M&E activity	Responsible Parties	Budget USD Excluding project team staff time	Time frame
Inception Workshop and Report	Project Manager UNDP CO, UNDP GEF	Indicative cost: 10,000	Within first two months of project start up
Measurement of Means of Verification for project results.	UNDP GEF RTA/Project Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members.	To be finalized in Inception Phase and Workshop.	Start, mid and end of project (during evaluation cycle) and annually when required.
Measurement of Means of Verification for Project Progress on <i>output and implementation</i>	Oversight by Project Manager Project team	To be determined as part of the Annual Work Plan's preparation.	Annually prior to ARR/PIR and to the definition of annual work plans
ARR/PIR	Project manager and team UNDP CO UNDP RTA UNDP EEG	None	Annually
Periodic status/ progress reports	Project manager and team	None	Quarterly
Mid-term Evaluation	Project manager and team UNDP CO UNDP RCU External Consultants (i.e. evaluation team)	Indicative cost: 20,000	At the mid-point of project implementation.
Final Evaluation	Project manager and team, UNDP CO UNDP RCU External Consultants (i.e. evaluation team)	Indicative cost: 20,000	At least three months before the end of project implementation
Project Terminal Report	Project manager and team UNDP CO local consultant	0	At least three months before the end of the project
Audit	UNDP CO Project manager and team	Indicative cost per year: 3,000	Yearly
Visits to field sites	UNDP CO UNDP RCU (as appropriate) Government representatives	For GEF supported projects, paid from Implementing Agency fees and operational budget	Yearly
TOTAL indicative COST Excluding project team staff time and UNDP staff and travel expenses		USD 65,000	

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## 7. LEGAL CONTEXT

163. This document together with the CPAP signed by the Government and UNDP which is incorporated by reference constitute together a Project Document as referred to in the SBAA and all CPAP provisions apply to this document.

164. Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP's property in the implementing partner's custody, rests with the implementing partner.

165. The implementing partner shall:

- (i) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- (ii) assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

166. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

167. The implementing partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

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## 8. ANNEXES

### ANNEX 1: INFORMATION-, AND KNOWLEDGE-SHARING AND CAPACITY BUILDINGS AGENTS IN AGRICULTURE

This annex describes the existing system of knowledge sharing and advance training in land management in Kazakhstan.

#### 1. Knowledge sharing and agricultural extension system of JSC “KazAgroInnovation”

This system is based on the national system of agriculture research (i.e., based on the scientific and research institutions) to facilitate the introduction of scientific developments into practice. The system is aimed at broadening the use of latest scientifically tested practices and measures by agricultural producers and farmers, and is implemented by 11 extension centers under scientific research institutions (SRI) as branches of JSC KazAgroInnovation. The project area includes the following:

- a. EC “Shortandy” under the Scientific and Production Grain Institute named after Barayev (Akmola oblast);
- b. EC “Kostanai” under Kostanay Research Institute of Agriculture, Ltd. (Kostanai oblast);
- c. EC “Kyzylzhar” under North Kazakhstan Research Institute of Livestock Breeding and Crop Production, Ltd. (North Kazakhstan oblast);
- d. EC “Kyzylorda” under Kazakh research institute of rice growing, Ltd (Kyzylorda oblast)
- e. German Agricultural Center (GerAC) under North Kazakhstan Research Institute of Agriculture, Ltd. (Akmola oblast)
- f. EC “Research training center “Baisserke-Agro” under Baisserke –Agro, Ltd. (Almaty oblast)

Topics covered by training and workshops include crop production and agriculture, livestock breeding and veterinary science, agriculture mechanization, resource-saving technologies, forage production, cotton growing, oil crop, rice growing, water-saving irrigation technologies, vegetable and melon growing. Marketing, management and cooperation topics are usually covered by professors of higher institutions (e.g. Kazakh Technical and Agricultural University named after Seifullin, Kostanai State University named after Baitursynov and International Academy “Turan-Professional”). Invited speakers from agricultural departments, JSC “Agriculture Credit Corporation”, JSC “KazAgroFinance” and JSC “KazAgroZerno” deliver training sessions on credit financing and insurance.

In addition to advisory services of the knowledge sharing and agricultural extension centers, in 2014 “KazAgroInnovation” launched a concept of mobile groups for consulting services for agricultural producers<sup>62</sup> and farmers (replacing the hotline that operated from 2010). Agreements on creation of advice centers for mobile groups were signed with 16 branches of scientific & research institutes. In 2014, 23 experts rendered over 4,000 consultations through the advice centers established in rural settlements.

An exchange program between the German and Kazakh agricultural specialists was launched by the German Agricultural Center established by the agreement between the Association of German companies that market agricultural products and the JSC “KazAgroInnovation”.

#### 2. Information and consulting centers of JSC “KazAgroMarketing”

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<sup>62</sup> This mechanism was initially tested under a joint project of the MOA and the World Bank “Enhancing Agricultural Competitiveness”, 2005-2011.

KazAgroMarketing has branches in all regions of Kazakhstan, including the target project area, and consists of 160 rural information & consulting centers, of which 71 centers are located in 5 oblasts covered by the project. These rural information & consulting centers are established to provide access to information, technologies and consulting services in rural areas including market analysis, logistical support for seminars and workshops, and production of information bulletins. Experts note low visibility of these rural centers in dissemination of information and knowledge provision to agricultural producers.

3. Graduate School of Farmers of the Kazakh National University of Agriculture (Almaty city)

The Graduate School of Farmers (GSF) delivers professional training to farmers as well as to the staff of the Kazakh National Agriculture University (KazNAU). The graduate school renders the following types of services to farmers: (i) advisory work on technical, market-related and legal issues, (ii) platforms to discuss research and practical issues (round tables, conferences), (iii) training (workshops, training, field visits). The GSF closely cooperates with the Republican association of the agricultural cooperatives “AgroSoyuzKazakhstan” (Agricultural Union of Kazakhstan) and non-governmental foundation “The Farmer of Kazakhstan”. This cooperation resulted in more than 6,000 consultations (including consultations via phone), 80 workshops, training and field visits for agricultural producers and non-governmental farm associations during 2009-2013, covering the territory of Kazakhstan, with a focus on Almaty and Zhambyl oblasts. Training covered the following topics: crop production, livestock breeding, management and agribusiness, financing and credit, innovations, alternative sources of energy, agro-ecology, processing and storage, cooperation and smallholder farming.

The school has experience with creation of a mobile advice center. In 2009, the “ULKO” Ltd., jointly with the non-governmental foundation “The Farmer of Kazakhstan” and with GSF’s support, opened an advice center for farmers in Baiterek village (Yenbekshikazakh district of Almaty oblast), which existed for 2 years. The center hired specialists from KazNAU, Almaty Technological University, scientific and research institutes, commercial and non-profit organizations that assisted farmers residing in this rural district in clarifying issues and concerns related to agricultural production and technologies. Consultations, workshops, field visits and demonstration training were provided free of charge. In 2009-2010, the World Bank and MOA project “Enhancing Agricultural Competitiveness” supported operations of this advice center.

4. Kazakh Federation of Organic Agriculture Movements (KazFOAM)

The Federation was established in 2013 and it actively promotes approaches to development of organic agriculture in Kazakhstan. The KazFOAM is a pioneer in the field of formation of the demand and supply for organic products and establishment of a relevant legal framework. The Federation was established based on non-governmental organization “Organic center”- one of the KazFOAM co-founders. From 2008 to 2013, the Center covered over 500 people including farmers, local authorities and non-governmental organizations throughout the country providing advisory and training services. Currently, due to the limited funding, the Federation cannot implement its own educational programs. However, it provides expert services via training and consultations of other organizations. If compared to other agricultural advisory and consulting services in Kazakhstan, KazFOAM has succeeded in establishing good working relationships with international partners that the project can tap into during the design of its training modules.

## 5. Higher and college education

Agriculture specialists in the target project area are being trained in two agriculture universities: the Kazakh National University of Agriculture (KazNAU) and the Kazakh Agrotechnical University named after S. Seifullin (KazATU).

KazNAU provides undergraduate and graduate training in crop production, technologies & methods of production and processing of livestock products, veterinary science, forest, land and water resources, economy and law, and engineering. Students can complete their internships at “Baiserke-agro”, Ltd (the 11<sup>th</sup> agricultural extension center of “KazAgroInnovation” established in 2013).

KazATU provides undergraduate and graduate training in agronomy, engineering, veterinary & livestock breeding. In 2013, KazATU established an office of commercialization to promote uptake of research results in agricultural production.

Some regional universities have also established similar offices or centers for providing fee-based services. For example, the Economic Research Center of the Kostanai State University named after Baitursynov, have contracts with agricultural enterprises and businesses for rendering advisory services. In particular, during 2011-2013, the Center signed 40 commercial and public contracts covering the following areas: provision of services on selection, increase of meat and dairy production, approaches to determining sustainability of agricultural production. In 2014, the Center signed a contract with MOA on scientific support of 13 farms of in the oblast that purchased dairy breed cows.

Professors of higher institutions and universities are engaged as trainers by agricultural extension centers to conduct training and workshops for farmers. However, the staff of universities and higher institutions express little interest in participating in field workshops or travelling to neighboring oblasts for training delivery because of relatively low payment and aging of staff (according to the Programme on reforming the national agricultural science, the average age of professors and candidates in agriculture is 62 and 52 respectively).

The Kostanai State University named after Baitursynov and Kostanai Engineering and Economic University named after M. Dulatov noticed a tendency of low enrollment rates for agriculture related faculties. Some agricultural firms and farms have already started a practice of sending prospective students to study agronomy, agricultural engineering and veterinary science by covering school fees. In return, graduates have an obligation to work in agricultural firms/ farms for 5 years. This practice is being widely used in Kzyl Orda oblast.

There exist agrotechnical or agricultural colleges in the project target areas that accept students after the 9<sup>th</sup> grade of secondary school. In addition to agronomists and veterinarians, these institutions train farm machinery operators, land planners and other single-discipline specialists in demand by the agricultural sector.

## 6. Projects of International Organizations and Business Companies

A joint World Bank and MOA project “Enhancing Agricultural Competitiveness” (completed in 2011) facilitated development of an agricultural extension system in Kazakhstan. The ongoing project of the government of Kazakhstan, UNDP and USAID on “Improving the Climate Resiliency of Kazakhstan Wheat and Central Asian Food Security” implemented by the JSC KazAgroInnovation provides training to farmers and implements demonstration projects. The

project's demonstration sites for adaptation of wheat production to climate change were established in Akmola, Kostanai and North Kazakhstan oblasts in 2013.

Since 2013, non-governmental foundation "Local communities of the Yenbekshikazakh district" with the support of the LTD "Phillip Morris Kazakhstan" implements a project on improving living conditions of rural population. Rural farmers that grow vegetables are trained in the basics of entrepreneurship. Since March 2013, training workshops were held for 279 farmers on the following topics: introduction to business planning, risk and cost assessment, agriculture marketing, agriculture innovative technologies. In addition, 20 farmers were trained in soil science and crop protection. This Agro business center has a conference room, computer room and mini laboratory. The Agro business center provides information to farmers of the Yenbekshikazakh district via training and workshops in such areas as advanced technologies for crop production, improvement of performance indicators in agriculture, business skills, agriculture marketing, financing instruments, etc.

#### 7. Union of Kazakhstan Farmers

This nationwide public association was established with the purpose of uniting farmers for protection of their rights and interests, assistance in development and implementation of programs on support of entrepreneurship in agriculture. The union has its headquarters in Astana with branches or representative offices in 12 oblasts of Kazakhstan, including 4 oblasts targeted by the project. As of today, over 6,000 farm enterprises of various sizes are members of the Union. It has a considerable lobbying potential stemming from its past experience in defending farmers' interests during development and approval of agricultural policies and programs. Thus, this valuable experience will be mobilized by the project for advancement of agro-environmental measures and amendments to policy and regulatory frameworks.

#### 8. News agency "Kazakh-Zerno (Grain)"

The Kazakh-Zerno website and newspaper are dynamically developing and popular sources of information among grain producers in Kazakhstan, even though in many case these sources strongly criticize governmental policies in the agricultural sector. Both the website and newspaper represent a platform for agricultural sector experts – professionals assess and express their opinions on current developments in the sector, raise concerns and provide forecasts. The News agency "Kazakh-Zerno" develops and sells info-products covering the following topics: sales and prices trends of commodity exchanges, dynamics of grain and flour markets, export of cereals and oil-yielding crops from Kazakhstan.

**ANNEX 2: PILOT PROJECTS FOR SLM IN AGRICULTURAL LANDSCAPES**

The project has selected 9 pilot projects in six target oblasts, together covering an area of 145,503 hectares, to demonstrate sustainable land management practices and integrated land use planning. Demonstration projects include the use of crop rotation systems and green fallow, efficient use of irrigation water, restoration of abandoned lands, expansion of forage areas, improvement of pastures, and establishment of distant rangeland management systems. Various criteria were used to identify the sites and pilot projects, as follows: willingness of landowners and/or users to be partners and provide co-financing; alignment with relevant government strategies and programs to ensure complementary financing; alignment with relevant international environmental obligations of Kazakhstan; and accessibility of pilot sites for hosting visits/ tours for exchange and dissemination of experience.

Information on pilot sites/ projects is presented in this annex in tabular format, and includes basic background information on the site (location, ownership, etc.), land degradation significance of the site, threats to the site, proposed demonstration activities, as well as socio-economic and gender aspects.

<b>1. ALMATY OBLAST (2 SITES TOTALING 14,978 HA)</b>	<b>64</b>
PILOT PROJECT 1: SUSTAINABLE MANAGEMENT OF DEGRADED IRRIGATED LANDS IN THE SEMI-DESERT ZONE IN THE BALKHASH DISTRICT OF ALMATY OBLAST	64
PILOT PROJECT 2: RESTORATION OF ABANDONED IRRIGATED LANDS BY SECURING WATER SUPPLY THROUGH REHABILITATION OF AN IRRIGATION NETWORK AND ESTABLISHMENT OF WATER COLLECTORS	68
<b>2. AKMOLA OBLAST (2 SITES TOTALING 28,725 HA)</b>	<b>71</b>
PILOT PROJECT 3: SUSTAINABLE LANDSCAPE MANAGEMENT BY SOWING PERENNIAL GRASSES AND SUBSTITUTING WHEAT AS MONOCULTURE WITH BARLEY	71
PILOT PROJECT 4: RESTORATION AND TRANSFER OF WASTELANDS TO ARABLE LANDS BY PLANTING FORAGE GRASSES, CREATION OF MEADOWS AND FUNDAMENTAL IMPROVEMENT OF PASTURES	74
<b>3. EAST KAZAKHSTAN OBLAST (1 SITE TOTALING 17,300 HA)</b>	<b>76</b>
PILOT PROJECT 5: SUSTAINABLE PASTURELAND MANAGEMENT IN THE SEMI-DESERT ZONE OF AYAGOZ DISTRICT THROUGH MOBILE LIVESTOCK BREEDING AND CONSERVATION OF AGRICULTURAL LANDSCAPES	76
<b>4. KOSTANAI OBLAST (2 SITES TOTALING 62,200 HA)</b>	<b>79</b>
PILOT PROJECT 6: DEVELOPMENT OF INTEGRATED LAND USE PLANNING AND MANAGEMENT FOR AGRICULTURAL LANDS IN THE DRY STEPPE ZONE	79
PILOT PROJECT 7: SUSTAINABLE MANAGEMENT OF AGRICULTURAL LANDSCAPES BY EXPANDING ORGANIC AGRICULTURE IN THE KOSTANAI OBLAST	82
<b>5. KZYL ORDA OBLAST (1 SITE TOTALING 1,300 HA)</b>	<b>85</b>
PILOT PROJECT 8: COMBATING DEGRADATION OF IRRIGATED ARABLE LANDS UNDER RICE PRODUCTION SYSTEMS THROUGH INTRODUCTION OF SOIL AND WATER SAVING TECHNOLOGIES IN KZYL ORDA OBLAST	85
<b>6. NORTH KAZAKHSTAN OBLAST (1 SITE TOTALING 21,000 HA)</b>	<b>88</b>
PILOT PROJECT 9: CONSERVATION AND IMPROVEMENT OF SOIL FERTILITY AND EXPANSION OF FORAGE SUPPLY THROUGH CULTIVATION OF GRAIN LEGUME AND FORAGE CROPS IN THE STEPPE ZONE	88

## 1. Almaty Oblast (2 sites totaling 14,978 ha)

Pilot project 1: Sustainable management of degraded irrigated lands in the semi-desert zone in the Balkhash district of Almaty Oblast

*Goal:* Restoration of degraded irrigated lands not used in agriculture due to secondary salinization and bogging.

*Expected results:*

- Technology developed on restoration of abandoned agricultural lands affected by secondary salinization and bogging;
- Crop rotation system for rice production developed and applied to improve management of degraded agricultural lands;
- Water saving technology tested for crop cultivation on degraded lands to ensure 3.5 kg of crop yield per cubic meter of water delivered;
- Land users and local communities trained in restoration of degraded lands, efficient irrigation, improvement of low-fertile takyrs<sup>63</sup>, and water productivity in semi-desert areas with sharp continental arid climate.

Location (administrative district)	Birlik village, Balkhash district/rayon, Almaty Oblast
Area (hectares)	10,000 ha (1,650 ha of direct impact)
Land owner/land user (name, surname, telephones) Expert support and consulting organization	Agricultural firm "Birlik" Republican association of farmer public associations and organizations "Agrosoyuz of Kazakhstan" (hereinafter – Agrosoyuz), <i>President of the association – Mr. Alik Sagindykov</i> , Ph.: (727) 262-11-59, E-mail: <a href="mailto:a.sagindykov@mail.ru">a.sagindykov@mail.ru</a>
Nature and climatic zone	Semi-desert
Description of project site: the area of arable land, pastures, hay fields, number of livestock, fodder grounds, etc.)	Irrigated lands of the Balkhash district are located in the semi-desert zone characterized by dry hot summers and cold low-snow winters. Soils are takyrs-type with various degree of salinization. The project site is located in the Birlik village, which has 350 households and a population of about 4,000 people. The arable lands of the village occupy 5,632 ha, from which 1,650 ha are under rice. Barley and wheat occupy 1,600 ha, and the remaining area is planted with lucerne. Livestock include cows (1,000 heads), sheep and goats (1,350 heads), horses (300 heads).
Significance in terms of SLM	The project will restore abandoned degraded lands to a level suitable for agricultural production – rice cultivation in particular. SLM demonstration activities will improve soil structure and ecosystem services of lands leading to increased productivity of degraded lands per ha. Importantly, project activities will demonstrate approaches to efficient water use in rice production, which is particular important for the region as it currently experiences water shortages. Local communities will receive additional income resulting from increased rice yield per ha and from harvesting forage crops for cattle and sheep. The project will establish a demonstration field covering an area of 400 ha that will be used to educate and train farmers, other land users, and local authorities in new methods for restoration of degraded lands. The proposed restoration approach will decrease salt content in the soil

<sup>63</sup> Takyrs is a type of relief occurring in the deserts of Central Asia, similar to a salt flat in the south-western United States. It is a type of soil that forms in flat, clayey depressions in deserts and semi-deserts. There are two distinct levels in the soil: an upper layer that is up to 8-10 cm thick and consists of a thick, stratified clay crust that contains no salts, and an underlying layer consisting of slightly altered saline soil-forming rock.

	<p>from 1 to 0.2%, increase humus content from 0.5 to 1.2%, improve efficiency of irrigation water from 0.8 kg/m<sup>3</sup> to 3.5 kg/m<sup>3</sup>, and produce up to 80 hwt per ha of crop on restored lands<sup>64</sup>.</p> <table border="1" data-bbox="553 474 1065 737"> <thead> <tr> <th>Indicator</th> <th>Baseline</th> <th>End-of-Project Target</th> </tr> </thead> <tbody> <tr> <td>Consumption of irrigation water</td> <td>29,000 m<sup>3</sup>/ha</td> <td>24,000 m<sup>3</sup>/ha</td> </tr> <tr> <td>Rice yield</td> <td>46-52 hwt/ha</td> <td>56-62 hwt/ha</td> </tr> <tr> <td>Lucerne share in crop rotation</td> <td>29%</td> <td>35%</td> </tr> <tr> <td>Salt content in inundated rice paddies</td> <td>1.0 %</td> <td>0.3 %</td> </tr> <tr> <td>Soil fertility (% of soil humus in monoculture fields)</td> <td>0.7%</td> <td>1.2 % after introducing salt-resistant crops</td> </tr> <tr> <td>Crop products output</td> <td>45-60 hwt/ha</td> <td>80 hwt/ha</td> </tr> </tbody> </table>	Indicator	Baseline	End-of-Project Target	Consumption of irrigation water	29,000 m <sup>3</sup> /ha	24,000 m <sup>3</sup> /ha	Rice yield	46-52 hwt/ha	56-62 hwt/ha	Lucerne share in crop rotation	29%	35%	Salt content in inundated rice paddies	1.0 %	0.3 %	Soil fertility (% of soil humus in monoculture fields)	0.7%	1.2 % after introducing salt-resistant crops	Crop products output	45-60 hwt/ha	80 hwt/ha
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Monitoring of demonstration project	<p>The project and contracted experts will perform regular monitoring (at the beginning, mid and end of project) of land and water conditions using monitoring sites established in the rural okrug at the beginning of project implementation. Primary, mid-term and end-of-project data will then be analyzed and compared to estimate the project progress in terms of mitigating land degradation and improving conditions of abandoned lands via crop rotation, soil fertility, rice and crop products' yield in the target rural okrug. Finally, the project will conduct socio-economic surveys of target groups at the beginning, mid and end of project to register families benefiting from project activities and increase in income of families.</p>																					
Threats to agricultural landscapes and land resources	<p>The project site experiences shortage of irrigation water due to annual reduction of water volumes in the Iliy River. Out of 32,800 ha of irrigated lands in the district, more than 12,000 ha are degraded due to secondary salinization and bogging. This stems from unregulated irrigation of rice fields and unsatisfactory condition of the irrigation and drainage network (over 70% of the water supply network is worn-out and in need of repair).</p> <p>1,625 ha of lands are referred to as highly degraded lands, not suitable for agriculture; management of remaining lands needs to be improved, soil salinity reduced, the soil fertility should be improved through introduction of salt-resistant crops and reducing share of rice in crop production.</p>																					
Proposed demonstration activities and expected costs	<ol style="list-style-type: none"> <li>Setting up a system of crop rotation by sowing locally adapted and salt-resistant forage crops (e.g., oilseed rape, safflower, sweet clover or melilotus, and alfalfa or lucerne) to restore abandoned agricultural lands and test water saving technology for crop cultivation. The project will purchase seeds and fertilizers. Birlik will cover the cost of machinery, fuel and lubricants, plowing and sowing, delivery of irrigation water, and application of fertilizers. The GEF grant will cover USD 19,000, while the Birlik will contribute USD 103,826 in cash and in-kind.</li> <li>Setting up a demonstration rice production field covering an area of 400 ha with relevant equipment to maintain a soil humidity threshold of 75%. The project will cover the costs of acquisition and installation of the following equipment: field hydrometers (5 units); a field laboratory for measuring soil humidity (1 unit); a tensiometer of soil humidity (1</li> </ol>																					

<sup>64</sup> Hwt = hundredweight

	<p>set); piezometers to define the depth of groundwater table (20 units); GGI-300 Vessels (2 units); GGI snow-rain recorder (2 units); soil drill (2 units); a computer for data collection and analysis in field (2 units); electronic scales (1 unit). The "Birlik" agricultural firm will cover equipment delivery and installation costs, costs of personnel working in the field including a project manager and data analyst. The GEF grant will total \$23,400, the Birlik firm cash contribution will amount to \$79,900.</p> <p>3. Organization of field visits and demonstration workshops to share lessons learned with agricultural farms, land users, local authorities. The project will cover travel costs of farmers from Almaty and Kzyl Orda regions as well as local and national authorities, production of booklets and leaflets, filming events. The Birlik firm will provide space for indoor sessions and transportation to the project site. The GEF financing will total USD 45,700, the Birlik cash and in-kind contributions will amount to 28,188.</p> <p>Grand Total: GEF financing – \$88,100; Birlik Agricultural Firm – \$211,914.</p>
<p>State any negative environmental or socio-economic effects, and ways to mitigate them in the project</p>	<p>This demonstration project is expected to produce no negative environmental or socio-economic effects.</p>
<p>Economic benefits for local people</p>	<p>The costs of restoration and introduction of sustainable agricultural land management are one-time and insignificant but generate long-lasting economic effects by providing a sustainable source of income for local farmers and communities. The use of a system of improved crop rotation in rice production by means of sowing salt-resistant and alkaline resistant crops will result in the increase of irrigation water productivity to 3.5 kg per m<sup>3</sup> of water pumped, rice yield by 15% and humus content increase to 1.2%. The crop production output will translate into income growth of farmers. Besides, community members will be provided with high-calorific hay harvested in restored lands for their livestock. Economic effect will be calculated annually after harvesting. The project will engage farmers and local communities (e.g. man-hours, equipment &amp; machinery, knowledge) in all restoration activities. By project end, members of the Birlik firm and communities are expected to gain knowledge and skills related to sustainable rice production.</p>
<p>Involvement of women in project implementation and benefits for women as a result of project implementation</p>	<p>The project will implement the following activities to ensure sufficient engagement of women in demonstration projects and generation of benefits:</p> <ul style="list-style-type: none"> <li>• encourage and support participation of women in restoration activities;</li> <li>• assist in improving cooperation of women in the rural okrug with non-governmental women's organizations in the region and oblast and carrying out joint "round tables" and seminars on additional fund raising for development of small business among women of villages;</li> <li>• engage women in preparation and delivery of workshops, training and field days and assist in the participation of women from other areas of rayon and oblast in the project's events;</li> </ul>

	<ul style="list-style-type: none"> <li>engage women and women's organizations in monitoring and evaluation of pilot projects, and also in dissemination of good practices in neighboring rural okrugs.</li> <li>include activities on improving monitoring and evaluation of gender aspects in the project's annual work plans.</li> </ul>
Involvement of vulnerable population groups	The project is expected to offer a target provision of rice and hay to the most vulnerable population groups in the local community, i.e. large families, single mothers, pensioners and disabled people.
Involvement of youth and school children (if envisaged by the project)	Youth and school children as well as children of farmers will be engaged as participants in workshops and field days.
Training in monitoring for land users, local communities and research institutes	Monitoring of outcomes of pilot projects will take place at least once a year engaging representatives of the Birlık firm, akimats, NGOs and research institutes. Short-term training will be provided on how to track progress of indicators. Field visits will be used for practical demonstration of achieved results and progress. Thematic research institutes will be engaged for capacity building of local authorities, land users and NGOs in land degradation and restoration monitoring. In particular, the project will recruit the staff of the Research Institutes of Water Issues and Melioration of the Kazakh National Agricultural University and the Almaty-based knowledge dissemination center of JSC KazAgroInnovation.

Pilot project 2: Restoration of abandoned irrigated lands by securing water supply through rehabilitation of an irrigation network and establishment of water collectors

*Goal:* Securing ecological integrity of marginal land resources and the use of wastelands in agricultural production

*Expected results:*

- Sustainable management of irrigated lands in the rural okrug by means of introduction of water saving practices, reconstruction of the irrigation network and creation of flood water collectors;
- Improvement of moisture supply in arable lands and mitigation of soil erosion processes.
- Expansion of irrigated arable land area by 30% through inclusion of abandoned lands.

Location (administrative district)	Bayterek rural okrug, Enbekshikazakh district of Almaty Oblast																				
Area (hectares)	4,978 ha total (1,420 ha of direct impact)																				
Land owner/land user (name, surname, telephones)	Margulan Rural Consumer Cooperative of Water Users (RCCWU) and 176 farms, Zvoida Orazbakova, the chairman of "Margulan" RCCWU, ph.: +7 775 584 95 49.																				
Expert support and consulting organization	"Farmer of Kazakhstan" Public Foundation, Vladimir Levin, director, ph. + 7 (727) 262 11 59, mob. +7 777 225 62 30; <a href="mailto:kazfermer@mail.ru">kazfermer@mail.ru</a>																				
Nature and climatic zone	Foothill zone, semi-desert																				
Description of project site: the area of arable land, pastures, hay fields, number of livestock, fodder grounds, etc.)	The project site covers the Bayterek rural okrug. Agricultural lands in the rural unit occupy the area of 4,978 ha, of which 3,558 ha are irrigated arable lands served by the Margulan Cooperative of Water Users. The water users' cooperative plans to restore additional 1,420 ha of degraded arable land and transfer it to irrigated land.																				
Significance in terms of SLM	<p>By restoring the head of irrigation canal, the project will increase the inflow of irrigation water to target agricultural lands including previously abandoned lands.</p> <p>The project will address the risk of experiencing short-term interruption of water supply during peak loads by creating three (3) water collectors thus securing the supply of irrigation water to the farmland area of 4,978 ha.</p> <p>The project will train members of the Margulan Rural Consumer Cooperative of Water Users on water saving, locally-adapted technologies for irrigated agriculture to move away from wasteful irrigation practices in the region and to ensure long-term sustainability of project results.</p> <table border="1" data-bbox="581 1297 1024 1507"> <thead> <tr> <th>Indicator</th> <th>Baseline</th> <th>End-of-Project Target</th> </tr> </thead> <tbody> <tr> <td>Area of irrigated arable land</td> <td>3,558 ha</td> <td>4,978 ha</td> </tr> <tr> <td>Area of restored wastelands</td> <td>0 ha</td> <td>1,420 ha</td> </tr> <tr> <td>Number of water collectors</td> <td>0</td> <td>3</td> </tr> <tr> <td>Volume of water collected</td> <td>0 m<sup>3</sup></td> <td>1.5 mln. m<sup>3</sup></td> </tr> <tr> <td>Restored irrigation network</td> <td>0 km</td> <td>5 km</td> </tr> </tbody> </table>			Indicator	Baseline	End-of-Project Target	Area of irrigated arable land	3,558 ha	4,978 ha	Area of restored wastelands	0 ha	1,420 ha	Number of water collectors	0	3	Volume of water collected	0 m <sup>3</sup>	1.5 mln. m <sup>3</sup>	Restored irrigation network	0 km	5 km
Indicator	Baseline	End-of-Project Target																			
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Volume of water collected	0 m <sup>3</sup>	1.5 mln. m <sup>3</sup>																			
Restored irrigation network	0 km	5 km																			
Monitoring of demonstration project	Project experts, members of the Margulan water users' cooperative, Public foundation "Farmers of Kazakhstan" and representatives of Bayterek rural akimat will perform regular monitoring (at the beginning, mid and end of project) of reconstruction works, land conditions and the use of water saving practices.																				
Threats to agricultural landscapes and land resources	In recent years, the area has experienced disturbances of hydrological regimes and water budgets of rivers resulting in increased silting,																				

	frequency of no-flow periods of temporary water currents and decreased water supply of irrigated lands. As such, considerable areas of arable lands in the area have been transferred to wastelands.
Proposed demonstration activities and expected costs	<p>1. Reconstruction of the head canal to increase the capacity from 1,200 to 2,500 liter/sec. The GEF will finance works related to cleaning, repair and expansion of the main canal of 5 km. The RCCWU will cover the costs of machinery, materials and labor. The GEF financing will total \$11,880, and the RCCWU's estimated costs will be \$147,500</p> <p>2. Construction of three (3) water collectors. The GEF will finance the acquisition of building materials (such as concrete plates, cement, metal) and cover costs of construction works. RCCWU will contribute machinery, equipment and labor. GEF estimated costs will total \$39,250, and RCCWU contribution will amount to \$67,680.</p> <p>3. Organization of training and workshops for members of RCCWU and adjacent neighboring rural settlements on locally adapted water saving technologies and efficient use of irrigated waters; the use of flood water collectors as a measure sustain the continuity of irrigation during peak loads. Organization of field visits for experience sharing and demonstration of achieved project results. The GEF financing will be used for the production of brochures, booklets, posters that will highlight generated results and lessons learned; covering travel costs of farmers outside the project area, authorities from other districts, Almaty Oblast and national government to publicize results of the project. The RCCWU and Public Foundation "Farmers of Kazakhstan" will cover costs of premises, logistical arrangements, and participation of partner organizations. The GEF grant will total \$38,870 with estimated co-financing of \$55,250.</p> <p>Grand Total: GEF- \$90,000; RCCWU -\$270,430</p>
State any negative environmental or socio-economic effects, and ways to mitigate them in the project	This demonstration project is expected to produce no negative environmental or socio-economic effects.
Economic benefits for local people	Expansion of irrigated arable land areas will reduce the area of degraded wastelands, restore agricultural landscapes and improve livelihoods. The income of farmers is expected to increase by more than 15% due to expansion and improved management of irrigated lands.
Involvement of women in project implementation and benefits for women as a result of project implementation	Women will take an active part in project implementation. Out of 176 farms as members of RCCWU, women manage 38 farms. The project implementation will be coordinated by a woman, Zvoida Orazbakova, the RCCWU chairperson. As such, women will be engaged in reconstruction of the irrigation system, which will result in direct benefits from expanded arable lands. Also, women will be engaged in organization of workshops, training and field visits and will participate in the project's education and awareness raising events as the project's direct beneficiaries.
Involvement of vulnerable population groups	The RCCWU members include 8 farms owned by <i>Oralmans</i> <sup>65</sup> . The project will engage a local team of construction workers consisting of <i>Oralmans</i> for the reconstruction of the head canal and construction of flood water collectors.

<sup>65</sup> *Oralmans* or "returnee" is an official term used by the Kazakhstan government to describe ethnic Kazakhs who have immigrated to Kazakhstan since its independence in 1991. *Oralman* usually come from the neighboring countries of China, Mongolia, Uzbekistan, Russia, Kyrgyzstan, and also from countries with notable Kazakh minorities, such as Iran, Afghanistan and Pakistan.

Involvement of youth and school children (if envisaged under the project)	Youth and school children as well as children of farmers will be engaged as participants of workshops and field days.
Training in monitoring for land users, local communities and research institutes	The project will conduct monitoring of achieved outcomes of the pilot project at least once a year engaging farmers, members of the RCCWU cooperative, representatives of Public Foundation “Farmers of Kazakhstan”, the Research Institute on Water Issues and Melioration of the Kazakh National Agricultural University and local authorities of the target rural okrug. The project will organize short-term training for these target groups on how to track progress of pilot project indicators. Also, the project will employ a method of field visits for practical demonstration of achieved results and progress. The project will also engage thematic research institutes for capacity building of local authorities, land users and NGOs in land degradation and restoration monitoring. In particular, the project will recruit the staff of the Research Institutes of Water Issues and Melioration of the Kazakh National Agricultural University, the Almaty-based knowledge dissemination center of JSC “Kazagroinnovation” and the partner NGO “Farmers of Kazakhstan”.

## 2. Akmola Oblast (2 sites totaling 28,725 ha)

Pilot project 3: Sustainable landscape management by sowing perennial grasses and substituting wheat as monoculture with barley

*Goal:* Sustainable agricultural landscape management in dry steppe

*Expected results:* Perennial grasses as a measure for land ‘nourishment’ and protection from adverse impacts secure the productivity and sustainability of farmlands and agricultural landscapes and contribute to the improvement of soil fertility and reduction of land degradation.

Location (administrative district)	Akmola Oblast, Stepnogorsk town, Karabulak village
Area (hectares)	18,725 ha (1,060 ha of direct impact)
Land owner/land user (name, surname, telephones)	<i>Eska-Food LLP:</i> farmland – 24,000 ha, including: arable land -12,000 ha. <i>Olzhas CF</i> (country farm): farmland – 4,725 ha, including: arable land – 950 ha, fallow land – 1,500 ha, pastures – 1,880 ha. <i>Islam CF:</i> arable land – 1,200 ha, fallow land – 800 ha.
Expert support and consulting organization	<i>Project coordinator</i> – Gulmayra Baymakova, Olzhas CF, Head of Zher-Ana Astana Public Association: Tel. 8 (716) 45 42 202; 8 701 122 71 82 e-mail: <a href="mailto:baymakova-gulmayra@mail.ru">baymakova-gulmayra@mail.ru</a>
Nature and climatic zone	Dry steppe
Description of project site: the area of arable land, pastures, hay fields, number of livestock, fodder grounds, etc.)	Out of 50,239 ha of agricultural lands of Karabulak rural okrug, arable lands occupy 5,957 ha, fallow lands – 7,200 ha, pastures – 37,112 ha. Grain crops, mainly wheat, barley and forage crops are cultivated. The population of Stepnogorsk town that is located 12 km from the Karabulak village has a positive growth trend. This results in a greater demand for livestock products (dairy and meat products). The number of cows in Karabulak rural okrug is growing, however, the current forage reserve does not meet the growing demand. Lands within a radius of 10-15 km from the village are already degraded. Eighty-ninety percent of pasturelands and hayfields consist of grasses with low productivity, while crops sown during 2010-2014 occupy only 15% of the total land area in the okrug. Villagers have limited financial resources to expand areas for forage crop cultivation given that seeds of forage crops are expensive. The productivity of arable lands is low because of monoculture cultivation. Unsustainable crop cultivation and livestock breeding, low yield and unsustainable grain production, the growth of livestock numbers coupled with shortages of forage crops for livestock breeding, degradation of arable lands and fodder grounds, aggravating erosion processes resulting in the loss of humus— all these constitute the key problems of agriculture in the region.
Significance in terms of SLM	By introducing green fallow (cover crops and green manure) in three farms, the project will reduce the impact of wind and water passing over the soil surface thus preventing land erosion. The project will create cultivated pastures and generate a sustainable supply of forage for livestock breeding. By adding organic matter to soil, the project will improve its physical condition and structure thus preparing soil for subsequent cash crops such as wheat. Application of green manure will improve soil fertility resulting in increased yield per hectare. As indirect benefit, perennial grasses constitute a diverse cropping system that may create habitat for beneficial insects, which in turn is favorable for restoring agricultural landscapes. Finally, the project will develop a land use plan for agricultural lands of the three target farms to introduce an integrated approach to management of agricultural landscapes that considers vulnerability of this agricultural system and potential for development. Results and lessons learned will be collated and analyzed to produce an integrated land use management plan for the Karabulak rural okrug

	as planned under Outcome 1.																					
	<table border="1"> <thead> <tr> <th>Indicator</th> <th>Baseline</th> <th>End of project target</th> </tr> </thead> <tbody> <tr> <td>Area under forage crops</td> <td>0 ha</td> <td>700 ha</td> </tr> <tr> <td>Green fallow land area</td> <td>0 ha</td> <td>360 ha</td> </tr> <tr> <td>Improved fertility of arable land</td> <td></td> <td>Humus content increased by 2%</td> </tr> <tr> <td>Wheat yield growth</td> <td>8-10 hwt/ha</td> <td>12-15 hwt/ ha</td> </tr> <tr> <td>Amount of hay stocked</td> <td>500 tons</td> <td>1,200 tons</td> </tr> <tr> <td>Agricultural land areas managed in a sustainable manner</td> <td>0 ha</td> <td>18,725 ha</td> </tr> </tbody> </table>	Indicator	Baseline	End of project target	Area under forage crops	0 ha	700 ha	Green fallow land area	0 ha	360 ha	Improved fertility of arable land		Humus content increased by 2%	Wheat yield growth	8-10 hwt/ha	12-15 hwt/ ha	Amount of hay stocked	500 tons	1,200 tons	Agricultural land areas managed in a sustainable manner	0 ha	18,725 ha
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Agricultural land areas managed in a sustainable manner	0 ha	18,725 ha																				
Monitoring of demonstration project	Members of target farms and Karabulak village community along with UNDP/ GEF experts and representatives of local authorities will participate in quarterly monitoring of project progress and results. In addition, partners of "Zher-Ana Astana" Public Association will take an active part in project monitoring.																					
Threats to agricultural landscapes and land resources	<p>Cultivation of monoculture: cultivation of wheat year after year gradually leads to the removal of useful elements from the soil, loss of humus and degradation of lands. Limited crop rotation along with the use of low quality crops also contributes to land degradation.</p> <p>Limited pasture areas and violation of grazing norms leads to degradation of pasture vegetation that results in overall land degradation and aggravation of agricultural landscapes.</p>																					
Proposed demonstration activities and expected costs	<ol style="list-style-type: none"> <li>1. Introduction of green fallow into a grain crop rotation system. Green fallow will include planting perennial grasses such as lucerne, sweet clover, vetch, winter rye in the area of 360 ha. The GEF will finance the purchase of seeds in the amount of \$51,075. Local akimat will contribute with subsidies in the amount of \$11,868. Local communities will cover the costs of fuel and lubricants, land lease, rent of agricultural machinery, and direct cost of per ha crop sowing. Contribution of local communities will total \$123,591.</li> <li>2. Expansion of forage crop areas (wheat grass (<i>agropyron</i>), sainfoin (<i>Onobrychis</i>)) on 700 ha of fallow lands. The GEF grant will be used for the purchase of seeds of forage crops in the amount of \$61,678. Akimat will provide subsidies and will cover the costs of mass media and provide premises for the project's events. Akimat's contribution will total \$23,077. Local communities and target farms will contribute with fuel and lubricants, land lease, rent of agricultural machinery, agricultural technological measures in the estimated amount of \$243,307.</li> <li>3. Development of a land use management plan with introduction of integrated approaches to agricultural landscapes management. The GEF will cover costs of experts to hold consultations and develop a plan. Local akimat will facilitate the consultation process, cooperate with experts by providing required data and information, and will arrange the discussion of draft and final plan. Target farms will cover transportation, food and accommodation costs; will meet with rural women and rural youth to obtain their feedback; arrange a trip to the Karabulak rural okrug and meetings of UNDP-GEF experts with heads of farms and akimat representatives to discuss the plan. To share the experience gained in the course of project implementation, field days will be organized and guidance on how to establish green fallow and improve pastures and hayfields as well as on sustainable dry land management will be published. These costs will be covered by "Zher-Ana Astana" Public Association. In total, GEF will contribute \$1,483, local akimat - \$275, participating farms - \$3,297 and public association - \$1,648.</li> </ol> <p>Grand total: GEF –\$114,236; Akimat –\$35,220; CFs, LLP, PA – \$371,843.</p>																					
State any negative environmental or socio-economic effects, and ways	This demonstration project is expected to produce no negative environmental or socio-economic effects.																					

to mitigate them in the project	
Economic benefits for local people	The improvement of arable land fertility will result in grain yield growth by 3-4 hwt per ha despite the reduced grain crop area. The expansion of forage crop areas will lead to the reduction of pasture degradation and better milk quality and milk yield as well as livestock product output. It is expected that about 700-1,000 tons of high-quality hay will be harvested annually from the forage crop area of 1,060 ha.
Involvement of women in project implementation and benefits for women as a result of project implementation	<p>All aspects of gender approach have been considered under the project: equal rights of men and women at production and distribution of products. Gulmayra Baymakova, the head of "Olzhas" CF, is the organizer of "Zher-Ana-Astana" women's Public Association (PA). This rural PA in Karabulak village includes 45 women. So, women already hold an influential position in the district. As a registered organization, the public association is being treated more seriously by local authorities and other stakeholders in the region. Overall, the project is expected to engage 150 women in the Karabulak rural okrug. The project will implement the following activities to ensure sufficient engagement of women in demonstration projects and generation of benefits:</p> <ul style="list-style-type: none"> <li>• Assist in improving cooperation of women with non-governmental women's organizations in the region and the oblast and carrying out joint "round tables" and seminars on additional fund raising for development of small business among women of the village.</li> <li>• Organize training courses for heads of CFs and mini-farms including women on agricultural technologies and practices.</li> <li>• Organize training courses for women on production of folk handicrafts (carpets, clothes, embroidery, etc.) and food products (milk, cheese, etc.) and assist in the participation of women in project activities at rural okrug, district and oblast levels.</li> <li>• Engage women from women's organizations in monitoring and evaluation of pilot projects, and also in dissemination of good practices in neighboring rural okrugs.</li> <li>• Include activities on improving monitoring and evaluation of gender aspects in the project's annual work plans.</li> </ul>
Involvement of vulnerable population groups	The project will provide support to vulnerable population groups in the Karabulak rural okrug, mainly to disabled people, pensioners, and large families. Over the past 3 years "Zher-Ana Astana" PA invited 88 orphans and disabled children to Olzhas CF every year. In 2015, this charity event will be supported by the two farmers as the project's participants.
Involvement of youth and school children (if envisaged by the project)	The project is expected to engage the rural youth, about 50 people, in project activities related to establishment of green fallow and development of land use management plan.
Training in monitoring for land users, local communities and research institutes	The project will conduct monitoring of achieved outcomes of the pilot project quarterly by engaging farmers, members of the Public Association and local authorities of the target rural okrug. The project will organize short-term training for these target groups on how to track progress of pilot project indicators. Also, the project will use field visits for practical demonstration of results and progress. The project will also engage thematic research institutes for capacity building of local authorities, land users and NGOs in land degradation and restoration monitoring. In particular, the project will partner with the staff of the Astana-based knowledge dissemination center of JSC "KazAgroInnovation".

Pilot project 4: Restoration and transfer of wastelands to arable lands by planting forage grasses, creation of meadows and fundamental improvement of pastures

*Goal:* Rational use of agricultural lands to prevent degradation, restore and improve the productivity of arable lands.

*Expected results:*

- Reduction of wasteland areas
- Expansion of forage crop rotation
- Preservation and improvement of soil fertility through introduction of cultivation practices for wastelands

Location (administrative district)	Akmola Oblast, Akkol district, Azat village																							
Area (hectares)	10,000 ha total, of which 3,500 ha of arable land and 6,500 ha of agricultural lands including pastures, cultivated pastures, hayfields, and abandoned lands																							
Land owner/land user (name, surname, telephones)	"Azat" SPK (Agricultural Production Cooperative Society), Kulzhan Bayanayeva 8 701 2505432, 8 716 45 651 47, <a href="mailto:shepa59@mail.ru">shepa59@mail.ru</a>																							
Expert support and consulting organization	Agricultural Extension Center "Shortandy" of JSC "Kazagroinnovation", Tatyana Bondarenko, 705 102 32 09, <a href="mailto:shortandy.ex@mail.ru">shortandy.ex@mail.ru</a>																							
Nature and climatic zone	Steppe																							
Description of project site: the area of arable land, pastures, hay fields, number of livestock, fodder grounds, etc.)	SPK "Azat" unites 5 country farms. It occupies 3,500 ha of arable land used for grain and grain-and-forage (barley, oats) crop cultivation. Pastures needing fundamental improvement occupy 698 ha. Forage areas and pastures occupy 6,100 ha. Natural and cultivated pastures as well as fallow arable lands are used as hay-lands. Up to 200 cows, 700 sheep and goats and 200 horses graze in these farmlands. Up to 700-800 tons of rough forage/ hay is stocked annually and forage of up to 300-500 tons. In drought years there are problems with forage for livestock.																							
Significance in terms of SLM	<p>The main cultivated crops are wheat and barley that occupy 3,100 ha in country farms. A four-field system of crop rotation is used. The country farms' arable land fertility is decreasing from year to year because of monoculture cultivation. The project is focused on improving arable land fertility and restoration of fallow lands and their inclusion in crop rotation. The project will provide an opportunity for fundamental improvement of pastures as well as grain and forage crop cultivation through the expansion of restored fallow land areas.</p> <table border="1"> <thead> <tr> <th>Indicator</th> <th>Baseline</th> <th>End-of-Project Target</th> </tr> </thead> <tbody> <tr> <td>Area under monoculture</td> <td>3,100 ha</td> <td>3,100 ha</td> </tr> <tr> <td>Restored area of degraded arable land</td> <td>0 ha</td> <td>160 ha</td> </tr> <tr> <td>Meadows created in sown pastures</td> <td>0 ha</td> <td>200 ha</td> </tr> <tr> <td>Forage crop areas</td> <td>0 ha</td> <td>360 ha</td> </tr> <tr> <td>Increased humus content in soil</td> <td>-</td> <td>by 8 %</td> </tr> <tr> <td>Forage crop yield</td> <td>8 hwt/ha</td> <td>20 hwt/ha</td> </tr> </tbody> </table>			Indicator	Baseline	End-of-Project Target	Area under monoculture	3,100 ha	3,100 ha	Restored area of degraded arable land	0 ha	160 ha	Meadows created in sown pastures	0 ha	200 ha	Forage crop areas	0 ha	360 ha	Increased humus content in soil	-	by 8 %	Forage crop yield	8 hwt/ha	20 hwt/ha
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Meadows created in sown pastures	0 ha	200 ha																						
Forage crop areas	0 ha	360 ha																						
Increased humus content in soil	-	by 8 %																						
Forage crop yield	8 hwt/ha	20 hwt/ha																						
Monitoring of demonstration project	Monitoring will be conducted two times a year, in spring and in autumn with engagement of members of "Azat" SPK, experts of the Barayev Grain Research and Production Center and UNDP-GEF experts.																							
Threats to agricultural landscapes and land resources	<p>Cultivation of monoculture: cultivation of wheat year after year gradually leads to the removal of useful elements from the soil, loss of humus and degradation of lands. Limited crop rotation along with the use of low quality crops also contributes to land degradation in the area.</p> <p>Limited pasture areas and violation of grazing norms leads to degradation of pasture vegetation that results in overall land degradation and aggravation of agricultural landscapes.</p>																							
Proposed demonstration activities and expected costs	1. Tillage of fallow lands, preparation for forage crop sowing. The GEF will cover the costs of fertilizers. Members of SPK "Azat" will cover the costs of agricultural machinery, fuels and lubricants, compensation, payment for agrochemical examination of lands. GEF estimated costs will total \$31,500. SPK "Azat" contribution is estimated at \$155,200.																							

	<p>2. Spring tillage and forage crops (sweet clover, lucerne, Agropyron) planting. GEF grant will cover the costs of seeds in the amount of \$43,400. SPK "Azat" will contribute with agricultural machinery, labor, fuels and lubricants costs of \$42,600.</p> <p>3. Crop cultivation in the 1<sup>st</sup> and subsequent years, use of grasses: deep soil cutting, application of mineral fertilizers. SPK "Azat" will pay for fertilizers, costs of agricultural machinery, fuels and lubricants, compensation. Its contribution will total \$69,400.</p> <p>4. Grass layer plowing (adding grass cover to the soil) by disk plowing. SPK "Azat" will cover the costs of agricultural machinery, fuels and lubricants, compensation in the amount of \$19,800.</p> <p>5. Sharing the generated experience by means of field days, publication of information materials, mass media and filming. To demonstrate the results and share the experience, field days will be organized jointly with "Shortandy" Extension Center under the Barayev Grain Research and Production Center. The results of project activity will be widely disseminated and shared with the agricultural department of Akkol district, "Shortandy" Extension Center. GEF will contribute \$5,100; SPK "Azat" – \$3,000.</p> <p>Grand Total: GEF – \$80,000; SPK "Azat" – \$290,000;</p>
State any negative environmental or socio-economic effects, and ways to mitigate them in the project	This demonstration project is expected to produce no negative environmental or socio-economic effects.
Economic benefits for local people	SPK employees, who are mainly residents of Azat village, will be provided with hay and forage for livestock wintering. To improve agricultural land quality, villagers working on land, mainly in country farms, will use this experience and will also grow forage grasses to improve soil quality. It will be favorable for the transition from monoculture cultivation to forage crop growing and diversification in crop cultivation. At the end of the project, the population will get high-quality forage for livestock breeding. Additional benefits from forage production will include an increased number of cows, improved meat and milk quality. The economic effect will be calculated at the end of the project.
Involvement of women in project implementation and benefits for women as a result of project implementation	SPK representatives, 40% of whom are women, will take part in project implementation. Additional jobs will be created for women.
Involvement of vulnerable population groups	<i>Oralmans</i> working at SPK "Azat" and their families will take an active part in project implementation and will directly benefit from the project. The SPK "Azat" will provide hay and forage for wintering of their private livestock.
Involvement of youth and school children	The youth from rural areas will participate in field works during planting and harvesting. The project will engage students from colleges and institutes as seasonal workers.
Training in monitoring for land users, local communities and research institutes	The project will monitor outcomes of the pilot project twice a year engaging farmers of SPK "Azat", residents of Azat village, representatives of rural and district akimats. The project will partner with the Shortandy Extension Center of the Barayev Grain Research and Production Center and organize short-term training for these target groups on how to track progress of pilot project indicators. Also, the project will use field visits for practical demonstration of achieved results and progress.

### 3. East Kazakhstan Oblast (1 site totaling 17,300 ha)

Pilot project 5: Sustainable pastureland management in the semi-desert zone of Ayagoz district through mobile livestock breeding and conservation of agricultural landscapes

*Goal:* Development of seasonal pasture use for conservation of agricultural landscapes and ecosystems in the semi-desert zone of the Ayagoz district

*Expected results:*

- Organization of a system of mobile pasturing in 3 rural okrugs of the Ayagoz district
- Restoration of 900 ha (300 ha in each of 3 rural okrugs) of old hayfields (by old we mean hayfields that were sown many years ago) by over-seeding with Agropyron.
- Local communities of the Ayagoz district are aware of and trained in distant livestock breeding practices.

Location (administrative district)	East Kazakhstan Oblast, Ayagoz district, Malgeldin rural okrug, Kosagash rural okrug, Saryarkin rural okrug		
Area (hectares)	17,300 ha		
Land owner/land user (name, surname, telephones) Expert support and consulting organization	"Edilet" Country Farm (CF), Marat Ayapbergenov, ph. 701 789 33 02, Malgeldin RO; "Kaztay" CF, Tursyn Shapiyev, ph. 778 148 74 56, Kosagash RO; "Darkhan-1" CF, Muratbek Mukazhanov, ph: 8 775 369 02 46, Saryarkin RO.		
Nature and climatic zone	Dry steppe, Semi-desert		
Description of project site: the area of arable land, pastures, hay fields, number of livestock, forage area, etc.)	The Ayagoz district occupies 4.9 million ha and is located in the western part of East Kazakhstan Oblast. The district covers three zones: dry steppe, desertified steppe, semi-desert and hummock areas. Climate aridity predetermines development of livestock breeding in the district. The target rural okrugs are located 243 km (Makeldy village), 290 km (Emeltau village) and 220 km (Baikoshar village) from Ayagoz town respectively. Participating CFs from the target rural okrugs have in total 37,309 heads of cattle, including 6,400 heads of pedigree cattle, 28,748 heads of sheep and goats, and 2,167 horses.		
Significance in terms of SLM	By creating a system of mobile livestock breeding, the project will (i) reduce the load on pastures around settlements allowing for restoration of the vegetative cover; (ii) make distant pastures accessible to the livestock of rural farmers, which in turn will increase productivity of cattle.		
	Indicator	Baseline	End-of-Project Target
	Area of used distant pastures	0 ha	17,300 ha
	Pasture productivity	2 hwt/ ha	8 hwt/ ha
Area of restored hayfields	0 ha	900 ha	
Monitoring of demonstration project	The project will conduct monitoring twice a year, in spring and in autumn, by engaging members of the target CFs, residents of 3 rural okrugs as well as neighboring okrugs, representatives of district and rural okrug akimats and maslikhat members, and UNDP-GEF experts.		
Threats to agricultural landscapes and land resources	The constantly growing number of livestock grazing around villages has led to considerable degradation of pasturelands around populated areas. Low productivity pastures as well as old hayfields (by old we mean hayfields that were sown many years ago) constrain the development of livestock breeding. Availability of stocked hay is twice below the required norm for cattle grazing around rural settlements (or <i>auls</i> in Kazakh) and wintering places during winter. Out of 1,148 wintering places in the Ayagoz district, only 65 are provided with power supply.		

Proposed demonstration activities and expected costs	<p>1. Introduction of mobile livestock management in distant dry steppe and semi-desert pastures of Malgeldin, Kosagash and Saryarkin rural okrugs covering an area of 17,300 ha. The GEF grant will be used to buy 3 transportable cabins for shepherds, solar electric generators, and assessment of pastures and development of pasture rotation schemes in each rural okrug. The GEF contribution will total \$15,715. CFs and local communities will contribute \$24,000 that include construction of a sheep yard, a shelter, haymaking and its delivery to distant sites, as well as delivery of fuels and lubricants, hiring shepherds. The budget from the Aygoz akimat and maslikhat is estimated at \$60,000 and will include construction of wells at 3 distant sites.</p> <p>2. Acquisition of a drilling unit for setting up wells at distant pastures of the Ayagoz district. The estimated contribution from akimat and the maslikhat of the Ayagoz district will total \$30,000.</p> <p>3. Amelioration of 1,500 ha of old hayfields (by old we mean hayfields that were sown many years ago) through seeding of highly productive and locally adaptive forage culture (Agropyron). The GEF grant will cover the purchase of Agropyron seeds costing \$48,600. Target CFs and local communities will contribute with man-hours, machinery for land cultivation, plowing, sowing. Estimated costs will total \$225,000.</p> <p>4. Awareness raising and training of local community members of the Ayagoz district in distant pasture livestock breeding. The project envisages training for cattle owners on allowable grazing loads, rules for seasonal pasture rotation, etc. The GEF funds will cover the costs of training, contracting experts including travel costs and publication of training materials and booklets. The estimated GEF contribution will total \$25,685. Akimats will contribute \$5,000 to cover costs of a demonstration workshop, dissemination of project experience and publication of articles in mass media.</p> <p>Grand Total: GEF grant – \$90,000. CFs – \$225,000. Ayagoz district and rural okrug akimats and maslikhat – \$95,000.</p>
State any negative environmental or socio-economic effects, and ways to mitigate them in the project	This demonstration project is expected to produce no negative environmental or socio-economic effects.
Economic benefits for local people	The costs of restoration and introduction of sustainable pasture and land management are one-time and insignificant but generate long-lasting economic effects by providing a sustainable source of income for local communities. Cattle grazing in more productive distant pastures will lead to the improvement of livestock productivity and creation of a sustainable livelihood system for villagers. The economic effect will be annually estimated. The project will engage local communities (e.g. man-hours, equipment & machinery, knowledge) in project activities. By end of project, communities and rural cooperative members are expected to gain knowledge and skills related to sustainable land and pasture management.
Involvement of women in project implementation and benefits for women as a result of project implementation	Women make up 40% of participating country farms and will be actively engaged in project activities as direct beneficiaries. Women will play a leading role in keeping animals during stabled periods and in processing and selling livestock (dairy and meat) products.
Involvement of vulnerable population groups	Improved livestock productivity in the three target rural okrugs will allow members of country farms to extend support to most vulnerable groups in their respective communities: disabled people, pensioners and large families.

Involvement of youth and school children (if envisaged by the project)	It is expected that young people (18 to 25) will be engaged in project activities as shepherds for distant pastures.
Training in monitoring for land users, local communities and research institutes	The project will conduct monitoring of outcomes twice a year engaging representatives of akimats, land users, and research institutes. The project will organize short-term training sessions for these target groups on how to track progress of pilot project indicators. Also, the project will use field visits for practical demonstration of achieved results and progress. The project will also engage thematic research institutes for capacity building of local authorities, land users in land degradation monitoring. In particular, the project will recruit the staff of the Livestock Research Institute (Almaty city), and the Astana-based knowledge dissemination center of JSC “KazAgroInnovation”.

#### 4. Kostanai Oblast (2 sites totaling 62,200 ha)

Pilot project 6: Development of integrated land use planning and management for agricultural lands in the dry steppe zone

*Goal:* Improve productivity of agricultural lands through the reduction of monoculture areas and the use of green agricultural practices for ecosystem conservation

*Expected results:*

- Reduced agricultural areas with monoculture cultivation.
- Expansion of land areas under forage crops.
- Introduction of green fallow in crop rotation.
- Development and use of seasonal pasture rotation schemes

Location (administrative district)	Kostanay region, Denisovsky district, Perelesky village																										
Area (hectares)	43,896 ha																										
Land owner/land user (name, surname, telephones)	Utegen Murtazin, Director of Limited Liability Partnership (LLP) "Saryagash"; 8(714)34-93-1-18; 777-272-60-10; e-mail: Sariagash63@mail.ru																										
Nature and climatic zone	Dry steppe																										
Description of project site: the area of arable land, pastures, hay fields, number of livestock, forage lands, etc.)	Total farmland area – 43,896 ha including arable lands of 26,800 ha (wheat occupies 15,979 ha), forage crop lands of 4,381 ha; pastures and hayfields of 15,622 ha, other lands of 1,473 ha. LLP Saryagash has 1,885 heads of cows.																										
Significance in terms of SLM	<p>By moving to a system of 6-7 field crop rotation and adding green fallow and forage lands (instead of just fallow lands), the project will improve the fertility of soil, which will be beneficial for subsequent wheat cultivation.</p> <p>By adding forage lands, harvested hay will be used for livestock feeding during winters. This will create a sustainable supply of forage in the area.</p> <p>The project will upgrade infrastructure at distant pastures thus making it feasible to introduce seasonal movement of livestock to more productive pastures, resulting in reduced pressure on pastures on the lands of LLP Saryagash and increased productivity of cattle.</p> <p>The use of integrated land use planning for agricultural lands of LLP Saryagash will provide a better management tool for the LLP management in the long-run and will serve as a sample for replication by other agricultural production firms and farms in the target district and in Kostanai oblast.</p> <table border="1"> <thead> <tr> <th>Indicator</th> <th>Baseline</th> <th>End-of-Project Target</th> </tr> </thead> <tbody> <tr> <td>Area under monoculture</td> <td>15,979 ha</td> <td>11,979 ha</td> </tr> <tr> <td>Area under forage crops</td> <td>7,906 ha</td> <td>11,906 ha</td> </tr> <tr> <td>Area under green fallow</td> <td>0 ha</td> <td>4,000 ha</td> </tr> <tr> <td>Increased humus content in soil</td> <td>2%</td> <td>increase by 10%</td> </tr> <tr> <td>Wheat yield</td> <td>8.9 hwt/ ha</td> <td>12 hwt/ ha</td> </tr> <tr> <td>Ameliorated pasture, hayfields</td> <td>0 ha</td> <td>2,000 ha</td> </tr> <tr> <td>Pastures under seasonal rotation</td> <td>0 ha</td> <td>10,000 ha</td> </tr> </tbody> </table>			Indicator	Baseline	End-of-Project Target	Area under monoculture	15,979 ha	11,979 ha	Area under forage crops	7,906 ha	11,906 ha	Area under green fallow	0 ha	4,000 ha	Increased humus content in soil	2%	increase by 10%	Wheat yield	8.9 hwt/ ha	12 hwt/ ha	Ameliorated pasture, hayfields	0 ha	2,000 ha	Pastures under seasonal rotation	0 ha	10,000 ha
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Monitoring of demonstration project	Monitoring of project activities will be conducted twice a year, in spring and autumn. Members of LLP Saryagash, residents of the village, representatives of other agricultural farms/firms operating in the area, district agricultural department of district akimat and UNDP-GEF experts will be engaged in monitoring project progress and results.																										

Threats to agricultural landscapes and land resources	<p>The main cultivated crop is wheat, which occupies 15,979 ha. A four-field crop rotation system is used by LLP Saryagash: 1-2-3 fields are under wheat; and the 4<sup>th</sup> field – fallow. But fallow lands fail to regain productivity over a period of one growing season. Besides, no other crops except for wheat are used in the crop rotation system, and wheat is well known for its ability to drain beneficial nutrients from soil over time. As such, the arable land fertility decreases each year leading to the reduction of wheat yield.</p> <p>Thirty years ago pastures now owned by LLP Saryagash used to be cultivated through seeding Agropyron. Over the course of time pastures have degraded as no cultivation was performed. The productivity of pastures is now 1.5 hwt/ha, which is not much higher than that of natural hayfields. Low productivity of pastures contributes to low productivity of cattle grazing on these lands.</p>
Proposed demonstration activities and expected costs	<ol style="list-style-type: none"> <li>1. Introduction of a six/seven-field crop rotation system by adding to the system green fallow and forage lands planted with such forage crops as agropyron, lucerne, sweet clover, sainfoin, sorghum and corn. The GEF funding will cover the costs of seeds in the amount of \$38,888. The agricultural department of Denisovsky district akimat is expected to provide a subsidy of \$200,000 for green fallow. LLP Saryagash will cover the cost of fuels and lubricants, labor, repair, etc. in the amount of \$177, 778.</li> <li>2. Amelioration of hayfields and pasturelands through seeding of agropyron, sweet clover, sainfoin, etc. on 2,000 ha of degraded pastures. The GEF will finance the purchase of perennial grass seeds in the amount of \$38,888. The agricultural department of Denisovsky district akimat is expected to provide a subsidy of \$100,000. LLP Saryagash will cover the cost of fuels and lubricants, labor, repair, etc. in the amount of \$80,670.</li> <li>3. Introduction of a pasture rotation scheme and establishment of basic herder infrastructure in distant pastures. The project will repair and construct shelters for herders, fenced areas for cattle resting. And GEF grant is expected to cover these costs totaling \$10,224. LLP Saryagash will purchase construction materials and construct a watering point for grazing cattle, cover man-hours, fuels and lubricants costs. LLP contribution will total \$50,000.</li> <li>4. Development of an integrated land use plan covering lands of LLP Saryagash with replication potential for the Denisovsky district and Kostanai oblast. GEF will finance contracting of land use and SLM experts while LLP Saryagash will finance consultations with experts and local authorities. The estimated cost of this exercise is \$4,000, of which GEF will finance 50%.</li> </ol> <p>Grand Total: GEF grant - \$90,000, LLP Saryagash – \$310,448, Agricultural department of Denisovsky akimat – \$300,000.</p>
State any negative environmental or socio-economic effects, and ways to mitigate them in the project	This demonstration project is expected to produce no negative environmental or socio-economic effects.
Economic benefits for local people	Introduction of green fallow and forage lands will lead to improved soil fertility and wheat yield growth by 20% in these areas, resulting in increased income. The seasonal pasture rotation and improvement of cultivated pastures will result in increased livestock productivity by 15%.
Involvement of women in project	The project secures equal opportunities and rights both for men and

implementation and benefits for women as a result of project implementation	women. The difference will be in work distribution only: men will be mostly engaged in field work and women will be involved in the organization of workshops and agricultural products processing. Both men and women will be beneficiaries of the project.
Involvement of vulnerable population groups	The project will provide support to labor veterans and large families.
Involvement of youth and school children (if envisaged by the project)	The youth in rural areas will be actively involved in field works and livestock grazing.
Training in monitoring for land users, local communities and research institutes	The project will conduct monitoring of outcomes of pilot projects twice a year engaging representatives of akimats, land users, local communities. The project will organize short-term training sessions for these target groups on how to track progress of pilot project indicators. Also, the project will employ a method of field visits for practical demonstration of achieved results and progress. The results of project activity will be delivered to the agricultural department and the KazAgroInnovation extension center in Kostanai Oblast for further dissemination. The project will also engage thematic research institutes for capacity building of local authorities, land users in land degradation monitoring. In particular, the project will recruit the staff of the Astana-based knowledge dissemination center of JSC "KazAgroInnovation".

Pilot project 7: Sustainable management of agricultural landscapes by expanding organic agriculture in the Kostanai Oblast

*Goal:* Reduce land degradation through expansion of organic agriculture, gradual substitution of wheat monoculture and improvement of arable land fertility through green fallow and cultivation of forage crops

*Expected results:* Improved soil fertility and reduced degradation of agricultural landscapes

Location (administrative district)	Kostanai Oblast, Feodorovsky district																	
Area (hectares)	18,304 ha (excluding pastures)																	
Land owner/land user (name, surname, telephones)	<p>"Galant LLP", Ablay Urazbayev +77771527226, 8(71442)21560, <a href="mailto:gallant.2004@mail.ru">gallant.2004@mail.ru</a>, arable land – 6,566 ha, pastures – 1,245 ha</p> <p>"Kuzovaya" CF (Country Farm), Vladimir Zaverukha +77774160060, <a href="mailto:metelica_kz@mail.ru">metelica_kz@mail.ru</a>, arable land – 1,445 ha, pastures - 26 ha</p> <p>"Bekseitov" CF, Aydarbek Bekseitov +77773938650, <a href="mailto:bekseitov.a@mail.ru">bekseitov.a@mail.ru</a>, arable land – 4,665 ha, pastures - 662 ha</p> <p>"Kovrizhnykh" CF, Oleg Kovrizhnykh +77774431560, arable land – 3,600 ha, pastures – 1,480 ha</p> <p>"Quarta" CF, Anatoly Kazakevich +77054449162, arable land – 2,028 ha, pastures – 333 ha</p>																	
Expert support and consulting organization	"Organic Agricultural Association" Vadim Lopukhin +77773045068, <a href="mailto:aoz-rk@mail.ru">aoz-rk@mail.ru</a>																	
Nature and climatic zone	Dry steppe																	
Description of project site: the area of arable land, pastures, hay fields, number of livestock, fodder grounds, etc.)	<p>Out of 546,200 ha of agricultural lands in the Feodorovsky district, arable lands occupy 445,700 ha and pastures – 100,300 ha. 1,150 land users operate in the district. The Feodorovsky district is particularly known for its wheat production. As a rule, a five-field crop rotation system is used: 1–2 wheat, 3–4 – flax, 5 – black fallow.</p> <p>Five agricultural farms have been proposed to implement the project. These enterprises have an international certificate of organic producers and own 18,304 ha of arable land used for grain, grain-and-forage and oil-bearing crops cultivation. Forage lands and pastures occupy 3,746 ha. Pastures and lands not planted with cash crops are used as hayfields. 350 cows, up to 420 sheep and goats and 80 horses graze in these lands. About 700-800 tons of rough feed, 300-500 tons of fodder is stocked annually. In drought years, farmers experience shortages of livestock fodder.</p>																	
Significance in terms of SLM	<p>The project will introduce new practices that improve soil fertility, restore agricultural landscapes including meadow and pasture ecosystems through the expansion of areas under forage crops and introduction of green fallow. Green fallow—known as green fertilizers—will be plowed during blossoming resulting in increased soil fertility and productivity of subsequent cash crops such as wheat. These practices will be tested in lands of 5 agricultural farms with potential for further replication by other farms.</p> <table border="1"> <thead> <tr> <th>Indicator</th> <th>Baseline</th> <th>End-of-Project Target</th> </tr> </thead> <tbody> <tr> <td>Area under green fallow</td> <td>0 ha</td> <td>500 ha</td> </tr> <tr> <td>Area of regrassed pastures</td> <td>0 ha</td> <td>100 ha</td> </tr> <tr> <td>Humus content of arable land</td> <td>estimated at project start</td> <td>Increase by 8%</td> </tr> <tr> <td>Increase in crop yield</td> <td>wheat yield - 10 hwt/ha; hay yield - 8 hwt/ha</td> <td>wheat yield - 12 hwt/ha; hay yield - 20 hwt/ha</td> </tr> </tbody> </table>			Indicator	Baseline	End-of-Project Target	Area under green fallow	0 ha	500 ha	Area of regrassed pastures	0 ha	100 ha	Humus content of arable land	estimated at project start	Increase by 8%	Increase in crop yield	wheat yield - 10 hwt/ha; hay yield - 8 hwt/ha	wheat yield - 12 hwt/ha; hay yield - 20 hwt/ha
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Monitoring of demonstration project	Monitoring of project activities will be performed twice a year, in spring and autumn, by members of participating farms, the Organic Agricultural Association, Kostanai Agricultural Research Institute and UNDP-GEF experts.																	
Threats to agricultural landscapes and land resources	Cultivation of monoculture (wheat in particular) leads to removal of useful elements from the soil, loss of humus and degradation of lands. Insufficient crop rotation and planting crops that further aggravate soil structure and contribute to continuous degradation of agricultural lands.																	

	Since monoculture has been broadly cultivated in the target area, natural vegetation remains only in hollows occupied by birch and aspen wood patches. The vegetation around hollows is represented by a rich variety of mixed grasses: cereal, wheat-grass, etc. These valuable ecosystems can only be conserved if agricultural landscapes are managed in a sustainable manner with least impact on the diversity of these agricultural systems.
Proposed demonstration activities and expected costs	<ol style="list-style-type: none"> <li>1. Tillage of black fallow lands to prepare for planting of forage crops (includes application of organic fertilizers, 3 times disking and deep soil loosening). The GEF grant will cover the costs of fertilizer acquisition in the amount of \$25,140. Participating agricultural farms will contribute with agricultural machinery, fuels and lubricants, agrochemical examination of lands with estimated costs of \$216,800.</li> <li>2. Spring tillage and sowing of forage crops (mixing sweet clover, lucerne and agropyron) for green fallow in the area of 500 ha. The GEF funding of \$60,775 will be used to purchase seeds. Agricultural farms will cover the costs of agricultural machinery, labor, fuels and lubricants totaling \$59,515.</li> <li>3. Tending the crops in the 1<sup>st</sup> and subsequent years of grass stand including deep soil cutting and application of organic fertilizers. Agricultural farms will contribute \$69,400 to cover the costs of organic fertilizers, agricultural machinery, fuels and lubricants, and man/hr.</li> <li>4. Plowing green manure into soil. All costs associated with implementation of this activity will be covered by participating agricultural farms and will total \$19,800.</li> <li>5. Sharing of experience and lessons learned. The project will organize field days jointly with the Kostanai Agricultural Research Institute, publish informational materials and booklets that summarize generated lessons learned and experience, place project related publication in mass media, and film a video capturing key highlights of project achievements. The GEF grant will cover the costs totaling \$4,085.</li> </ol> <p>Grand Total: GEF – \$90,000; 5 agricultural farms – \$365,515.</p>
State any negative environmental or socio-economic effects, and ways to mitigate them in the project	This demonstration project is expected to produce no negative environmental or socio-economic effects.
Economic benefits for local people	Arable land fertility will improve leading to growth in grain yields despite the reduced grain crop area. The project will contribute to the production of sufficient amount of forage fodder leading to enhanced productivity of livestock and reduced pressure on pastures around the rural settlement. To improve agricultural land quality, the population of the district working on land, mainly in country farms, will use this experience and will also grow forage grasses to improve soil quality. It will be favorable for the transition from monoculture cultivation to forage crop growing and diversification in crop cultivation. At the end of the project the population will have high-quality forages for livestock breeding development. The economic effect will be calculated at the end of the project.
Involvement of women in project implementation and benefits for women as a result of project implementation	The project considers all aspects of gender approach: equal rights of men and women during production and distribution of products. Women constitute 40% in 5 participating agricultural farms and will take an active part in project implementation as direct beneficiaries.
Involvement of vulnerable population groups	The project beneficiaries will provide support to vulnerable population groups such as disabled people, pensioners, large families living in the area.
Involvement of youth and school children (if envisaged by the project)	Young people living in target rural areas will actively participate in field works during sowing and harvesting. Project implementers will engage college/institute students as seasonal workers.
Training in monitoring for land	The project will conduct monitoring of achieved outcomes of pilot projects twice a

<p>users, local communities and research institutes</p>	<p>year engaging representatives of akimats, land users, local communities, the Organic Agricultural Association and the Kostanai Agricultural Research Institute. The project will organize short-term training sessions for these target groups on how to track progress of pilot project indicators. Also, the project will employ a method of field visits for practical demonstration of achieved results and progress. The results of project activity will be delivered to the agricultural department and the KazAgroInnovation extension center in Kostanai Oblast for further dissemination. The project will also engage thematic research institutes for capacity building of local authorities, land users in land degradation monitoring. In particular, the project will recruit the staff of the Kostanai knowledge dissemination center of JSC “KazAgroInnovation” and the Kostanai Agricultural Research Institute.</p>
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## 5. Kzyl Orda Oblast (1 site totaling 1,300 ha)

Pilot project 8: Combating degradation of irrigated arable lands under rice production systems through introduction of soil and water saving technologies in Kzyl Orda oblast

*Goal:* Restoration and improvement of inundated rice fields productivity, and efficient use of water resources to prevent secondary salinization and erosion of arable lands

*Expected results:*

- Reduction of areas under monoculture.
- Expansion of forage crop rotation.
- Development and deployment of an automated system for supply and accounting of irrigation water in inundated rice fields.

Location (administrative district)	Kzyl Orda region, Kzyl Orda city																									
Area (hectares)	1,300 ha																									
Land owner/land user (name, surname, telephones) Expert support and consulting organization	Kazakh Research Institute of Rice Cultivation named after I. Zhakhayev, LLP Kzyl Orda Agricultural Extension Center of JSC “KazAgroInnovation”, Zhanuzak Baimanov, 8 701 736 32 83, 8 705 241 75 13, <a href="mailto:zhanuzak@mail.ru">zhanuzak@mail.ru</a>																									
Nature and climatic zone	Desert																									
Description of project site: the area of arable land, pastures, hay fields, number of livestock, forage lands, etc.)	The pilot farm of the Institute of Rice Cultivation occupies 1,300 ha of irrigated lands used for rice cultivation. The pilot farm is used to test different technologies for cultivation of rice varieties, crop rotation, water saving practices, etc. Successful practices are then disseminated to farmers via training and printed materials of the Kzyl Orda Agricultural Extension Center of JSC “KazAgroInnovation”.																									
Significance in terms of SLM	<p>By using the new automated system for the delivery, accounting and discharge of irrigation water in rice production, the project will considerably reduce the consumption of irrigated water, preventing unnecessary inundation of rice fields and subsequent water erosion and secondary salinization.</p> <p>The project focuses on improvement of irrigated arable land fertility and restoration of abandoned crop fields through expanding lucerne and forage (oats, barley, corn) crop rotation areas.</p> <table border="1"> <thead> <tr> <th>Indicator</th> <th>Baseline</th> <th>End-of-Project Target</th> </tr> </thead> <tbody> <tr> <td>Restored area of degraded arable land</td> <td>0 ha</td> <td>200 ha</td> </tr> <tr> <td>Areas under lucerne and other forage crops</td> <td>300 ha</td> <td>500 ha</td> </tr> <tr> <td>Increased humus content in soil</td> <td>to be estimated at project start</td> <td>by 10 %</td> </tr> <tr> <td>Rice yield</td> <td>40 hwt/ha</td> <td>45 hwt/ha</td> </tr> <tr> <td>Installed equipment for water delivery to inundated rice fields and its accounting</td> <td>0 units</td> <td>200 units</td> </tr> <tr> <td>Installed equipment for water discharge from inundated rice fields and its accounting</td> <td>0 units</td> <td>200 units</td> </tr> <tr> <td>Consumption of irrigated water</td> <td>29,500 m<sup>3</sup>/ha</td> <td>23,000 m<sup>3</sup>/ha</td> </tr> </tbody> </table>		Indicator	Baseline	End-of-Project Target	Restored area of degraded arable land	0 ha	200 ha	Areas under lucerne and other forage crops	300 ha	500 ha	Increased humus content in soil	to be estimated at project start	by 10 %	Rice yield	40 hwt/ha	45 hwt/ha	Installed equipment for water delivery to inundated rice fields and its accounting	0 units	200 units	Installed equipment for water discharge from inundated rice fields and its accounting	0 units	200 units	Consumption of irrigated water	29,500 m <sup>3</sup> /ha	23,000 m <sup>3</sup> /ha
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Consumption of irrigated water	29,500 m <sup>3</sup> /ha	23,000 m <sup>3</sup> /ha																								
Monitoring of demonstration project	The project progress will be monitored twice a year, in spring and autumn, by members of the Kazakh Research Institute of Rice Cultivation named after I.Zhakhayev, representatives of the agricultural department of Kzyl Orda akimat, rice producers from neighboring areas and UNDP-GEF experts.																									
Threats to agricultural	Rice production faces accelerating agronomic problems including the salinization of																									

landscapes and land resources	irrigated fields. In particular, most of the rice paddy fields exhibit leaching out of salts during the irrigation period. Rice yields are adversely affected by the remaining soil salinity, deep ponding water and insufficient drainage capacity. Salt accumulation has a tendency to increase with cropping years and is associated with groundwater depth that becomes shallower at the lower parts of the irrigation systems, adversely affecting the crop growth in most fields.
Proposed demonstration activities and expected costs	<ol style="list-style-type: none"> <li>1. Installations for the delivery, discharge and accounting of irrigation water in rice field systems designed and tested by the experts of the Kzyl Orda Research Institute for Rice Cultivation. The GEF funding will be used to produce 150 units of water regulating devices at the cost of \$15,000. The Research Institute for Rice Cultivation will pay for the production of 50 units, contributing \$5,000.</li> <li>2. Installation of an automated system for delivery and accounting of irrigation water in inundated fields covering an area of 500 ha. Total costs are estimated at \$8,300 with GEF contribution totaling \$2,300. The Rice Research Institute and the agricultural department of the Kostanai Oblast will contribute \$6,000.</li> <li>3. Expansion of lucerne and forage crop rotation areas to 500 ha to improve fertility of irrigated lands impacted by secondary salinization. The GEF funding will be used to purchase lucerne seeds and forage (corn, oats, barley) crop seeds in the amount of \$49,700. The agricultural department will provide a subsidy \$17,000. The contribution of the Rice Research Institute will total \$130,404 covering the costs of seeds, agricultural equipment, man-hours, herbicide application, fuels and lubricants</li> <li>4. Dissemination of lessons learned and experience. The project will document lessons learned and experience and disseminate to rice producers in Kzyl Orda and Almaty Oblast by publishing booklets, brochures, and leaflets. Also, the project will organize field visits for interested rice producers to gain first-hand experience in application of the water delivery, accounting and discharge devices and effects of tested crop rotation system in rice production. Total costs are estimated at \$9,000, of which GEF will contribute \$3, 000.</li> </ol> <p>Grand Total: GEF – \$70,000; Research Institute for Rice Cultivation – \$141,427; Agricultural department of Kostanai Oblast Akimat– \$23,000.</p>
State any negative environmental or socio-economic effects, and ways to mitigate them in the project	This demonstration project is expected to produce no negative environmental or socio-economic effects.
Economic benefits for local people	The introduction of devices for the delivery, accounting and discharge of irrigation water will reducing water consumption in rice cultivation by about 20%, thus reducing payments for water use, decreasing soil salinization, increasing rice yield. The economic effect will be calculated at the end of the project.
Involvement of women in project implementation and benefits for women as a result of project implementation	<p>The project secures equal opportunities and rights for both men and women. The project will implement the following activities to ensure sufficient engagement of women in demonstration projects and generation of benefits:</p> <ul style="list-style-type: none"> <li>• Assist in improving cooperation of women in rural okrugs with non-governmental women organizations in the region and the oblast and carrying out joint "round tables" and seminars on additional fund raising for development of small business among women of villages.</li> <li>• Organize training courses for farmers including women on agricultural technologies and practices.</li> <li>• Engage women from women's organizations in monitoring and evaluation of pilot projects, and also in dissemination of good practices in neighboring rural okrugs.</li> </ul>

	<ul style="list-style-type: none"> <li>• Include activities on improving monitoring and evaluation of gender aspects in the project's annual work plans.</li> </ul>
Involvement of vulnerable population groups	The project will provide support to labor veterans and large families.
Involvement of youth and school children (if envisaged by the project)	Young people residing in the area and young staff of the Kazakh Research Institute of Rice Cultivation named after I.Zhakhayev LLP including the Kyzyl Orda Extension Center will actively participate in field works.
Training in monitoring for land users, local communities and research institutes	The project will conduct monitoring of outcomes of pilot projects twice a year engaging representatives of akimats, rice producers, local communities, the Kazakh Research Institute of Rice Cultivation and the Kyzylorda Extension Center. The project will organize short-term training sessions for these target groups on how to track progress of indicators. Also, the project will use field visits for practical demonstration of achieved results and progress. The results of project activity will be delivered to the agricultural department of the Kzyl Orda Oblast for further dissemination. Project results will also be incorporated in training of the Kyzylorda Extension Center of JSC "KazAgroInnovation" for capacity building of local authorities, rice producers and other stakeholders.

**6. North Kazakhstan Oblast (1 site totaling 21,000 ha)**

Pilot project 9: Conservation and improvement of soil fertility and expansion of forage supply through cultivation of grain legume and forage crops in the steppe zone

*Goal:* Conservation and restoration of soil fertility through application of conservation cropping system with elements of crop rotation farming.

*Expected results:*

- Conservation and improvement of soil fertility through sowing grain legume.
- Increase of forage production through the reduction of wheat crop areas.
- Efficiency assessment of forage crop rotation (compared to wheat crop and fallow land rotation vs wheat monoculture) based on yield data, change in the density of a root soil layer, content of nutrients and dynamics of the nutrition process

Location (administrative district)	North Kazakhstan Oblast, Akkaiyn district, Shagalaly village																				
Area (hectares)	21,000 ha																				
Land owner/land user (name, surname, telephones)	North Kazakhstan Agricultural Experimental Station LLP Bilgibay Kanaffin. tel.: 8-715-32-23-5-47; e-mail: 87153251517@mail.ru.																				
Nature and climatic zone	Steppe, steppe with patches of wood areas																				
Description of project site: the area of arable land, pastures, hay fields, number of livestock, forage lands, etc.)	The North Kazakhstan Agricultural Experimental Station LLP occupies an area of 21,644 ha that includes grain crop fields of 12,254 ha (wheat - 10,589 ha, barley – 1,460 ha, oats - 205 ha), legume grain - 135 ha, oil-bearing crops - 2,101 ha, and hayfields – 3,224 ha. It employs 383 people. The population of the rural okrug consists of 1,621 people, 560 households, of which 439 households own 963 cows. The experimental farm station has 1,500 dairy and meat cows. Every year the farm harvests over 2,000 tons of hay as livestock fodder. The enterprise provides fodder to its employees and the population of the rural okrug: hay - over 700 tons, straw – 220 tons, grain forage – 400 tons.																				
Significance in terms of SLM	<p>By using the conservation cropping approach with elements of crop rotation (grain legume and forage crops) in wheat production, the project will slow down soil erosion, improve the structure and fertility of target lands, suppress weed growth, improve the access of cultivated crops to moisture and nutrients, as well as increase the productivity of all crops while maintaining ecological integrity of this agricultural system. The increase in forage supply volumes will make available forage for country farms and households in the target district.</p> <table border="1"> <thead> <tr> <th>Indicator</th> <th>Baseline</th> <th>End-of-Project Target</th> </tr> </thead> <tbody> <tr> <td>Monoculture (wheat crop) areas</td> <td>10,590 ha</td> <td>10,190 ha</td> </tr> <tr> <td>Forage crop areas</td> <td>1,800 ha</td> <td>2,200 ha</td> </tr> <tr> <td>Improvement of soil fertility</td> <td>-</td> <td>by 0.5%</td> </tr> <tr> <td>Increase in forage crop yield</td> <td>-</td> <td>by 2 hwt/ ha</td> </tr> <tr> <td>Reduced costs of forage procurement through reduction of primary costs associated with forage procurement and yield increase</td> <td>-</td> <td>by 20%</td> </tr> </tbody> </table>			Indicator	Baseline	End-of-Project Target	Monoculture (wheat crop) areas	10,590 ha	10,190 ha	Forage crop areas	1,800 ha	2,200 ha	Improvement of soil fertility	-	by 0.5%	Increase in forage crop yield	-	by 2 hwt/ ha	Reduced costs of forage procurement through reduction of primary costs associated with forage procurement and yield increase	-	by 20%
Indicator	Baseline	End-of-Project Target																			
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Improvement of soil fertility	-	by 0.5%																			
Increase in forage crop yield	-	by 2 hwt/ ha																			
Reduced costs of forage procurement through reduction of primary costs associated with forage procurement and yield increase	-	by 20%																			
Monitoring of demonstration project	Monitoring of project progress will be conducted twice a year in spring and autumn by designated employees of the North Kazakhstan Agricultural Experimental Station LLP, experts of the Barayev Grain Research and Production Center, and UNDP-GEF experts.																				
Threats to agricultural	Being a wheat growing region, the target area faces significant losses of humus																				

landscapes and land resources	resulting from inefficient use of land, and, most importantly, from neglecting scientifically justified land cultivation systems.
Proposed demonstration activities and expected costs	<ol style="list-style-type: none"> <li>1. Organization of a crop rotation system (sweet clover plus oat for 2 years followed by barley) to move away from monoculture cultivation covering the area of 10,590 ha including agrochemical studies, land preparation works, application of fertilizers and sowing. The experimental station will cover all costs related to implementation of this activity totaling \$103,680.</li> <li>2. Tending and protection of crops. The experimental station will perform all works related to implementation of this activity and will cover the costs of agricultural equipment, fuels and lubricants, application of fertilizers. Estimated budget is \$64,600.</li> <li>3. Harvesting and procurement of fodder. For timely procurement of high-quality fodder, the project will purchase modern high-performance forage equipment including a pickup press and a self-loading cart for hale bales. The GEF grant will cover these costs in the amount of \$84,965. The experimental station will contribute with equipment for haymaking, fuels and lubricants, transportation. The estimated budget is \$23,730.</li> <li>4. Plowing green manure in the soil to increase soil fertility and yield output. The experimental station will cover the costs of agricultural equipment, fuels and lubricants and man-hours totaling \$43,000.</li> <li>5. Barley sowing, tending, harvesting and fodder procurement is estimated at \$50,300 and these costs will be co-financed by the experimental station.</li> <li>6. Demonstration and dissemination of project results by means of field days. The project will use field events to demonstrate effectiveness of the forage crop rotation system and its contribution to improved land fertility and yield output. The project will produce printed materials for dissemination in the target area and outside. The GEF grant of \$5,000 will be used to cover these costs.</li> </ol> <p>Grand Total: GEF - \$89,965; the North Kazakhstan Agricultural Experimental Station LLP – \$285,110.</p>
State any negative environmental or socio-economic effects, and ways to mitigate them in the project	This demonstration project is expected to produce no negative environmental or socio-economic effects.
Economic benefits for local people	SLM practices will conserve and improve soil fertility in the target area at the same time reducing the costs of fodder harvesting and procurement. Participating agricultural farms can use positive results and experience for subsequent application in other administrative districts of North Kazakhstan Oblast. Residents of the Shagalalyn rural okrug will be provided with cheaper and higher quality fodder which in turn will lead to greater productivity of household cattle and possibly increase of cattle numbers.
Involvement of women in project implementation and benefits for women as a result of project implementation	The project grants equal opportunities and rights to both men and women. Women are more involved in livestock breeding, both in the enterprise and households. The improvement of forage supply for reasonable prices will contribute to development of livestock breeding and family businesses as well as creation of jobs at the enterprise and in agricultural farms of the Shagalala rural okrug.
Involvement of vulnerable population groups	Unemployed residents of the rural okrug including <i>Oralmans</i> will be involved in temporary seasonal works. The workers will be provided with forage (hay) for their households.
Involvement of youth and school children (if envisaged by the project)	Young research workers of the North Kazakhstan Agricultural Experimental Station LLP will take part in project implementation (average age - 31 years). The project also envisages engagement of agrarian students of higher educational institutions and agricultural colleges to obtain field experience and training.
Training in monitoring for land	The project will conduct monitoring of outcomes of pilot projects twice a year

users, local communities and research institutes	engaging representatives of akimats, farmers, local communities, representatives of the North Kazakhstan Agricultural Experimental Station and the Barayev Grain Research and Production Center. The project will organize short-term training sessions for these target groups on how to track progress of pilot project indicators. Also, the project will use field visits for practical demonstration of achieved results and progress. Project results will also be incorporated in training activities of the Shortandy Extension Center of JSC “KazAgroInnovation” for capacity building of local authorities, grain producers and other stakeholders.
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### ANNEX 3: RISK ANALYSIS

Risks/ Assumptions	Level	Mitigation approach
Political support for integrating SLM principles into the agricultural sector becomes weak, jeopardizing further replication of SLM practices on the ground	Medium	The project has been initiated with active support, strong commitment and good understanding of the needed changes on the part of national and local authorities. A stated objective of the government is to boost the agricultural sector as part of the strategy for economic diversification. To realize this objective, the government needs to strengthen long-term competitiveness of the agricultural sector, which, in turn, needs to be grounded in SLM principles and practices. In its capacity building and awareness-raising activities, the project will continue to emphasize this link, while show-casing the successes of the demonstration projects as a means to realizing the objective of sustainable, long-term agricultural competitiveness.
Central and local governments are not willing to engage local stakeholders in land use planning	Medium	There is an ongoing process of decentralization in the country such that the responsibility for land use planning rests increasingly with local authorities. Thus conceptual support for the greater involvement of local stakeholders in land use planning is there. However, the problem has been one of local capacities (institutional and individual) keeping up with the pace of decentralization. The project strategy is grounded in decentralization and bottom-up planning. Under Output 1.1, the project will set up rayon-level, inter-sectoral committees consisting of land management, agricultural and environmental units of oblast, district and rural okrug akimats, relevant government organizations and institutions, and associations or unions of farmers. The committee will represent a platform to facilitate and engage in stakeholder consultations during the pilot process of integrated land use planning. Output 1.4 will specifically develop capacities and awareness of agricultural land users, the general public, akimats and training agents in SLM principles and practices. Through these measures, the project will minimize this risk.
Climate change-induced extreme seasonal variations or emerging new threats affect pilot projects/ sites in ways that undermine the successes of the demonstration activities	Medium	The emphasis of the project on developing ILUPs whose core focus is maintaining ecosystem services of agricultural landscapes and demonstrating SLM practices is a means to improving resilience and the ability to apply adaptive management. While it is possible that some seasonal variations or new threats could impact short term progress at demonstration sites, the processes and capacities put in place by the project will enable stakeholders to adapt land use practices to the changing situation on the ground. Farmers applying SLM methods are likely to be better prepared for seasonal variations. The project will build the adaptability of all levels (from land users, local authorities, up to national institutions) to respond to changing circumstances and threats.
Building of sufficient capacity and practical know-how within essential state institutions and local authorities will take too long to allow project sustainability	Medium	One of the main lessons learned by UNDP and other development partners in Central Asia in the last 15 years is that to change and reform existing institutions and mind-sets is an extremely time consuming process if it is to be achieved effectively. Bearing this in mind, the project has chosen a 5 year time-frame for the systematic implementation of the various project activities, even though this is a medium size project.
Current political commitment to agro-environmental incentives stalls or declines	Medium	While agro-environmental incentives are terra nova for the government, small steps have been taken such as the limited subsidies/incentives to motivate farmers to shift to less intensive agricultural practices and to protect land resources (e.g. crop rotation, forage production, watering

Risks/ Assumptions	Level	Mitigation approach
		<p>points at distant pastures) in the Agribusiness 2020 program. Thus, the intention is there but the problem lies in the design and actual implementation of such subsidies. And these are the issues that the project will address during implementation Furthermore, to ensure that the proposed agro-environmental incentive scheme does not develop as a parallel process, but rather is mainstreamed into the existing process and procedures for regular agricultural subsidies, under Output 1.3, the project—jointly with rayon and oblast akimats—will devise proposals for agro-environmental subsidies as part of the regular exercise performed by local authorities and submit to MOA for consideration and approval. Further, measures implemented at the pilot sites will demonstrate the feasibility of SLM measures that simultaneously improve productivity and reduce adverse environmental impacts creating a demand from such subsidies among agricultural land users.</p>
<p>Legislative changes required to realize the project objective are not agreed to nor carried through in a timely manner</p>	<p>Low</p>	<p>Output 2.1 of the project will set up a high-level inter-agency Working Group with expected members to include representatives from Departments of Green Economy, and Environmental Monitoring &amp; Information of the Ministry of Energy, Land Management Committee and Budget Planning Department of the Ministry of National Economy, Crop and Livestock Production Departments of the Ministry of Agriculture, Committees for Water Resources, and for Veterinary Control &amp; Oversight of the Ministry of Agriculture, JSC KazAgroInnovation, JSC KazAgroMarketing. This Working Group will oversee the introduction of legislative changes. The mandate and membership of the Working Group will help ensure that relevant government institutions are active participants and champions of necessary legislative changes.</p>

#### ANNEX 4: TERMS OF REFERENCE

##### National Project Manager (NPM)/Project Technical Oversight

The National Project Manager (NPM)/Project Technical Oversight will be a locally recruited national. Selection is based on an open competitive process. He/ She will be responsible for the overall management of the project, including the mobilization of all project inputs, supervision of project staff, consultants and sub-contractors. The NPM will be tasked with the day-to-day management of project activities, as well as with financial and administrative reporting. The NPM's prime responsibility is to ensure that the project produces the planned outputs and achieves the planned indicators and targets by undertaking necessary activities specified in the project document to the required standard of quality and within the specified constraints of time and cost. This will require linking the indicators to the work plan to ensure RBM. The NPM will report to the UNDP-Kazakhstan Energy & Environment Officer (or other duly designated UN officer) for all of the project's substantive and administrative issues. The NPM will report on a quarterly basis to the Project Executive Group. The NPM will be responsible for meeting government obligations under the project and will perform a liaison role with the Government, UNDP and other UN Agencies, NGOs and other project partners. 15% of the NPM's time is to be allocated to purely managerial tasks; 85% of time to providing technical oversight and inputs to successfully realize the various activities under Outcomes 1 and 2 of the project. Chief duties and responsibilities are as follows:

- Supervise and coordinate the production of project outputs, as per the project document;
- Liaise with UNDP, MOA, KazAgroInnovation and KazAgroMarketing and other relevant government agencies, and all project partners, including donor organizations and NGOs for effective coordination of all project activities;
- Ensure the timely and effective implementation of all components of the project;
- Ensure a results-based approach to project management – this means the NPM *must* understand the project's results framework indicators and respective indicator targets and verify these at project inception together with UNDP and any additional expertise. These indicators must then be linked on a daily basis to the project's work, NOT simply reported on once a year for the PIR Process;
- Mobilize all project inputs in accordance with UNDP procedures for nationally executed projects;
- Coordinate the recruitment and selection of project personnel;
- Coordinate and supervise the work of all consultants and sub-contractors, ensuring the timely delivery of expected outputs, and effective synergy among the various sub-contracted activities;
- Prepare Annual Work Plans in advance of each successive year and submit them to the Project Executive Group for approval;
- Prepare financial reports, as required by the Project Board and UNDP;
- Work with UNDP to complete the annual project implementation review (PIR) reporting exercise;
- Facilitate administrative backstopping to subcontractors and training activities supported by the Project;
- Oversee and ensure timely submission of all project reports, including technical reports, quarterly financial reports, and other reports as may be required by UNDP, GEF, and other oversight agencies;
- Disseminate project reports and respond to queries from concerned stakeholders;
- Report progress of project to the steering committee, and ensure the fulfilment of steering committee directives;
- Carry out regular inspections of all project sites and activities; and finally
- Provide technical oversight and inputs to successfully realize the various activities under both outcomes/ components of the project.

### Qualifications

- Proven management expertise – must be able to fluidly handle the political, technical, and people management challenges that will face the NPM on a daily basis. This is first and foremost the most important qualification.
- A university degree (MS or PhD) in Management or Environmental Sciences;
- At least 10 years of experience in natural resource management or project/programme management;
- At least 5 years of project/programme management experience;
- Working experience with ministries, national institutions, local government, research institutes in Kazakhstan;
- Ability to effectively coordinate a large, multi-stakeholder project;
- Ability to administer budgets, train and work effectively with counterpart staff at all levels and with all groups involved in the project;
- Strong drafting, presentation and reporting skills;
- Strong computer skills, in particular mastery of all applications of the MS Office package and internet search;
- Strong knowledge of land degradation issues in Kazakhstan, including the political, institutional and socio-economic contexts;
- Working knowledge of English.

### Administrative/Finance Assistant (AFA)

The Administrative and Finance Assistant (AFA), will be a locally recruited national selected based on an open competitive process. He/She will report to National Project Manager (NPM) and assist the NPM in the coordination of the UNDP-GEF project. He/She will have two roles: as an Administrative Assistant and as an Accountant.

As an Administrative Administrator, he/she will:

- Provide assistance in the operational management of the project according to the project document and the NEX procedures.
- Undertake all preparation work for procurement of office equipment, stationery and support facilities as required;
- Provide support in preparing project events, including workshops, meetings (monthly, quarterly and annual), study tours, training, etc., as required.
- Take care of project telephone, fax, and email system;
- Assist with preparation of TORs and contracts for consultants for project activities.

As a Project Accountant, he/she will:

- Prepare quarterly advance requests to get advance funds from UNDP in the format applicable.
- Assist the NPM in project budget monitoring and project budget revision.
- Set up accounting system, including reporting forms and filing system for the project, in accordance with the project document and NEX (NIM) procedures;
- Maintain petty cash transactions. This includes writing of receipts, preparation of payment request form, receipt and disbursement of cash and clearance of advances;
- Prepare cheques and withdraw money from the bank;
- Prepare project financial reports and submit to NPM for clearance and furnish to UNDP as required;
- Enter financial transactions into the computerized accounting system;

- Reconcile all balance sheet accounts and keep a file of all completed reconciliation;
- Check and ensure that all expenditures of projects are in accordance with NEX procedures. This includes ensuring receipts to be obtained for all payments;
- Check budget lines to ensure that all transactions are booked to the correct budget lines;
- Ensure documentation relating to payments are duly approved by the NPM
- Bring any actual or potential problems to the attention of the NPM;
- Follow up on bank transfers. This includes preparing the bank transfer requests, submitting them to the bank and keeping track of the transfers;
- Petty cash to be reviewed and updated ensuring that records are up-to-date;
- Continuously improve system & procedures to enhance internal controls to satisfy audit requirements;
- Ensure that bank statements are collected from the banks at the appropriate time;
- Ensure that bank accounts are reconciled and reported on in a timely manner;
- Prepare monthly bank reconciliation statement, including computation and inclusion of interest income gained into reports;
- Maintain the inventory file to support purchases of all equipment/ assets;
- Undertake other relevant matters assigned by the NPM.

#### Qualifications and requirements

- University degree in accounting, finance or related fields;
- Solid experience of budgeting, planning and reporting on foreign donor funded projects and experience with international auditing requirements;
- Good secretarial skills and good organizational capacity;
- Knowledge in administrative and accounting procedures of the Government and UNDP is an advantage;
- Good computer skills in common word processing (MS Word), spreadsheet (MS Excel), and accounting software;
- Appropriate Kazakh, Russian and English language skills, both spoken and written.

In addition to the National Project Manager and Administrative Finance Assistant, the project will hire a number of other specialists and experts (both national and international) to undertake various tasks necessary for implementing the project effectively and efficiently, and realizing the project objective. These various positions are listed below along with a summary of the tasks each individual is anticipated to undertake. More detailed terms of reference will be developed in consultation with project partners prior to commencing the hiring process.

Expert/ Specialist Title	Average cost/ week	Person weeks	Total per year	Total for 5 years	Key tasks to be performed
<b>National Consultants</b>					
Procurement Specialist	300	156	9,360	46,800	This specialist's time is allocated to Outcome 1. The main tasks are to handle procurement under Output 1.1 related to collection & processing of primary data for territorial landscape level planning; and under Output 1.2 to procure goods and services for implementation of SLM demonstration

Expert/ Specialist Title	Average cost/ week	Person weeks	Total per year	Total for 5 years	Key tasks to be performed
					projects.
Knowledge Management and Outreach Specialist	400	208	16,640	83,200	This specialist's time is divided between Outcomes 1 and 2. The main tasks are to compilation and production of how-to guides and lessons learned under Outputs 1.1, 1.2 and 1.3. S/he will also contribute to Output 1.4 with region-wide outreach campaigns in the form of organized seminars and presentations in the six target oblasts of the project targeting prospective students for agricultural professions. His/her engagement under Outcome 2 will largely relate to awareness raising and outreach campaign on proposed changes to SLM legal framework.
SLM Specialist	400	230	18,400	92,000	70% of the SLM expert's time is allocated to Outcome 1 and 30% of his/her time to Outcome 2. The main tasks are to manage and coordination project activities on landscape level land use planning and implementation of SLM demonstration projects (Outputs 1.1. and 1.2 of Outcome 2). The SLM specialist is expected to contribute to Output 1.3 on the design of most feasible agro-environmental measures and Output 1.4 on selection of topics for capacity building events of the project. Under Outcome 2, the SLM expert will sit on the Inter-Agency WG to report on the on-the-ground experience of the project.
Capacity Building Specialist	400	208	16,640	83,200	This specialist's time is allocated to Outcome 1. The main tasks are to take the lead on Output 1.4 and capacity building activities for integrated land use planning under Output 1.1.
National consultant for mid-term evaluation	1000	4	4,000	4,000	See description under International consultants, but with stronger focus on local issues including the preparation of the mission (arrangements of meetings, logistics, etc.). This specialist's time is allocated between Outcomes 1 and 2.
National consultant for final evaluation	1000	4	4,000	4,000	See description under International consultants, but with stronger focus on local issues including the preparation of the mission (arrangements of meetings, logistics, etc.). This specialist's time is allocated between Outcomes 1 and 2.
Inter-sectoral cooperation & land use planning expert	1000	8	8,000	8,000	The Inter-sectoral cooperation & land use planning expert will assist with implementation of Outputs 1.1 and 1.2 and Output 2.1.
Agronomist	550	6	3,300	3,300	The Agronomist will assist with implementation of Output 1.3 related to assessment, design and piloting of agro-environmental schemes.

Expert/ Specialist Title	Average cost/ week	Person weeks	Total per year	Total for 5 years	Key tasks to be performed
Legal expert	1000	8	8,000	8,000	The Legal expert will assist with implementation of Outputs 2.1 and 2.2.
Institutional effectiveness & capacity development	550	13	7,150	7,150	The expert on institutional effectiveness & capacity development will assist with implementation of Output 1.4. In particular, the expert will conduct performance reviews to identify weaknesses and needs for staff capacity building related to sustainable land use planning and management and provide recommendations for the design of trainings and programs to raise key competences of oblast and rayon akimats accordingly. The expert will contribute to the design of ToT training covering SLM issues that will be provided to experts engaged by KazAgroInnovation and KazAgroMarketing to carry out distant and face-to-face consultations with agricultural producers. Finally, the expert will contribute to the review and update of graduate and undergraduate modules covering SLM issues.
Socio-economist	1000	3	3,000	3,000	The socio-economist consultant will assist with implementation of Outputs 1.1 and 1.2.
Participatory land use planning	500	10	5,000	5,000	The participatory land use planning expert will work with the International consultant on participatory land use planning and will assist in implementation of Output 1.1. In particular, the consultant will perform the following activities: (i) participatory biophysical and socio-economic resource mapping to understand the potential of the various ecozones in the pilot area; (ii) spatial assignment of appropriate land use types considering the needs of stakeholders, local knowledge and development priorities of target rural districts; (iii) identification of existing and potential conflicts among different land-users, and between land-users and ecosystems, and development of measures to mitigate or eliminate such potential or existing conflicts, with proposed measures being agreed with stakeholders; (iv) integration of gender aspects into territorial planning
Expert on How-To guide on land use planning	1000	4	4,000	4,000	The Expert will assist with implementation of Output 1.1. In particular, the expert will summarize results of the pilot land use planning exercise and will produce a “how-to” guide for replication purposes.
Expert on How-To guide on design	1000	4	4,000	4,000	The Expert will assist with implementation of Output 1.3 and will summarize results of

Expert/ Specialist Title	Average cost/ week	Person weeks	Total per year	Total for 5 years	Key tasks to be performed
and application of agro incentives					piloted agro incentives schemes in demonstration projects and produce a “how-to” guide on design and operationalization of agro incentive schemes in Kazakhstan for replication purposes. In particular, the Expert will perform the following tasks: preparation of (a) a summary and analysis of lessons learned (both positive and negative) in implementing pilot agro-incentive schemes, and assessment of economic, social and environmental values of proposed scheme, (b) recommendations on the application of agro-environmental schemes in the Kazakhstani social and economic context, (c) clear guidance on how to design agro incentive schemes given the project experience.
Trainers (ToT trainings)	6000	2	12,000	12,000	Trainers will assist with implementation of Output 1.4 and will deliver professional training sessions.
Expert on results & lessons learned of SLM demonstration projects	1000	4	4,000	4,000	The Expert on results & lessons learned of SLM demo projects will assist with implementation of Output 1.2 and will summarize results of implemented demonstration projects and produce a report with key findings.
<b>International Consultants</b>					
International consultant for mid-term evaluation	3000	4		12,000	The main objective of the mid-term international evaluation team will be to determine progress being made towards the achievement of outcomes and will identify course correction to strengthen the chances for the delivery of the expected results. The team will test and confirm the key hypotheses underlying the project, reassess risks and assumptions, focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learnt about project design, implementation and management. The mid-term evaluation will also examine to which degree cross-sectoral issues such as gender mainstreaming have been taken into account in project planning and implementation. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project’s term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document.
International	3000	4		12,000	The main task of the final evaluation team will

Expert/ Specialist Title	Average cost/ week	Person weeks	Total per year	Total for 5 years	Key tasks to be performed
consultant for final evaluation					be – in accordance with UNDP and GEF guidance – to focus on the delivery of the project’s results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The final evaluation should also provide recommendations for follow-up activities, and the report will feature management response to the issues raised.
Landscape-level land use planning	2250	3	6,750	6,750	The International landscape-level land use planning consultant will assist with implementation of Output 1.1.
Agronomist	3500	3	10,500	10,500	The Agronomist will assist with implementation of Outputs 1.2 and 1.3.
Invited lecturers/ practitioners	2100	3	6,300	6,300	Practitioners (3) from other countries with relevant experience will be invited to provide lectures or deliver training sessions under Output 1.4.
Participatory Land Use Planning	2250	3		6,750	The International Participatory Land Use Planning consultant will assist with implementation of Output 1.1. In particular, the consultant will perform the following activities: (i) participatory biophysical and socio-economic resource mapping to understand the potential of the various ecozones in the pilot area; (ii) spatial assignment of appropriate land use types considering the needs of stakeholders, local knowledge and development priorities of target rayons; (iii) identification of existing and potential conflicts among different land-users, and between land-users and ecosystems, and development of measures to mitigate or eliminate such potential or existing conflicts, with proposed measures being agreed with stakeholders; (iv) support to the project team to integrate gender aspects into territorial planning; (v) Training of project staff and local consultants of specialized participatory methods.

**ANNEX 5: LETTER OF AGREEMENT BETWEEN UNDP AND GOK FOR PROVISION OF SUPPORT SERVICES**

Excellency,

1. Reference is made to consultations between officials of JSC “KazAgroInnovation” of the Ministry of Agriculture of the Republic of Kazakhstan (hereinafter referred to as “KazAgroInnovation”) and officials of UNDP Kazakhstan with respect to the provision of support services by the UNDP Kazakhstan country office for nationally managed project “Supporting sustainable land management in steppe and semi-arid zones through integrated territorial planning and agro-environmental incentives”. UNDP and the Government hereby agree that the UNDP country office may provide such support services at the request of the Government through its institution designated in the relevant programme support document or project document, as described below.

2. The UNDP country office may provide support services for assistance with reporting requirements and direct payment. In providing such support services, the UNDP country office shall ensure that the capacity of the Government-designated institution is strengthened to enable it to carry out such activities directly. The costs incurred by the UNDP country office in providing such support services shall be recovered from the administrative budget of the office.

3. The UNDP country office may provide, at the request of the designated institution, the following support services for the activities of the programme/project:

- (a) Identification and/or recruitment of project and programme personnel
- (b) Identification and facilitation of training activities
- (c) Procurement of goods and services

4. The procurement of goods and services and the recruitment of project and programme personnel by the UNDP country office shall be in accordance with the UNDP regulations, rules, policies and procedures. Support services described in paragraph 3 above shall be detailed in an annex to the programme support document or project document, in the form provided in the Attachment hereto. If the requirements for support services by the country office change during the life of a programme or project, the annex to the programme support document or project document is revised with the mutual agreement of the UNDP resident representative and the designated institution.

5. The relevant provisions of the Standard Basic Assistance Agreement (SBAA) between the Authorities of the Government of Kazakhstan and the United Nations Development Programme (UNDP), signed by the Parties on October 4, 1993 (the "SBAA") including the provisions on liability and privileges and immunities, shall apply to the provision of such support services. The Government shall retain overall responsibility for the nationally managed programme or project through its designated institution. The responsibility of the UNDP country office for the provision of the support services described herein shall be limited to the provision of such support services detailed in the project document.

6. Any claim or dispute arising under or in connection with the provision of support services by the UNDP country office in accordance with this letter shall be handled pursuant to the relevant provisions of the SBAA.

7. The manner and method of cost-recovery by the UNDP country office in providing the support services described in paragraph 3 above shall be specified in the annex to the project document.

8. The UNDP country office shall submit progress reports on the support services provided and shall report on the costs reimbursed in providing such services, as may be required.

9. Any modification of the present arrangements shall be effected by mutual written agreement of the parties hereto.

For the Government

Signed on behalf of UNDP

Name:  
Position  
Date

Name  
UNDP Resident Representative in Kazakhstan  
Date

Attachment: Description of UNDP Country Office Support Services

1. Reference is made to consultations between JSC “KazAgroInnovation” of the Ministry of Agriculture of the Republic of Kazakhstan, the institution designated by the Government of Kazakhstan and officials of UNDP with respect to the provision of support services by the UNDP country office for the nationally managed project “Supporting sustainable land management in steppe and semi-arid zones through integrated territorial planning and agro-environmental incentives”

2. In accordance with the provisions of the letter of agreement signed and the project document, the UNDP country office shall provide support services for the Project as described below.

3. Support services to be provided, including:

Support services	Schedule for the provision of the support services	Cost to UNDP of providing such support services (where appropriate)	Amount and method of reimbursement of UNDP (where appropriate)
Payment Process	Ongoing throughout implementation when applicable	As per the UPL- USD 31.44 for each	UNDP will directly charge the project upon provision of services, on a quarterly basis.
Vendor profile entry in ATLAS	Ongoing throughout implementation when applicable	As per the UPL- USD 16.78 for each	As above
Project personnel selection and/or recruitment process * Project Manager * Project Assistant	Start of project	As per the UPL- USD 522.74	As above
Staff HR & Benefits Administration & Management (one time per staff including medical insurance enrolment, payroll setup and separation process)	Ongoing throughout implementation when applicable	As per the UPL- USD 175.76 for each	As above
Recurrent personnel management services: Staff Payroll & Banking Administration & Management (per staff per calendar year)	Ongoing throughout implementation when applicable	As per the UPL- USD 385.29 for each	As above
Consultant recruitment	Ongoing throughout implementation when applicable	As per the UPL- USD 203.49 for each	As above
Procurement of goods and services involving local CAP	October – December 2013	As per the UPL- USD 469.34 for each purchasing process	As above
Procurement of goods and services not involving local CAP	October – December 2013	As per the UPL- USD 186.61 for each purchasing process	As above
Issue/Renew IDs (UN LP, UN ID, etc.)	Ongoing throughout implementation when applicable	As per the UPL- USD 32.47 for each	As above
F10 settlement	Ongoing throughout implementation when applicable	As per the UPL- USD 26.81 for each	As above
Visa request	Ongoing throughout implementation when applicable	USD 55.46 for each	As above
Hotel reservation	Ongoing throughout implementation when applicable	USD 18.49 for each	As above
Travel Ticket processing	Ongoing throughout implementation when applicable	USD 36.97 for each	As above
Total amount		USD 100,000.-	

**ANNEX 6: SOCIAL AND ENVIRONMENTAL SCREENING PROCEDURE (SESP)**