United Nations Development Programme

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Project title: *Promotion of sustainable food systems and improved ecosystems services in Northern Kazakhstan Landscape*		
Country(ies): *Kazakhstan*	**Implementing Partner (GEF Executing Entity):** *Ministry of Agriculture of the Republic of Kazakhstan*	**Execution Modality**: NIM
Contributing Outcome (UNDAF/CPD, RPD, GPD): *CPD Outcome 3.2. By 2025, all people in Kazakhstan, in particular most vulnerable, benefit from increased climate resilience, sustainable management of environment and clean energy, and sustainable rural and urban development*		
UNDP Social and Environmental Screening Category: Moderate	**UNDP Gender Marker:** *GEN 2*	
Atlas Award ID: 00112782	**Atlas Project/Output ID:** 00111140	
UNDP-GEF PIMS ID number: 6396 **UNDP-GEF PIMS ID of Umbrella:** 6381	**GEF Project ID number:** 10265 **GEF Program ID number:** 10201	
LPAC meeting date: June 23, 2021		
Project duration in months: 60 months (5 years)		
Planned start date: 29 December, 2021	**Planned end date:** 30 December, 2026	
Expected date of posting of Mid-Term Review to ERC: April 30, 2024	**Expected date of posting Terminal evaluation report to ERC:** June 30, 2026	

Brief project description:

Kazakhstan is one of the key crop producers in Central Asia with 21.5 mln ha of arable land; 15.4 mln ha are devoted to cereals, 76% of which are in northern Kazakhstan, where 80% of the country's grain is produced. Wheat crop is the largest agricultural segment in the country, which represents 50% of total agricultural production. Climate risk, aggravated by reliance on monoculture and inefficient technologies, improper management of pastures, forests and wetlands are especially critical in Northern Kazakhstan Landscape (NKL). Desertification drives down soil productivity and causes impact on habitat of species.

The project was developed as part of the the global GEF Impact Program on Food Systems, Land Use, and Restoration (FOLUR) to trigger wide-scale adoption of efficient land management technologies and promote green value chains to reduce degradation of productive agricultural land and associated high value ecosystems in the Northern Kazakhstan Landscape. The project will support Integrated Landscape Management (ILM) policies, capacities and incentives, thus ensuring the enabling environment for transformation of land use practices to avoid ecosystem and land degradation. The project will support establishment of the cooperative platform with wheat exporters and retail companies, led by the Government and focusing on green wheat as key commodity. For the agricultural landscape, the project will support diversification and improved management of productive croplands, introduce agro-environmental incentives for sustainable food production, restore pasture land and introduce sustainable pasture management techniques. The project will support the

establishment of a network of high-nature value ecosystems within game reserves, high nature value forest districts, wetlands, a local protected area and a connecting corridor. The project will finance innovative reforestation pilots and replicable restoration demos for dryland forests, degraded lake and wetland ecosystems. Within its knowledge management component, the project will assist the sectoral stakeholders with the establishment of a national experience exchange network on sustainable food production, organization of vocational and academic training programs in agricultural colleges and universities, awareness raising and advocacy for sustainable food production, SLM, conservation and sustainable use of valuable natural ecosystems in productive landscapes.

(1) FINANCING PLAN	
GEF Trust Fund	USD 10,467,000
(1) Total Budget administered by UNDP	**USD $ 10,467,000**
(2) CO-FINANCIERS THAT WILL DELIVER PROJECT RESULTS INCLUDED IN THE PROJECT RESULTS FRAMEWORK (FUNDS NOT ADMINISTERED THROUGH UNDP ACCOUNTS)	
JSC Agrarian Credit Corporation (ACC)	$5,000,000
Analytical Center of Economic Policy in the Agricultural Sector (ACEPAS)	$14,000,000
JSC National Agrarian Science and Education Center (NASEC)	$17,000,000
Agricultural experimentation station "Zarechnoe"	$2,700,000
Union of Crop Farmers	$2,000,000
Qazaqstan Organic Producer Union	$3,000,000
Ministry of Agriculture	$27,500,000
Forestry and Wildlife Committee (FWC) of the Ministry of Ecology, Geology and Natural Resources (MEGNR)	$16,434,000
National Chamber of Entrepreneurs/Agrocompetence Center	$11,000,000
KazHydroMed	$18,000,000
Akimat of the Ayirtau district of the North Kazakhstan Oblast	$30,000
EN DALA Limited Liability Partnership	$582,600
Ayam-7 Limited Liability Partnership	$78,000
Tselina Agro Limited Liability Partnership	$24,572
Association of Ogranic Farming	$337,500
Yershovskoe-2 LLP	$131,775
Beibars Agro LLP	$110,116
Bolshemalyshenskoye LLP	$52,733
Kyzyl Agro LLP	$60,000
Makinka 2015 LLC	$235,600
Ayantay LLP, Tamyr & Askyr Peasant Farms	$100,000
Keneshov Peasant Farm	$10,000
Naurzum State Nature Reserve	$95,000
Burabay State Nature Park	$13,595,400
“Kolossovsky” Individual Enterpreneur	$229,870
(3) Total confirmed co-financing	**USD 132,307,166**
(4) Grand-Total Project Financing (1)+(2)	**USD 142,774,166**

SIGNATURES		
Signature: _____ Karashukeev Erbol Shyrakpaevich, Minister of Agriculture of the Republic of Kazakhstan	**Agreed by Implementing Partner**	**Date/Month/Year:** 8.02.2022
Signature: _____ Yakup Beris, UNDP Resident Representative	**Agreed by UNDP**	**Date/Month/Year:** 29.12.2021.

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Acronyms

ACEPAS	Analytical Center of Economic Policy in Agricultural Sector
ACC	Agrarian Credit Corporation of KazAgro National Holding
AES	Agricultural Experimentation Station
BAU	Business-as-usual
CAC	Center of Agrarian Competence
ERC	Evaluation Resource Center
FAO	UN Food and Agriculture Organisation
FFCIS	Forest fire control information system
FSP	Full Sized Project
FWC	Forestry and Wildlife Committee of the Ministry of Ecology, Geology and Natural Resources
FOLUR IP	Food Systems, Land Use and Restpration Impact Programme
GAP	Gender Action Plan
GEF	Global Environment Facility
GEFSEC	Global Environment Facility Secretariat
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
HCVFs	High Conservation Value Forests
HTC	Higher Technical College
ILUP	Integrated Land Use Plan
JSC	Joint Stock Company
KazFOAM	Kazakhstan Federation of Organic Agriculture Movements
KazNIILHA	Kazakh Scientific-Research Institute of Forestry and Agro-forest Amelioration
KM	Knowledge Management
KSUA	Kazakh State University of Agriculture
LDN	Land Degradation Neutrality
LLC	Limited Liability Company
LLP	Limited Liability Partnership
LULUCF	Land Use, Land-Use Change and Forestry
MEGNR	Ministry of Ecology, Geology and Natural Resources
MoA	Ministry of Agriculture
MoU	Memorandum of Understanding
NASEC	National Agrarian Science and Educational Center
NC FCC	National Company Food Contract Corporation
NIM	National Implementation Modality
NKL	Northern Kazakhstan Landscape
NKSU	North Kazakhstan State University
PA	Protected Area
PIF	Project Identification Form
PIR	Project Implementation Review
PMC	Project Management Costs
POPP	Programme and Operations Policies and Procedures
PPG	Project Preparation Grant
RBO	River Basin Organizations
RK	Republic of Kazakhstan
RSE	Republican State Enterprise
SESP	UNDP Social and Environmental Screening Procedure
SLM	Sustainable Land Management
SME	Small-and-medium Enterprise
SWOT	Strengths Weaknesses Opportunities Threats
TFG	Task Force Group
ToC	Theory of Change
ToR	Terms of Reference

HACT	Harmonised Approach to Cash Transfers
PCAT	Partner Capacity Assessment Tool
PB	Project Board

I. DEVELOPMENT CHALLENGE

Overall development context and challenge

1. Kazakhstan has 21.5 mln ha of arable land; 15.4 mln ha are devoted to cereals. Wheat crop is the largest agricultural segment in the country, which represents 50% of total agricultural production. Kazakhstan is one of the top ten wheat exporters globally and the leader in flour export. Kyrgyzstan, Tajikistan, Uzbekistan, Turkmenistan and Afghanistan are the largest importers of Kazakh wheat. Wheat production in Kazakhstan is, therefore, an important source of food security for Kazakhstan and its 18.5 million people, as well as for the entire region.

2. 80% of the country's grain is produced in northern Kazakhstan. Over 4 mln ha of cropland there is classified as "degraded" under UNCCD National Action Plan definition, primarily as a result of reliance on single-crop cultivation and slow adoption of anti-erosion and resilience-centered practices. Over the past 30 years, humus content in topsoil decreased by 10-20%[1]. This represents a food security risk, and compromises Kazakhstan's wheat exports.

3. The Northern Kazakhstan Landscape (NKL) is highly mosaic, and due to this there is a high level of potential encroachment of crop agriculture on natural ecosystems. Since natural systems play an important role in maintaining ecosystem services, such encroachment by agricultural practices can have a significant impact on the ecosystem. Forests of northern Kazakhstan occupy an area of about 1.1 million hectares or 8.7% of total forest cover in the country, and act as major barriers against wind storms/soil erosion, which is an important service for crop agriculture. Typical trees include birch (65%), pine (36%) and aspen (25%)—with birch and aspen often growing in small groves called 'kolki' and strips of pine either growing in sandy soil or grouped in patches across the NKL. Over 35% of the country's steppe forests are found here. Steppe grasslands and shrublands cover ca. 45% of the NKL total land area and thus steppe ecosystem health and functional integrity are vitally important for the region's landscape sustainability and productivity. On the other hand, pastures comprise at least 42% of the agricultural land area in the region and approximately 85% of the pastures are steppe ecosystems. Approximately one third of the Soviet-era arable land is still abandoned, which has occurred since the 1990s. The fallow lands were a scene of spontaneous steppe ecosystem restoration and presently are covered with secondary steppe grasslands and shrublands. These secondary steppe ecosystems are semi-natural but valuable as ecosystem services providers and important habitats for many species of special conservation and economic concern.

4. Crop agriculture in the NKL in many areas depends on the supply of a sufficient quantity and quality of water, from groundwater reservoirs, which in turn are connected to numerous lakes and wetlands. Overuse of water and diffuse contamination of lakes present a major threat to these ecosystems stemming from crop agriculture. The NKL ecosystems at the same time are home to numerous threatened species, such as White-headed duck (*Oxyura ieucocephala*), Siberian crane (*Grus leucogeranus*), Sociable lapwing (*Chettusia gregarua*), and Saker falcon (*Falco cherrug*).

Systemic challenge 1: Disintegrated and uncoordinated land use planning

5. At the moment, croplands, rangelands, forests, hunting areas and wetlands currently are managed in isolation from each other, by different entities, without account environmental connectivity. While land use planning has been decentralized on paper through Government reform, yet institutional and individual capacities of farmers, local governments at regions, district and village levels, as well as concrete hunting reserves, or forest units, are not sufficient for them to come together to map and analyze land activities jointly. Collective land use analysis and planning has not yet happened at a scale of a region (e.g. as large as NKL). Under business as usual, territorial planning is performed solely for tax purposes[2].

6. 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. Sectoral approaches to land use planning and decision-making and land use planning processes in the target landscapes still dominate. Arable land, pastures, forests, hunting areas and wetlands are managed by different central and regional government bodies with varying degrees of responsibilities and control and largely functioning in isolation. For example, oblast and district akimat units on agriculture oversee arable and pasture lands, akimat

[1] The Fourth National Report of Kazakhstan on Implementation of the UN Convention to Combat Desertification (with comments and additions). 2012. Astana, Republic of Kazakhstan

[2] In Kazakhstan, territorial planning is performed solely for tax purposes, i.e. for setting land tax rates given soil fertility indicators (or bonitet).

units on natural resources and environmental management are responsible for forestry management units, wildlife resources and protected areas, and akimat water management units control water resources. At the national level this division of functions corresponds to the Ministry of Agriculture of RK, Ministry of Ecology, Geology and Natural Resources of RK and the Water Resources Committee, respectively. According to the established practice, each authority develops its own annual plan for the use of natural resources it oversees and/or manages. To complicate things further, development of such sectoral plans is not usually coordinated with authorities at regional and local levels. The current planning system fails to use an integrated approach that would factor in the needs of ecosystems for sustaining their services in the long run, in addition to the needs of other sectors of the economy.

7. Peasant farms, individual farmers and other agricultural land users are mandated to develop annual plans for the use of arable land and pastures. The key objective of these individual plans and responsibility of agricultural entities is to meet the set targets for the production of agricultural products. The agricultural land users do not practically participate in the territorial planning process at the regional or rural district levels.

Systemic challenge 2: land degradation is beyond farmers' capacities to sustain economic stability, where current cropland management practices does not contribute to sustainability

8. Northern Kazakhstan was once at the heart of the massive and rapid Soviet cropland expansion program, often called the Virgin Lands Campaign. Under this program, approximately 45 million ha of primarily virgin steppes were converted into wheat and other annual cropland between 1954 to 1963, of which roughly half were in Kazakhstan, and mainly - in Northern Kazakhstan. Opening up a vast tract of steppe areas, without proper long-term scientific analysis of consequences, ultimately led to a sharp decline in productivity of natural pastures and grasslands, eventually resulting in lower wheat and other grain yields. Reliance on single-crop (primarily wheat) cultivation had taken its toll on the fertility of the soil, and failure to adopt anti-erosion measures led to millions of tons of soil simply blowing away.

9. At present, continued loss of organic content of soil, combined with extreme climatic events, drive extremely instability in the food supply. National experts have indicated that wheat prices in Kazakhstan swing between $120 and $170/MT depending on the year. This market volatility, in turn, drives unwillingness of the key financiers of agriculture (Joint Stock Companies (JSCs) "Agrarian and Credit Corporation (ACC)", "Fund for financial support of the Agriculture", "KazAgroFinance", "Economic Center for Agriculture") to give credit to farmers. Farmers represent only 5% of total loans outstanding in Kazakhstan, and these are mostly large-scale farmers from areas outside of NKL. The smaller the farmer, the less capable he/she is to invest in technologies that would ensure lower humus loss, prevent erosion, withstand drought or completely change crops. This means, when applying for credit/microcredit/subsidy he/she is not able to prove protection against losses, and thus, he is does not look as a lucrative client for the key financiers of agricultural support in Kazakhstan. It should be noted that over 80% of agricultural entities by number in NKL are small-and-medium enterprises (SME) as opposed to large farms; and that over 80% of livestock is owned by small-holders.

10. Baseline programs in Northern Kazakhstan mainly target conventional agricultural practices that focus on increased overall output of the wheat crops without regarding the ecosystem's carrying capacity. A review carried out by UNDP Country Office (2012) showed that: (1) the design and content of the northern Kazakhstan regional development plan has much reflection on crop diversification; (2) none of the regional baseline programs are based on evaluation of ecological carrying capacity of ecosystems while prosing diversification of grain crops; (3) subsidized activities in most cases fail to contribute to improved ecological status of lands; (4) subsidy programs strongly favor heavy crop cultivation and extend almost no support to pasture, hayfield and forest management, or other sustainable practices.

11. The existing financial support system fails to reward land users for maintaining the ecological integrity of agricultural and forest landscapes. The baseline farmer support scheme sends rather perverse signals, motivating farmers to simply increase the area of lands per farm to be eligible for subsidies. In the crop sector, the government support scheme is extremely biased toward wheat production since the scheme applies no ecological or any kind of sustainable criteria. This, it turns, leads to the proliferation of large-scale monoculture crop production.

12. In 2018, several ineffective subsidies, such as per hectare subsidies in crop production and productivity subsidies in livestock farming, were cancelled. However, having passed the restructuring reform in 2018, 34 out of 54 subsidies still remain ineffective. MoA plans to simplify remaining ineffective subsidies as much as possible, and fully automate the process of subsidy approval by the end of 2020. In terms of agro-environmental stimulation and land degradation prevention, this approach—cutting direct production subsidies and redistributing funding to indirect subsidies—expects to have a significant positive effect on the agricultural subsidy system.

13. The governmental agricultural subsidy scheme still lacks specific agri-environment measures—which support adaptation of environmentally friendly farming techniques—as its key element. None of the available agricultural loan products is specifically targeted to funding green production. There are no taxes that have a direct positive impact on farmer's responsible behavior for the sustainable land use. The existing economic incentives and the relevant regulatory framework lack priorities to reduce land degradation and promote agro-environmental developments.

14. The demand for green products just now starts to be built through partner projects between UNDP and food retailer/wholesaler/export companies, such as JSCs Tesna, KazIrAgro, Grain Pool, Logos Grain and Kazakh Export. The country needs demonstration of farmer ability to produce green products before meaningful dialog with market chains can start on their wider adoption. In this matter, the role of extension services (or any other farmer "hand-handling" assistance) can not be under-estimated. The existing extension services need major revamping, starting from resolving the issue of subordination (as it recently shifted from the Ministry of Agriculture to the National Chamber of Entrepreneurs), staff qualification (according to farmer interviews current extension service experts are extremely underqualified), outdated demonstration equipment used, and mode of service provision (recently boiling down to large voluntary seminars where only a small fraction of the content is devoted to green production such as soil-moisture saving techniques). Farm-by-farm audits do not cover green production options or climate smart technologies. The switch to innovative farming techniques requires years to master and, unless farmers received ongoing assistance, it is most likely going to be abandoned.

Systemic challenge 3: Encroachment of economic activities on ecosystems of high conservation value

15. There is a high level of encroachment of degrading commercial lands on birch-aspen forests, natural steppe and forest steppe, and wetlands causing habitat loss of ecosystems and presenting threats to species. Natural ecosystems, including the remaining steppes, naturally recovering fallow lands, and forests and wetlands are all important buffers for a productive landscape, ensuring delivery of ecosystems services such as soil fertility, prevention of wind erosion, regulation of groundwater and maintenance of a proper water balance, as well as climate regulation. Many of the areas must be declared as no-go for agriculture, due to their unique role as important providers of ecosystems services and as a home to globally threatened biodiversity. Yet many valuable ecosystems suffer from a lack of effective protection and management as a result of unabated encroachment. Of the total NKL landscape, just 1.06% of forest-steppe has adequate protection and management (as local protected areas). High nature-value forest ecosystems of northern Kazakhstan lack effective management largely due to a scattered and uneven distribution across the productive landscape. This fact prevents regional forestry units and akimats from maintaining proper conditions for the ecosystems.

16. A 2018 forest inventory in northern Kazakhstan registered soaking forest stands covering at 2,049.3 ha that resulted from the adverse weather conditions - rainy summers of 2014-2016 and heavy snowfalls in 2015-2017. According to the recent sanitary inspection, about 22,000 ha of "kolki" patchy forests are susceptible to waterlogging due to rising water tables. In 2017 state forestry entities had to harvest 3,205 hectares of such degraded forests. Obviously, timber quality has deteriorated. Waterlogged stands have become the source of pests and forest diseases. For example, birch stands are rather susceptible to a well-known, but little studied bacterial disease, *Erwinia multivora Sch.-Parf*., that in the short-run could lead to a significant reduction of birch stands, and in the long-run - to their total destruction. The spread of this disease in NKL is especially dangerous since birch is the main tree-forming species of forests in the target areas. Mass mortality of birch stands can result in a sharp decline of the forest area cover in the region. Restoration and sustainable management of these critical natural biotopes requires science-based management approaches. Yet, forest units and responsible departments of akimats in the region lack capacities to handle these threats.

17. NKL—due to existing climate conditions (average precipitation level amounts to 209-350 mm per year) and effects of climate change—often experiences prolonged periods of severe droughts that contribute to the occurrence and spread of fires. Fires continue to pose the major risk to forests in northern Kazakhstan. Fire season exceeds 165 days. Over the past 5 years, 295 cases of forest fires consuming 11,600 ha were registered in northern Kazakhstan, which is almost 34% of the national statistics. According to the regional statistics, about 90% of forest fire cases in the northern Kazakhstan result from uncontrolled agricultural burnings during sowing/harvesting campaigns. Emergency departments has developed standard protocols for preventing forest and steppe fires but the existing fleet of fire trucks in state forestry institutions of northern Kazakhstan is outdated (over 25 years) and requires upgrade for the timely response and effective fire-fighting operations in natural steppe and forest areas adjacent to agricultural lands. Existing fire and chemical stations of state forestry entities operate only during the fire hazard period from April 15 to October 15 (depending on weather conditions) due to the lack of budget financing for the whole year.

18. In the region's agricultural lands, the arable area is larger than the area of steppe pastures (54% and 42% respectively). Habitat degradation and loss are still the main threats to steppe grasslands and shrublands in the NKL. Specifically, the

steppe pastures are subject to overgrazing around settlements and under-grazing in remote areas (which is making them especially vulnerable to degradation and fires). A mosaic of steppes and croplands is common in the NKL and steppes in close proximity to croplands are specifically threatened with pesticides and fertilizers being transferred from croplands. Other disturbances of the region's characteristics are being driven by afforestation, road construction, etc. Secondary steppe grasslands are threatened by re-cultivation. After 2003, at least 35% of the total area of abandoned land in the NKL had already been re-cultivated. Clearly, re-cultivation of some part of the fallow lands is reasonable and inevitable. Nevertheless, the secondary steppe biodiversity and ecosystem functions (including soil restoration, soil carbon sink, and many others) are important and the environmental (and economic) costs of re-cultivation should be taken into account.

19. Crop agriculture in NKL depends on supply of sufficient quantity and quality of water from ground reservoirs, which in turn are connected to numerous lakes and wetlands. There are about 3,200 lakes and wetlands in the northern Kazakhstan which are an important water supply source for farmers. Yet, due to constant uncontrolled water withdrawal for crop agriculture, numerous lakes in the region have become shallow and heavily grassed, containing lots of sediments, ultimately becoming unsuited to fulfil such important ecosystem services as water provision, and ground water regulation (ground water table has dropped significantly over past decades), not to mention – directly impacting on the destruction of habitat of water bird species. Plant residues and sludge in the lakes decompose over time resulting in the decrease of oxygen levels, spread of algae, cloudy water, which eventually leads to lake shallowing and waterlogging.

II. STRATEGY

20. The project approach stems from clear degradation evidence: over 4 mln ha of cropland in NKL is classified as "degraded" under UNCCD National Action Plan definition, as a result systemic challenges outlined above. High level of encroachment on birch-aspen forests, natural steppe and forest steppe, and wetlands causing habitat loss of IUCN species, has been well documented. 62% of winter and 71% of summer pastures in NKL eroded (ref. 1980s) due to uncontrolled expansion of livestock numbers and inadequate cattle management.

21. Business-as-usual (BAU) relies on outdated agrobusiness technologies, Government subsidies which do not favor green production and discriminate in favor of large-scale farmers, limited access of farmers to financial assistance for green production. BAU comes at high cost to environment (39% land degraded; loss of forest belts, etc.) and risk of failure to supply food under changing climate (e.g. 53% harvest loss in 2012 due to drought), becoming critical in the long term. In contrast, the project scenario (PS) relies on recent positive enabling policies to expand access of SMEs to green markets (>80% of agricultural entities by number as opposed to large farms; 80% of livestock is owned by small-holders), helping with land restoration, diversification, soil improvement; improvement of pastures, restoration of degraded natural ecosystems; marketing, certification and sales assistance (linking to private sector).

22. The project's approach focuses on one of the continent's major production landscape (NKL) and relies on (1) integrated land use planning; (2) revision of BAU fiscal agricultural support system, and introduction of innovative agroenvironmental incentives, (3) demonstrating green crop production technologies and sustainable pasture management practices in situ, and (4) improved efficacy of management of natural forests, lakes in wetlands in between the production areas, that are important buffers under changing climate.

23. NKL is an important center of agriculture in Central Asia, a major production center of cereal crops (wheat, as well as barley and maize) and cattle (beef). (Note: 70% of Kazakh grain is exported). Secondary products from cropland include rapeseed, flax, sunflower seeds. Where these crops and cattle can continue to be produced without risk to environment or loss of productivity due to climate, project will work on in-situ production improvements, removing externalities. Many areas under annual crops, however, are scientifically proven to be unprofitable and destructive for environment; replacement by perennial crops with appropriate disease management, water retention, choice of climate resilient varieties will benefit food security and environment at once. Support will be provided for access to funding, production, marketing, extension services, in this case. Improved access to distant pastures, innovative pasture watering, and pasture restoration will remove externalities from the cattle product value chains. Over 6,000 small and medium farmers are expected to improve security of their business, not counting replication. Integrated land-use planning model will be embedded in Kazakhstan, land use techniques will become based on modern environmental science, will be site-tailored, and climate-proof, minimizing risk of harvest loss in the long-term, while insuring no negative impact on state of soils, vegetation and surrounding ecosystems. Degraded forest belts amidst agricultural areas will be restored, along-side with restoring degraded lake and wetland ecosystems, acting as corridors and buffers for the productive areas within NKL.

24. The project's Theory of Change (ToC) is summarized in Annex 6 to this project document. The project interventions have been designed as an incremental step towards a healthy co-existence of productive landscape and the natural buffer areas, and are called to remove the administrative barriers associated with the existing sectoral land use management and planning within a highly mosaic landscape, and the lack of dialogue between farmers, foresters, water administrations, meteorologists and conservation managers on the sub-national level. The eventual goal of this project's ToC is to provide the basis for a paradigm shift away from the current business-as-usual case in agriculture in the NKL. The present situation has developed from a history of mostly independent and splintered approaches where individuals and entities are simply looking out for their respective sectoral interests, without enough attention being paid to the local, regional and even global, impacts in a longer term. This has led to inappropriate agricultural practices that rely on a single crop and have negatively impacted the existing croplands, pasturelands, forests and wetlands. These negative impacts have not only affected the natural ecosystem but came back and caused deterioration of the same croplands on which agriculture in NKL relies.

25. Using an integrated landscape management approach, with collaboration and involvement by all parties in the NKL Green Crop Value Chain (GCVC), is the primary focus of the ToC. The desired results will require engagement of the private sector, including agribusiness, food processing industry, and the financial sector, to scale up improved practices and quality standards throughout the GCVC. Improved governance is also needed in order to make incentives more effective and enablement of policies to promote sustainability, consistently apply the best available sectoral practices and intersectoral planning mechanisms, and eliminate unintended negative interactions that arise when multiple sectoral plans are implemented independently of each other. The project will catalyze more resource efficient and effective production practices in more sustainable and resilient landscapes and agricultural production value chains.

26. The project scenario aims to transform the current system of land use and sectoral land and nature resource management in NKL. More sustainable agricultural practices, and particularly improved pastureland management and diversified crop production, will not only provide for better economic development scenarios in the region, but also reduce the negative impact on the natural elements of the mosaic landscape, and contribute to climate risk resilience. Healthier ecosystems surrounding the agricultural landscape would continue their crucial role in maintaining ecosystem services throughout the landscape, contribute to ensuring food security by providing restored pastures and hayfields, and supply a sufficient quantity and quality of water for crop agriculture. The conservation and improved management of natural ecosystems will ensure maintenance of carbon sinks and provide stable habitat for keystone and endangered species. The long-term solution proposed by this project is an integrated approach to management of productive lands and natural ecosystems based on the best available knowledge and practices, with a due account of development priorities for the region, and care for its unique environmental values.

27. The project's ToC is built on the foundation provided by the overall TOC in the FOLUR Impact Program. Various considerations of region-specific issues are woven into the fabric of the project TOC and they are applied on varying geographic scales and with consideration of many variables, including the entities involved and their contribution to the governance of the area, the specific lands that are being considered, and the ecosystems that have evolved in both natural and agricultural settings. All of these variables are melded into the project TOC that has as its ultimate goal the development of Sustainable, Integrated Landscapes & Efficient Food Value/Supply Chains. While seeking this goal, the project will define and avoid unintended consequences from the existing path of independent sectoral plans and activities. The project will catalyze more resource efficient and effective production practices in more sustainable and resilient landscapes and agricultural production value chains.

28. Achieving a wider landscape transformation and transition will require a holistic, system-wide approach integrating both horizontal (land and natural resources) and vertical (food value and supply chain) dimensions. Land degradation, declining agricultural productivity, malnutrition and rural poverty are interrelated problems that require a systems-level approach to planning, management, monitoring and decision making. The ToC integrates the project Components, Outputs and Outcomes designed to provide seamless actions in bridging the gap from the existing problems to the ultimate project goal. The internal parts of the Components, Outputs and Outcomes also need to work in concert with each other in order for the overall project ToC to achieve its goal. Land degradation, declining agricultural productivity, malnutrition and rural poverty are interrelated problems that can only be met with this systemic approach to planning, management, monitoring and decision making. The project seeks to catalyze transformational shift through actions at priority landscape level, as well as at the national and regional levels through a combination of investments, policy and governance interventions, and convening coalitions of engaged partners regionally working with value chain organizations and private sector actors to leverage new partnerships and investments toward transformative and sustainable outcomes.

29. The project's Theory-of-Change has been developed based on the assumption that the existing inefficiencies that are coincidental with the sectoral land-use planning and unsustainable production of wheat in the NKL would be corrected

before any significant changes in agricultural practices will be recognized to be economically viable. Only after integrated land management systems are developed, sustainable food production options are defined and natural habitats are conserved and restored will there be notable improvements in the existing practice of wheat production. Without such fundamental changes, the project objective associated with the responsible agricultural production cannot be achieved.

30. The project advances the objectives of the 2016 National Action Program under UNCCD, which emphasizes the need: to raise effectiveness of land-use planning, zoning and cropping patterns, in an integrated way; improving the financial mechanism/incentives to ensure sustainability of agriculture; promote green products. Kazakhstan's National Biodiversity Strategy and Action Plan commits to increasing protection for forest and wetland ecosystems within production landscapes, and improve effectiveness of management of its high value ecosystems. The project advances implementation of Ramsar Convention on wetlands (through Component III), and contributes to higher rates of carbon sequestration in the LULUCF sector under UNFCCC.

31. The project aims to generate multiple global environmental benefits, as well as local benefits, by demonstrating improved protection, restoration, and sustainable management of degraded agricultural lands, forests, forest-steppes, meadows, lakes, wetlands and associated corridors within the Northern Kazakhstan Landscape. The need to address unsustainable commodity production and associated land degradation, mentioned in the justification for the GEF-7 Impact Program on Food Security, Land Use, and Restoration Impact Programs, is a key driver of this project. The project will contribute to the GEF's Land Degradation focal area Objective 1 Support on the ground implementation of SLM to achieve LDN. It will restore 150,000 ha of degraded agricultural land, 5,000 ha of HCVF, 4,600 ha of wetlands and lakes important for agriculture, and promote integrated management for 22 mn ha within a wider landscape. It will also reduce pressures on High Conservation Value areas stemming from unsustainable practices by catalyzing a shift from a sectoral to multi-stakeholder land use planning approaches. The project generates benefits under the Biodiversity focal area as it will improve the conservation status of and management effectiveness of Key Biodiversity Areas that provide ecosystem services, and which act as critical habitats for several globally threatened species, which is in line with BD Objective 1. Under the climate change focal area, Objective 2 Demonstrate mitigation options with system impacts, the project will generate benefits by restoring degraded forests to their natural condition.

III. RESULTS AND PARTNERSHIPS

3.1 Project description and expected results

32. The project objective is *"To trigger wide-scale adoption of efficient land management technologies and promote green value chains to reduce degradation of productive agricultural land and associated high value ecosystems in Northern Kazakhstan Landscape"*. The project focuses on promoting an integrated landscape-focused approach, improving sustainability of food production systems and ecosystems in this major wheat-dominated landscape. The project addresses the current deficiencies in integrated land use planning, green wheat production and crop diversification technologies; introduces a system of agroenvironmental incentives to increase access of small-holders to affordable funding for sustainable production; collaborates with the market players to promote products from sustainable crop farming; demonstrates efficient agricultural technologies in situ and conserves high nature value ecosystems within the NKL.

33. The project proposes a four-component approach, which corresponds to the systemic challenges outlined above. The detailed description of the planned project outputs is presented below.

34. Under **Component 1**, the project will demonstrate the overall approach, techniques and schemes for increasing the effectiveness of land use planning and management in the NKL region of Kazakhstan by enhancing the conservation-friendliness and sustainability of productive agricultural landscapes. The component 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 which will be enabled by monitoring and enforcement capacities; strengthened national and regional capacities and services of the agromet network; and continuous overarching support at the central level through inter-agency coordination for guiding and upscaling piloted integrated landscape management approaches to other regions of the country.

35. The expected total landscape area to be brought under sustainable productive use through territorial planning is about 230,000 hectares, representing the total area of the three (3) pilot rural okrugs. 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 in target regions.

Output 1.1: Integrated Land Use Plans (ILUPs) employ a landscape management approach to support short-, mid- and long-term decision-making, restore and conserve ecological functions and processes of agricultural and natural landscapes in three pilot rural okrugs of the Northern Kazakhstan Landscape (NKL).

36. The project will work with the oblast and district level offices of the Ministry of Agriculture (MoA), the Land Management Committee of the Ministry of National Economy, environmental regulation and water authorities (forestry, PAs, hunting concessions, water user associations, river basin organizations), units of akimats of selected districts and rural okrugs in the target oblasts (land relations, agriculture, nature resources and water management units), councils for sustainable economic development of rural akimats 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 productive agricultural landscapes and associated high value ecosystems in NKL through LDN practices. The project will use the experience of UNDP-GEF projects on wetlands (completed), PA management in deserts (completed), supporting SLM in steppe zones (at the terminal evaluation stage), conservation and sustainable management of key globally important ecosystems for multiple benefits (ongoing, at midpoint in its implementation), and that of UNDP-GIZ-GEF on sustainable rangeland management for rural livelihood and environmental integrity (completed) in implementing this output.

37. The project will work with the following three (3) rural okrugs: *Karamendinsky rural okrug* of Naurzum district of Kostanay Oblast (dry steppe), *Belovsky rural okrug* of Mamlyutskiy district of North Kazakhstan Oblast (forest steppe) and *Makinskiy rural okrug* of Birzhansalkskiy district of Akmola Oblast (birch-aspen forest ecosystems). The pilot rural okrugs were selected for integrated landscape planning and implementation aaccording to the selection criteria developed at the PPG phase, as follows:

- The soil and climatic conditions of the pilot sites are representative of the zonal features of the Kostanay, North Kazakhstan and Akmola regions. The Karamendinsky rural okrug of the Naurzum district of the Kostanay region is located in the dry steppe zone with relict forests, the Belovsky rural okrug of the Mamlyut district of the North Kazakhstan region is in the northern part of the forest-steppe zone with large forests stands, and the Makinsky rural okrug of the Birzhansal district of the Akmola region is in the southern part of the forest-steppe zone with kolki forests. They have very different natural and climatic conditions and therefore require different approaches when organizing the integrated land use. Lessons and successful practices gained in each of these pilot sites can be successfully disseminated in the respective natural landscapes of 3 regions.

- The priority activities of farms in the pilot sites are grain growing and livestock farming. They are located near protected areas (national parks, refuges, ecological corridors), and lands of the state forest fund. There are also wetlands of local or global importance, lakes and rivers in the territories of the pilot sites. These serve as primary premises for demonstrating the system of integrated natural landscapes management and sustainable grain and livestock production approaches while maintaining the integrity of the natural ecosystem in three pilot rural counties of the northern regions of Kazakhstan.

- A high level of interest demonstrated through PPG consultations by the local governments, communities and farmers, and willingness of ensure 50 to 80% of the co-financing (parallel/in-kind) to ILUPs development and pilot implementation. Also, rural okrug and district Akimats agreed to integrate pilot activities with local, regional, state and international programs for the sustainable development of the agro-industrial complex and environmental protection implemented on the project territory.

38. The land use planning exercise will build on the current process of development of a design (scheme) of functional zoning as stipulated by Article 8 of the Land Code of RK, which constitutes the existing land use planning matrix. The following steps are envisaged by the project for a gradual shift from random sectoral to integrated land use planning at the rural okrug level and development of three pilot ILUPs covering an area of approx. 230,000 ha:

i. Revising and, if needed, expanding the mandate and composition of already existing district-level land use revision commissions in the Naurzum district of the Kostanay Oblast, the Mamlyutskiy district of the North Kazakhstan Oblast and the Birzhansalkskiy district of the Akmola Oblast. In addition to representatives of land management, agricultural and environmental units of district and rural okrug akimats, the Commissions will include other relevant government organizations and institutions (e.g. protected areas, forestries, fisheries, river basin organizations), oblast-level Kazhydromet offices, members of councils for sustainable economic development under rural akimats, associations or unions of farmers, herders, hunting associations and other relevant district level land users. The Commissions will develop a platform to

facilitate and engage in stakeholder consultations during the pilot process of integrated land use planning and implementation of on-the-ground conservation/restoration activities in productive and natural landscapes of the three target districts as specified in Outputs 2.2, 2.3, 2.4, 3.2 and 3.5. The Commissions will devise and approve rules and procedures for integrated land use planning at the rural okrug level stemming from requirements and provisions of the Land Code of RK, which includes Rules on rational use of agricultural lands. The approved rules and procedures will guide the process of integrated land use planning and best international practices. Finally, the land use revision commissions will play a vital role for replication and upscaling of successful integrated land use planning and management practices by the selected district akimats in neighboring rural okrugs as well as for passing on knowledge and experience to other districts of the target wheat-growing oblasts of NKL.

ii. Identification of functional zones in the three rural okrugs where ILUPs will be piloted, taking into consideration geo-climatic conditions, natural ecosystems (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.).

iii. Identification and spatial assignment of appropriate land use types and practices using participatory planning methods that consider the needs of all land users and stakeholders, local knowledge and development priorities of pilot rural okrugs.

iv. Jointly with regional Kazhydromet offices, the agroclimatic analysis and forecasts for pilot rural okrugs using data from the agromet network.

v. 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 mid and long term. Since the potential to expand the arable land area has already been exhausted in the NKL, pilot ILUPs should include the development of production of high added value products (advanced processing of grain, oil seeds, by-products of crops and livestock farming, e.g. straw, chaff, grain waste, meat, milk, leather, etc.) as well as additional alternative activities such as ecotourism, eco-hunting, fishing, beekeeping, horse riding, koumiss therapy, folk craft, etc.

vi. 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.

vii. Development of a GIS-based integrated land use plan for each rural okrug and its dissemination to relevant units (agriculture, land use, water management, nature resources management) of district and rural okrug akimats for comments and approval. The planning document will contain recommendations (including GIS-based maps) for different types of land use given short-, mid- and long-term development priorities of rural okrugs and the potential constraints of ecosystems.

viii. Assessment of economic, environmental and social impacts of pilot ILUPs and associated demonstration sites as part of demo sites for pilot ILUPs under Outputs 2.2, 2.3, 2.4, 3.2 and 3.5 below. Analysis of lessons learned to inform the next cycle of land use planning in selected rural okrugs as well as for replication and upscaling by oblast and district akimats in neighboring rural okrugs/districts and other oblasts.

39. Once agreed upon with the district akimats, final draft ILUPs—as part of land use master plans for each target district—will be submitted to district maslikhats[3] for final endorsement and then should be registered in accordance with established procedures with the Justice authorities of RK. This, ILUPs will have a legal force obliging all parties to implement them. Also, district and rural okrug akimats will have strong leverage and a legal right to request government financing for implementation, monitoring and evaluation of pilot ILUPs, thus fulfilling co-financing commitments for the Project.

40. A monitoring and enforcement system to ensure and monitor implementation of ILUPs will be put in place. This will include district-level land use revision commissions and maslikhats, and on-site inspections performed by land inspectors. The roles and responsibilities of the government institutions involved in territorial planning, monitoring and enforcement will be clearly defined based on their existing functional roles. The system will have possible sanctions in place to enforce non-compliance, based on the standing Administrative Code and the Rules on Rational Use of Agricultural Land, and specifically the section on environmental and land use non-compliance.

[3] The local governance body, or maslikhat, is elected by the inhabitants of the oblast or district.

Output 1.2. Regional (district and rural okrug) authorities and key groups of land users trained on implementation of principles and rules outlined in the NKL integrated land use plan

41. Under this Output the project will target institutional effectiveness and staff capacities of district and rural okrug akimats (land management, agricultural, natural resources & environmental management units), members of the district-level land use revision commissions representing key groups of land users in each target district, and district maslikhats. Other target groups will include regional inspections of the Land Management Committee of the Ministry of National Economy, River Basin Organizations (RBOs) of the Water Resources Committee of the Ministry of Ecology, Geology and Natural Resources of RK, district-level environmental regulation authorities and agricultural land users. This is not an exhaustive list of regional stakeholders and will be refined at the project start.

42. The project, jointly with district and rural okrug 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, agricultural, natural resources & environmental management departments. The program will be jointly developed with the National Agrarian Science and Educational Center (NASEC) including the Kazakh State University of Agriculture (KSUA), the Kazakh Agro-Technical University, the Kostanay State University named after Baitursynov, and the Kazakh Research Institute of Livestock Breeding and Fodder Production (Almaty). Practitioners from other countries with relevant experience will be invited to provide lectures on specific topics.

43. Training sessions for regional akimat staff as well as for other members of district-level land use revision commissions will run in parallel with hands-on experience for obtaining the skills, knowledge, and competences needed for comprehensive land use planning, effective coordination of relevant stakeholders, monitoring and enforcement of ILUPs as they go through the pilot process of ILU planning and implementation under Output 1.1, above.

44. The project will summarize results of the pilot land use planning exercise and produce a “how-to” guide with clear instructions to follow for the ILUPs development at district and rural okrug levels for replication purposes. This guide will constitute the project’s recipe for effective participatory landscape-level land use planning and management. The project will also produce educational video materials highlighting results and lessons learned of the land use planning exercise. Results and lessons learned from piloting the three ILUPs along with on the ground demonstration activities will be presented at district, oblast, and republic levels, at international conferences, as well as in a range of materials for wider outreach.

45. District akimats 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 trainers that will be covered by the GEF incremental funding. By project end, NASEC will officially endorse the professional training (incl. a how-to-guide, educational films and lessons learned) for the process of integrated land use planning & management and apply for regular financing.

Output 1.3. Inter-ministerial Task Force chaired by the Ministry of Agriculture oversees development and adoption of policies/regulations (new or amended) to enable implementation of NKL and LDN principles. This includes addressing detrimental fiscal subsidies in agriculture and discrimination in favor of large-scale farmers

46. The inter-agency mechanism for ensuring coordination of integrated land use planning and agro-environmental incentives, i.e. the Inter-ministerial Task Force Group, enabled through previous GEF support, was created in November 2015 by MoA’s decree. The Inter-ministerial group composition now includes representatives of MoA’s departments of land relations, crop and livestock production, information, MoA’s Committee for Veterinary Control & Oversight, Forestry and Wildlife Management and Water Resources Committees of the Ministry of Ecology, oblast and district level akimats as well as representatives of regional maslikhats. The project will revisit the Task Force Group’s composition to fine-tune its representation and tailor its SoW to the specific baseline development needs and project requirements. The likely additional members of Inter-ministerial Task Force Group will include representatives of Departments of Green Economy, and Environmental Monitoring & Information of the Ministry of Ecology, Land Management Committee and Budget Planning Department of the Ministry of National Economy, Kazhydromet, etc. In case of region-specific issues to be addressed by the Inter-ministerial Task Force Group, ad-hoc membership will be allowed. In such instances, the project will be able to bring representatives of agricultural, land, and natural resources departments of target oblast and district akimats, district-level maslikhats, and crop and livestock producers, etc. to sessions.

47. This Task Force, chaired by the Ministry of Agriculture which oversees development and adoption of policies/regulations, has so far made possible recent adoption of policies on: favoring access of smallholders to subsidies and credits, valuation of ecosystem goods and services, diversification of ownership of land, forests, and hunting areas,

norms and standards on green products and more efficient crop and cattle agriculture. These changes have been duly reflected in updated national agricultural programs. It also provided technical review to several state programs, which were then endorsed by the government. These include: a State strategy for Agro-business 2017-2021; a State programme for subsidies; a Law on organic farming; a state certification program for export of organic honey to China; and a master plan for the livestock breeding sector. So far, the inter-ministerial group proved itself effective in supporting the development and amendment of policies, rules, regulations and laws as well as lobbying for particular changes (e.g. subsidizing a purchase of mobile trailers and drilling wells at distant pastures for SMEs).

48. MoA will continue to chair the Inter-ministerial Task Force Group. It will convene twice a year to review proposed amendments or new policies, regulations and rules, to address issues related to detrimental fiscal subsidies, restructuring the insurance system to assist in crop production, and to discuss results and lessons learned from the pilot exercise on integrated land use planning in the target wheat producing districts. If needed, an ad-hoc meeting can be held to review any pressing issues. The project's experts, as members of the Inter-ministerial Task Force Group, will act in an advisory role. Prior to Inter-ministerial Task Force Group meetings, the project will hold consultations at oblast, district and rural okrug levels to gather feedback from larger stakeholder groups on proposed changes to land use policies and legislation.

Output 1.4. Capacities of national meteorological observation and forecasting services (hardware and human capacities) strengthened to ensure better decision making by land users in NKL

49. The project will invest in the expansion of the agrometnetwork in the key wheat producing oblasts of NKL, via co-financing of the update of agromet hardware and equipment for integrated land use planning and decision-making. The second direction of activities within this Output will be the capacity building of Kazhydromet staff to improve the quality of hydrometeorological services provided to agricultural and other land users. The detailed Output 1.4 strategy is presented in Annex 24.

50. **Component 2** is relying on partnership with Ministry of Agriculture and key other financiers of the agricultural support in Kazakhstan to develop new modalities of financial assistance that would become available to farmers. Unlike the BAU, the project approaches are going to take full account of green crop production principles, i.e. the principle of avoiding/reducing/ compensating for any loss in soil productivity, vegetation, wheat/other crop qualities (i.e. resilience to droughts), in hydrological state of ecosystems important for agriculture (i.e. non-deterioration of water table of neighboring wetlands and lakes, improvement in the span and condition of forests). The component seeks to develop "funding windows" primarily targeting SME farmers and women (contrary to BAU), and blending GEF financing with funding from state and non-state agricultural assistance programs, in support of green wheat production (or other crop in case of need of diversification). Specific outputs have been dedicated to three broad categories of intervention (1) improved technologies for annual productive cropland (primarily wheat), (2) improved perennial cropland, (3) pasture management. With GEF incremental funding under Output 2.5, extension services will be capacitated to deliver quality services to farmers on green production. Under Output 2.6, GEF incremental assistance will also be instrumental for support to green product marketing, working closely with food chain retain and wholesale companies. UNDP has a track-record of core-funded small projects which set up cooperation with wheat exporters and retail store companies; and the project collaboration with them will help boost markets for sustainable wheat as well as for crops that diversify the wheat production landscape where it is going to result in higher environmental sustainability and comparable economic profits. The resulting global benefits are hundred thousands ha of productive land under improved management, helping Kazakhstan realize its Bonn challenge target.

51. The green crop value chain is the focus for this Output. In order to provide the required foundation for transforming the existing value chain in Kazakhstan will require (1) financial instruments in place to ensure sustainable crop production; (2) coordination of involvement among private and public entities to properly focus the available governmental and other funding sources for actual production and extension services support, (3) demonstration of efficient and sustainable green crop production tequniques, (4) enhanced marketing efforts for the promotion of the NKL Green Wheat commodity label, both on the domestic and international scale, (6)regulatory reforms and sectoral incentives enabling market penetration (7) access to premium crop and forage markets and partnerships with food exporters and leading food chain companies. The GEF funding will be focused on the most effective elements that have been seemingly overlooked by prior attempts at assisting the Kazakh agricultural enterprises, especially related to distribution of knowledge-based information to agricultural enterprises, both small and large. A platform will be established to link Kazakh agricultural enterprises with the FOLUR Global Platform. This will lead to ongoing engagement between the Kazakh agricultural enterprises and national/international companies involved in green crop marketing and sales.

Output 2.1: Appropriate agro-environmental financial incentives and instruments to support sustainable food production are created and piloted in the Northern Kazakhstan Landscape developed and tested

52. In implementing this output, the Project will focus on pilot districts and demonstration projects in Akmola, Kostanai, North Kazakhstan and Pavlodar Oblasts to test agro-environmental financial instruments for diversification and improved management of productive croplands (Output 2.2) and perennial crop systems (Output 2.3), and sustainable livestock management (Output 2.4). These agro-environmental incentives will be designed to encourage uptake of LDN practices, technologies and prepare them for adoption after being tested through the Project's demonstration work.

53. During implementation of the PPG phase, two options for designing and running the agro-environmental scheme have been considered: (i) a scheme under a financial institution with adequate capacities, experience and financial resources to run an investment subsidy program; and (ii) a scheme under MoA operated and implemented by a target oblast and district administrations. The first 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 as well as the project's scope and timeframe.

54. Under this Output, jointly with the KazAgro, the project will launch a program offering effective financial instruments for land conservation and sustainable crop production projects in NKL as innovative mechanisms to attract LDN investments. During the PPG phase, such direct subsidy instruments as subsidizing the loan interest rate, the leasing transaction rate and the loan guarantee were discussed with the project's key partners for Component 2, the Ministry of Agriculture, Kazagro and the Inter-ministerial Task Force, and were approved[4]. The exact content of the proposed financial instruments will be refined and finalized during project implementation.

55. UNDP Kazakhstan has past and ongoing experience in negotiating, setting and running concessional finance mechanisms (US$ 1.5 million) and subsidy programs (US$ 5 million) for UNDP-GEF biodiversity conservation, energy efficiency and renewable projects. The project will follow the subsidy program approach used by the two ongoing UNDP-GEF energy efficient projects in Kazakhstan (see Annex 16 on Analysis of LDN incentives and financial instruments for details).

56. The subsidy program budget will total US$ 5.7 million with GEF contributing US$ 0.7 million and Kazagro contributing US$ 5 million[5]. The subsidy program will include a menu of suitable financial mechanisms (e.g. subsidized interest rates/leasing transaction/loan guarantees, which are yet to be confirmed during project implementation). Kazagro will allocate an additional US$ 0.5 million to cover operational costs of the subsidy program. The incremental GEF resources will provide: (i) assistance in marketing of the scheme to small and medium-sized farms in the NKL region; (ii) guidance on NDL pertinent approaches, methods, machinery and equipment; and (iii) monitoring and evaluation.

57. Tentative priority areas for agro-environmental subsidies include: (1) acquisition of machinery and equipment to combat land degradation (neutralization); (2) creation and development of seed farms; (3) introduction of organic farming practices; (3) acquisition of equipment and creation of infrastructure for the production of organic fertilizers; (4) purchase of equipment for agroclimatic forecasting; and (5) certification of sustainable farming production (including organic) and its products. A menu of effective and appropriate technologies, methods, machinery and equipment for the use in a target oblast through the subsidy program will be confirmed by the project after the implementation of at least a two-year full cycle of demonstration activities as presented in Outputs 2.2-2.4.

58. The institutional arrangements and subsidy disbursement system already exist at Kazagro. The project staff will be expected to exercise control over the scope of activities to be performed by the borrower/farmer and the GEF funds allocation.

59. The major steps under this Output will include:

i. Holding consultations and in-depth discussions with KazAgro to refine the project's plans on financial instruments and tailor the support provided by this institution to stimulate sustainable farming practices in crop production in NKL;

ii. Developing a detailed report on financial instruments and a concept paper for the subsidy program and presenting both documents to the Project Board for endorsement. This activity will be supported by a consultant with expertise in financial instruments. The output of that consultancy will be a report on financial instrument(s), which will include a detailed

[4] Protocol of UNDP Kazakhstan and MoA's Vice Minister on joint initiatives dd 12 June 2019, and the Protocol of the Task Force Group meeting on support for the current project and agro-environmental incentives and investments dd 14 October 2019.

[5] At project submission, KazAgro confirmed its interest in the proposed subsidy program and was proposed by MoA as the project's Responsible Party for introducing and implementing innovative agro-environmental financial mechanisms. There are several financial institutions in the country (e.g. DAMU, FFSA) who could potentially partner with the project in implementing this Output; the HACT for the RP was performed during PPG stage; other necessary capacity assessments/due diligence procedures for the potential Responsible Party will be ensured by UNDP during project inception, as required.

plan for operationalizing the mechanism, including its financial and accounting adherence to UNDP rules and requirements. This report will be submitted for UNDP-GEF review and approval;

iii. Endorsement of the list of eligible NDL activities/technologies/equipment for target areas;

iv. Conclusion of a Responsible Party Agreement (including the ToR) that creates a legal and institutional framework for the functioning of the subsidy program. The ToR will provide details on the design and implementation of selected financial instruments for the subsidy program, capacity building activities, administration of financial resources for the program, payment and reporting, etc.;

v. Designing specific rules for financial support to small and medium-sized farms in NKL detailing: (a) the type and size of the financial support; (b) requirements and evaluation criteria for prospective projects; (c) application and review process; (d) details on available financial instruments in the subsidy program; (e) monitoring of approved projects;

vi. Preparation and dissemination of the information package regarding the subsidy program and its terms to potential borrowers (e.g. via meetings, information leaflets and posters, workshops & seminars);

vii. Consultations with prospective borrowers on alignment of their project with list of eligible activities;

viii. Screening for and approval of thematically relevant business proposals before the release of a subsidy;

ix. M&E of the subsidy program via site visits and review of progress and financial reports;

x. Summarizing and publishing results and lessons learned regarding the subsidy program; sharing the knowledge beyond the NKL region;

xi. Conclusion of an agreement/MoU with the RP on continuation of this biodiversity microcredit program before project completion.

60. In addition to testing the effectiveness and feasibility 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. Detailed steps are presented as follows:

i. The project will conclude MoUs with akimats of target oblasts and implementers of demonstration projects that will constitute a framework for envisaged cooperation, roles and responsibilities of all involved parties.

ii. 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 (NDL 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. 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 oblast level authorities to encourage the desired environment-friendly behavior on the part of farmers.

iii. The project—jointly with district and oblast akimats—will devise proposals for agro-environmental subsidies as part of the regular exercise performed by local authorities[6] and submit them to the Inter-ministerial Task Force and MoA for consideration and approval. Proposals will consider the ILUPs developed under Output 1.1 and highlight the positive ecological outcomes of demonstrated NDL approaches under Outputs 2.2-2.4, as well as economic costing and results of sensitivity analyses. Together these will serve as a strong justification for the proposed agro-environmental measures.

iv. The project will review existing subsidy options under the Agribusiness 2021 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 countries, United States, Canada), and will use

[6] Oblast administrations submit subsidy proposals to MoA based on priorities of each region and needs on the ground. MoA then submits the proposals to the Ministry of National Economy for approval. Once approved, MOA sends these directly to oblasts. Oblast administrations disburse subsidies themselves or send transfers to district authorities for further disbursement.

results and lessons learned from the piloted agro-environmental subsidies at demonstration sites. The project's analysis and recommendations will be discussed with district and oblast akimats and submitted to MoA for consideration and approval to inform the next cycle of the Agribusiness program during its design and implementation.

61. District akimats have confirmed their interest in allocating funds for co-financing agro-environmental subsidies for the purpose of supporting demonstration projects. The GEF incremental resources will provide assistance in: (i) initial piloting of the agro-environmental investment schemes 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 2.2: Diversification and improved management of productive croplands for better incomes and less soil depletion**: technologies developed, tested and appropriate infrastructure established at targeted pilot sites*

and ***Output 2.3 Sustainable perennial crop systems as diversification away from unsustainable production of wheat and other annual crops***

62. The project PPG experts, in consultation with the relevant stakeholders, have selected 9 demonstration projects in three target oblasts (Akmola, Kostanai and Northen Kazakhstan), together covering an area of 485,522 hectares, of which 186,696.7 ha to demonstrate diversification and improved management of productive crops (Output 2.2.), and 298,825.6 ha on sustainable perennial crop systems as diversification from unsustainable production of wheat and other crops (Output 2.3). 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, application of moisture saving technologies including snow retention, on-farm fodder production, etc. 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. The demonstration projects are described in Annex 17.

Output 2.4: Sustainable pasture management

63. The project PPG experts, in consultation with the relevant stakeholders, have selected 10 demonstration sites in the four target oblasts of NKL of total coverage of 152,117 ha to showcase integrated approaches to sustainable livestock management. Demonstration projects include integrated pasture and distant rangeland management, establishment of distant rangeland management systems (watering points, mobile trailers for herders and mobile veterinary services for livestock at distant rangelands), enhanced fodder production and establishment of seed farms, restoration of degraded pastures/rangelands and meadows, sustainable use of silvopastoral ecosystems, sustainable value chain livestock production. The project will cooperate with the WB Sustainable Livestock Development Program for Results 2020-2025 to avoid overlapping in demonstration sites and will seek opportunities for knowledge exchange on pasture management. The demonstration projects are described in Annex 18.

Output 2.5 Extension services capacitated at the existing and newly developed local institutions and are implementing hand-handling support for farmers at target sites on LDN techniques

64. The baseline for extension services in Kazakhstan is summarized in Annex 19. Activities under Output 2.5 will include:

- Signing a tripartite memorandum with the National Agrarian Scientific and Educational Center and the National Chamber of Entrepreneurs "Atameken" for cooperation in developing the extension system, to ensure the continuity of experience and lay the groundwork for the extension system institutionalization.
- Conducting a gender-sensitive assessment of the needs and capacities of farmers' associations, research institutes, experimental stations, universities, economic development councils of rural counties, protected areas and akimats of pilot areas.
- Identification of 15 local partners whose extension capacities in the project's priority areas will be strengthened.
- Assisting in the gender-sensitive selection and training of personnel for 15 extension centers.
- Strengthening the technological capacities of the centers, including meteorological forecasting (link to the Output 1.4).
- Supporting the consultative and educational work of the centers. The Project will create a guide for farmers on environmentally and climate-friendly food production, develop a series of educational modules for workshops and will train - through trainings for trainers - employees of the centers on how to conduct workshops and webinars. This work will be

arranged in cooperation with the Kazakhstan Federation of Organic Agriculture Movements (KazFOAM). The main topics of the training modules are as follows, with the content varying depending on the sector and identified needs:

- climate-friendly food production and responsible value chains;
- adaptation of agriculture to climate change; and
- agriculture and integrated management of natural landscapes.

- Assisting the extension centers in signing memoranda of cooperation with local employment centers of the Ministry of Labor and Social Protection. This cooperation will help to provide access to information and educational materials of the Project (including through participation in webinars) for farmers in areas with weak internet coverage.
- Provision of information and consultation services to farmers by the centers.
- Together with the NASEC: support to a unified web platform that will be used by extension centers for more efficient provision of services and monitoring of their work. This platform will be an electronic tool that combines the following components: e-learning platform with information and educational materials developed by the Project for extension centers; a database with reporting information from extension centers; and integrated platform for webinars. During the Project, this tool will become a full-fledged IT infrastructure, which will become a connecting element to the National Experience Exchange Network (link to the Output 4.1).
- Develop a sustainability strategy for each extension center. This activity will help the centers to partially or fully commercialize their work and thus ensure the sustainability of the Project results after its completion.

Output 2.6. Cooperative platform with wheat exporters and retail companies

65. One of the key elements for the project is the establishment of a national platform as an industry-forming mechanism to ensure that environmental sustainability of wheat production and wheat processing in Northern Kazakhstan are reflected all along the supply chain. The platform will engage the government and business in upscaling the production of wheat (and related crops) and creation of a sustainable market for agricultural products which will drive positive shifts in the entire agro-industrial complex of the country.

66. The key objective for the platform is to link farmers to premium crop and forage markets and to retail/ wholesale companies, and to establish partnerships with food exporters and leading food chain companies. The cooperative platform of crop producers and consumers will focus on the production, marketing and sale patterns related to green wheat and other crops that are key to the sustainability of the wheat sector and crop production in general such as durum wheat, barley, maize, linen, rapes, sunflower, safflower, soya beans, mustard, chickpea, potato, carrot, cabbage, buckwheat, lentils and beans, beetroots, oats, millet, peas, mung beans (Asian beans) and sorghum – altogether 23 crops. The platform will also focus on the processed agricultural produce and waste products from these crops. The technical objective for the Platform support will be to ultimately increase the production capacity and profitability per hectare, reduce greenhouse gas emissions and also contribute to the sustainable use of land resources and LDN targets. The Platform will be established with collaboration from Kaznex and the National Chamber of Entrepeneurship of Kazakhstan and will improve access to relevant information and data for business startups, with a special focus on young business people and women. The Draft Concept for the Platform is presented as Annex 20 to this document.

67. The activities supported by the Green Wheat Platform will start with a comprehensive analysis of factors and elements of the enabling environment for production and penetration of green wheat into the market. In response to the principle barriers identified by the major retailers (Auchan, Magnum, Tamasha and Small), the Platform experts will recommend a set of regulatory reforms encouraging responsible crop production, and concrete sectoral incentives for market transformation, such as tax breaks, repatriation of investors' profits, price advantage etc. Upon completion of the regional value chain gap analyses, a call will be issued for firms to participate in activities aimed at addressing challenges and barriers identified in the review of business promotion covering broader regional actors. Lead firms (such as Auchan, Magnum, Tamasha and Small) will be identified, prioritization of interventions carried out, and a blue-print sub-sector map for each targeted value chain will be created.

68. Supported by the SWOT analysis of the crop production sector in NKL, the Platform experts will develop a corporate standard for responsible wheat production. Specific requirements and mechanisms for responsible production, processing and distribution of NKL wheat will be developed; a model for a unified certification system for farmers and large agricultural holdings in the sector will be offered for discussion on the Platform, and possible application.

69. An online benchmarking system will be offered to the Platform participants, from individual farmers to large and small retailers, as a tool for self-assessment of the respective supply chain elements against the sustainability (incl. social and economic aspects) and "green" criteria. An agri-benchmarking methodology for crop production in Northern Kazakhstan will be developed based on the performance assessment of 10 pilot farms for an entire two-year production cycle.

70. The Platform will explore options for labelling/ branding of green wheat in Northern Kazakhstan, and promoting marketing and sales through partnerships with food exporters and leading food chain companies.

71. The Platform will support the following assessments and tools as an increment to the relevant sectoral baseline developments:

- A marketplace (an online application with ongoing oversight) will be developed and introduced to sell crops under the principle of "farmer-trader-importer", with the inclusion of 6,000 Kazakhstani farmers, 1,000 processing enterprises, retailers, and logistics and trading companies (including foreign ones: Central Asia, Europe, China).

- A model of the e-agroloan tool will be developed (i.e., an application for quick short-term lending to farmers on the pledge of available products) for its subsequent handover to the quasi-governmental sector or a self-regulatory organization.

- A program for the modernization of crop production will be developed and handed over to the government (in the form of specific recommendations, with a financial assessment of all activities), taking into account the Platform work, all the information and analytics provided by all experts and stakeholders involved in the Platform activities.

- A methodology for food supply accounting, as well as commodity balances (supply & disposition), and quality assessment as a turnkey service for its subsequent regular moderation and publication (following the example of AAFC) which will be developed and handed over to the government (2-3 models).

- An analysis of the processing sector performed and handed over to the government (crop production only), along with several business models developed for small, medium and large agribusinesses for arranging the primary processing of their products and production waste (straw, cobs, flowers): oil and cereals output, packaging.

- An analysis of the logistics system (crop production only), "field-to-fork" supply chains, experience of the cartels of traders and farmers and experience of forward purchases will be performed and handed over to the government. Several business models for small, medium and large agribusinesses are to be developed to arrange the manufacturer's independent entry to the export market, creating cartels, and using the e-agroloan system.

- Emergency response and early information techniques will be developed and implemented for the events of pandemics, food shifts (food shortages/surpluses), pest outbreaks, epiphytotics, and staff imbalances.

72. In order to provide an international tie to the domestic Green Platform, the project will become a member of the Green Commodities Platform administered by UNDP. This will allow for interaction with other countries in developing and implementing the Kazakhstan Green Platform. The specific activities in this project will include the following steps:

-engagement through the FOLUR global platform and the UNDP Green Commodities Program with countries and platforms outside of the country as a means for scaling results and impacting the broader food system,

-outreach to the FOLUR Global Platform specialists regarding the design and functionality aspects of the domestic Green Platform to make sure that it provides an efficient tool for both sector-specific private sector players in Kazakhstan and the international private sector participation,

-becoming a member of the Green Commodities Community administered by UNDP, including support of active engagement in the Community of the project team, government counterparts as well as key project stakeholders so they can connect with the other FOLUR participating countries, to learn about and share relevant experiences (lessons),

-coordination with the global coordination unit housed in the FOLUR, global platform through UNDPs Green Commodities Program as well as FOLUR-specific collaboration mechanisms established by the global platform,

-connecting with similar country projects within FOLUR based on similar commodities and approaches in order to share resources for combined and collective knowledge management products, e.g. a collective guidance on sustainable crop management approaches,

-connecting with global level commodity and food supply chain initiatives and networks, primarily through the UNDP Green Commodities Programme and Good Growth Partnership, as well as through other means offered by the FOLUR global

platform while facilitating the linking of the project to global buyers interested in sourcing from jurisdictions that are advancing towards having deforestation-free commodity production and also to learn the latest best practices and policies of the global markets, and

-support for team members and government counterparts to participate in and speak at global conferences of relevance and represent FOLUR at these events while ensuring that the national commodity platform will be supported by the project and that it is connected to the global commodity initiatives (RSPO, WCF, ICO, GRSB, etc.) and serves as a principal forum for involving global and national supply chain stakeholders in the country.

73. **Component 3** builds on baseline investment in the field of conservation, aiming to address problems stemming from either encroachment of wheat/crop land on ecosystems or to boost ecosystem functions important to support crop agriculture in productive areas. Support to high nature value forest maintenance and management will be rendered, with GEF funding to improve the ecological condition of the pine and birch-aspen forests. In order to ensure sufficient quantity and quality of water for cropland, and prevent contamination, several lakes and wetlands are going to be restored. Given the highly mosaic nature of the NKL, the GEF project approach will rely on the "core area – corridor" approach, using the Integrated Land Use plan from Component I as a basis to build a network of High-nature value areas where crop land development must not happen. The project will then invest on the ground (jointly with Forestry and Hunting Committee and local stakeholders) in ecosystem restoration. This will help maintain the overall resilience of the NKL, and will improve the status of ecosystems which are important providers of ecosystems services to agriculture and home to several IUCN threatened species.

Output 3.1: A network of high-nature value ecosystems operationalized outside agricultural landscapes, consisting of core areas (hunting reserves, high nature value forest districts, wetlands, fisheries and local Protected Areas) and corridors connecting them, on 300,000 ha

74. Under this Output, the project will provide a pathway for the NKL landscape stakeholders for aligning the government's biodiversity conservation goals as declared in the Green Economy Concept and Action Plan with sectoral plans to ensure the long-term sustainable existence of the sector and preservation of the NKL flora and fauna. For this purpose, a network of high nature value ecosystems covering approx. 400,000 ha outside agricultural landscapes will be designed and operationalized.

75. The project's work on the ecological network will stem from findings and recommendations of the GEF-UNEP/WWF MSP transboundary project «Econet Central Asia» that focused on the long-term conservation of biodiversity in the Central Asia Ecoregions[7]. The project developed the ECONET scheme for all CA countries including Kazakhstan. Ten (10) areas of high biodiversity conservation value were identified by the Econet Central Asia project as keystones of the econet network in Kazakhstan, including one for northern Kazakhstan located in the forest-steppe zone of the Kokshetau Uplands of Akmola and Northern Kazakhstan Oblasts.

76. An eco-network of high natural-value ecosystems will be established in the NKL covering Akmola and Northern Kazakhstan Oblasts with various protection regimes to improve the connectivity and connectedness of the landscape consisting of a matrix of land use types (incl. agriculture crop and livestock production), forestry, hunting, fishery, PAs) and support population of flora and fauna species within the wider landscape with many users and demands as well as industrial, urban/rural and agricultural developments. Further details on the corridor are presented in Annex 25.

77. The project will design training programs for raising key competencies of PA, hunting management areas, forestry and fishery managers, along with land user groups (livestock breeders, fishermen, agriculturalists, women, etc.), eco-tourism operators, NGOs to comply with the requirements of the order and protect valuable steppe, meadow and forest steppe biotopes within the established ecological network "Kokshetau Uplands". The staff of the target PA, forestry and hunting units will be trained in management of HCVFs to minimize the existing, and to prevent potential, threats. As part of the capacity building training managers of PA, hunting areas, forestry and fishery units will update their management and business plans. If needed, the project's limited assistance will be provided in this regard.

78. As for buffer zones and sustainable use areas of the ecological network, the following activities will be implemented:

- The project will work with hunting and forestry units in the area to align wildlife and biodiversity monitoring and reporting of the two important landscape level players;

[7] WWF Russia website: https://wwf.ru/en/regions/central-asia/razrabotka-regionalnoy-seti-ekonet/

- The project will also complete an inventory of hunting concessions in the area of the ecological network and revise the zoning arrangements at a landscape level, if needed;

- Following the inventory exercise, the project will develop a proposal for optimizing land areas of hunting concessions to align with conservation objectives of the Kokshetau Uplands ecological network ;

- The project will assist hunting areas with updating their wildlife inventory and monitoring systems using the ecosystem approach;

- Finally, the project will select one hunting concession to test and demonstrate effective financial and economic mechanisms for sustaining its operation in the long run (e.g game breeding, introducing new forms of hunting concessions, etc.).

Output 3.2. Degraded birch-aspen patchy forests (kolki) and related forest ecosystems in arid areas in Akmola, Kostanay, North Kazakhstan and Pavlodar oblasts restored and converted to sustainable management

79. Under this Output, the project will assess sanitary conditions, biodiversity and economic values of birch-aspen kolki forest, field-protecting forest belts and floodplain forests which serve as buffers for productive landscape in the NKL. The project will conduct scientific and economic studies of soaked birch-aspen stands in the North Kazakhstan oblast covering 14,900 ha to provide a scientific substantiation for appropriate forest management of flooded and inundated forest areas. The project will study natural factors and causes of such soaking; trends and the extent of the negative impact of these phenomena on forests will be established; direction, speed and depths of changes in the hydrological regime and forest-growing properties of soils will be identified; and forests' ecological capacities and feasibility of drainage and reforestation will be determined.

80. The project will also compile a set of recommendations for planning mitigation and disease control measures for restoration of dead and degraded forests. In particular, the project will (i) study the prevalence of birch bacterial disease (*Erwinia multivora Sch.-Parf*) and its impact on the landscape, silvicultural and tax aspects of the stands in the forest fund area of 50,000 ha in Northern Kazakhstan; (ii) conduct an analysis of changes in the state of birch forests affected by the disease; (iii) investigate the effectiveness of existing forestry measures to combat the bacterial disease; and (iv) test sanitary and health measures to reduce the harmfulness of the disease and confirm their effectiveness for future use.

81. Jointly with KazNIILHA, the project will also conduct silvicultural, ecological and economic assessments of field-protecting forest belts of 30,000 ha and the Irtysh floodplain forests in the Pavlodar oblast covering 45,000 ha. The goal of these studies will be to monitor landscape ecosystems of anthropogenic and natural origin and identify changes in the silvicultural and ecological conditions that affect the productivity and sustainability of protecting forest belts and floodplain forests.

82. The following tasks will be completed within the proposed assessments for field-protecting forest belts:

- Analyze the current state and dynamics of field-protecting forest belts;
- Make an inventory of field-protecting forest belts;
- Perform a soil survey;
- Determine the sanitary status of field-protecting forest belts; and
- Develop recommendations for improving the sustainability of field-protecting forest belts.

83. The following tasks will be completed within the proposed assessment for the Irtysh floodplain forests:

- Analyze the current state and dynamics of the Irtysh floodplain forests within the borders of the Pavlodar oblast;
- Study the age structure of floodplain forests;
- Monitor the growth and development of natural stands (on permanent study plots);
- Determine the sanitary status of floodplain forests;
- Perform a silvicultural assessment of the natural regeneration processes;
- Develop silvicultural measures to support the natural regeneration of the main forest-forming species of floodplain forests; and
- Develop recommendations for the reproduction and conservation of the biological diversity of the Irtysh floodplain forests.

84. The project will use the lands of IP Kolosovsky to create field-protective forest belts covering 100 ha. Depending on soil conditions, plantations will include various tree and shrub species such as: pine, birch, maple, Siberian crabapple, elm, dwarf Russian almond, and Siberian pea shrub which will be grown at the planned private nursery of IP Kolosovsky (Output 3.3). The testing activities will be fully financed by IP Kolosovsky and cover the costs of cultivation of planting material, digging

and sorting of planting material, planting, nursing, transportation, reinforcement planting and wages of workers and regular employees.

85. The Project will organize and deliver training, on the basis of KazNIILHA, for 360 forestry specialists and protected areas staff covering the methods of organizing logging of broad-leaved trees, reforestation, biological protection to control pests and forest diseases. The training program will focus on improving and offering new competences necessary for professional activities and will raise the professional level as part of the existing qualifications of the forestry and SPNA staff, the purpose of which is to expand, deepen and update previously acquired theoretical and practical knowledge, in order to comply with increasingly stricter requirements for sustainable forest development and conservation of biological diversity.

86. Finally, the project will arrange reforestation of high conservation value forests covering 5,000 ha:1,000 ha in the Akmola Oblast, 2,000 ha in the Kostanay Oblast and 2,000 ha in the North Kazakhstan Oblast—which degraded as a result of fires, pests and forest diseases, excessive moisture (wet spots) and non-reforested logging sites. The project will use a scientific basis for making recommendations for restoration and implementation of reforestation techniques based on completed studies. The project staff will regularly monitor the restoration works in the selected regions to generate lessons learned, and to develop recommendations and instructions on the most effective techniques and approaches to HCVF conservation and management. Results of the restoration works will be widely disseminated among the staff of forestry units and PAs.

Output 3.3. Forest nurseries established for restocking harvested areas, creating snow and windbreaks to increase crop yields and improve hydrological conditions of adjacent rainfed crop lands, pastures and rangelands of NKL

87. Three (3) forest nurseries covering 36 ha will be created for growing seedlings of birch, pine and other tree and shrub species. These seedlings will be used for creation of forest plantations at logging sites, and burnt and dead plantations, as well as for restoration of protective forest belts on agricultural lands. These new forests will expand by 1,000 hectares per year. They will have a positive effect on crop yields and hydrological conditions on adjacent rainfed lands in the dry and meadow steppes of northern Kazakhstan.

88. The proposed forest management measures, as described below (i.e. creation of forest plantations), are based on projects for afforestation of non-forested lands and reconstruction of low-value forest plantations developed by the North Kazakhstan branch of the Kazgiproleskhoz Institute on the basis of scientific recommendations of KazNIILKHA, as well as reforestation on areas of non-regenerated logging sites, dead plantations and thin forests. The main species recommended by KazNIILHA for reforestation and afforestation in the project area include ordinary pine and silver birch which are the most valuable species adapted to local conditions. Species that are recommended for introduction include Siberian larch that grows satisfactorily in local conditions on plantations with ordinary chernozem and gray forest soils (loamy and sandy loamy). Species associated with the main breed are Siberian apple, mountain ash, ash-leaved maple, shrubs: Tartarian honeysuckle, Tartarian maple, golden and black currants, serviceberry, black chokeberry, ground cherry, red elder and others.

89. Under this Output, the following three (3) forest nurseries will be created:

1) A privately-owned nursery of 10 hectares in the Akmola Oblast. Project activities will include (i) preparation of design and planning documentation for nursery creation; (ii) drilling and installation of a well; (iii) enclosing the nursery; (iv) arranging an irrigation system; (v) constructing technical facilities, and (vi) purchasing machinery and equipment, seeds of wood and shrub species. The established private forest nursery is expected to have the following level of production: annual cultivation of standard two-year-old seedlings of birch in the amount of 400 thousand pieces, two-year-old pine trees - 1000 mln pieces, two-year-old shrubs - 200 thousand pieces, all of which will ensure annual restocking of logging sites, burnt or degraded forests as well as creating or restoring wind and snow protection belts on 250 ha. GEF will contribute US$ 200,500 and IP Kolosovsky will provide co-financing of US$198,400, or approx. 50% of the total budget.

2) A public forest nursery of 12 hectares in the state forestry "Esilskoye" in the Northern Kazakhstan Oblast. The project will cover the costs of preparation of design and planning documentation. The established nursery will have the following level of production: annual cultivation of 1,200 thousand pieces of two-year-old standard seedlings of birch and 400 thousand pieces of shrubs (currants, cherries and others), all of which will ensure annual restocking of logging sites, burnt or degraded forests as well as creating or restoring wind and snow protection belts on 250 ha. GEF will contribute US$ 184,756 and the state forestry "Esilskoye" will provide co-financing of US$ 60,356, or 33% of the total budget.

3) A public forest nursery of 14 hectares in the state forestry management unit "Prigorodnoye" in the Kostanay Oblast. The established nursery will have the following productivity: annual cultivation of 1,500 thousand pieces of two-year-old standard seedlings of pine, 800 thousand pieces of two-year-old seedlings of birch and 350 thousand pieces of shrub species

(currants, cherries and others), all of which will ensure annual restoration of 500 ha of logging sites, degraded forests as well as creation of wind and snow retention belts. GEF will contribute US$ 269,043 and the state forestry management unit "Prigorodnoye" will provide co-financing of US$ 124,236, or 32% of the total project budget.

Output 3.4. A forest fire prevention and control protocol developed and embedded in the operation of forest district and emergency authorities

90. Although current forest policies in Kazakhstan are mainly focused on fire suppression, some fire prevention activities are carried out by CFW. Fire prevention activities and features can be summarized as follows: (1) security roads and fire breaks which prevent the spread of fires and reduce the continuity of fuels; (2) prescribed logging of dry and old forest stands; (3) educational training and provision of extension services targeting the following groups of stakeholders: general public, forest villagers, shepherds, children and young people, technical staff and fire workers, hunters, tourism participants (tourists and tourism workers).

91. To improve the forest fire prevention and control measure in the target forestry management units and PAs, the project will build its work on the lessons and practices demonstrated for improved management of forests in the Forest Protection and Reforestation Project implemented by the World Bank (closed in 2014). That project achieved significant progress in enhancing firefighting capacity in Semey Ormany, with comprehensive fire protection/management investments that included a state-of-the-art forest fire control information system (FFCIS), enabling faster forest fire detection as well as much quicker response times.

92. The project's assistance under this Output will be two-fold: (1) hardware assistance to targeted forestry management units and PAs in NKL enabling faster forest fire detection and prevention; and (2) soft assistance consisting of the review and update of existing fire prevention and control protocols, design or update of forest management plans of forestry units or sections of PA management plans on forest fire prevention and control, and capacity building training for targeted stakeholders and local communities residing in the surrounding areas. The content of the capacity building programme is presented in Annex 23. The project will consider gender specific awareness about fire prevention measures, participation of community members in fire management measures, rules of conduct in case of fires, etc.

Output 3.5: Restoration of the productivity of degraded lakes and wetlands in northern Kazakhstan

93. The project has selected 3 wetlands ecosystems with a total area of 4,600.7 ha in Akmola, Kostanai and North Kazakhstan Oblasts where methods for restoring productivity of degraded wetland areas will be demonstrated including the removal of sludge and debris deposits and its use as a subsite for chemical fertilizers used in crop agriculture in the demonstration projects targeted by Outputs 2.2 and 2.3. The project already has confirmation regarding the demand for the sapropel organic fertilizer to be extracted in the demo projects for approx. 65,000 ha of crop and legume lands in the NKL. The demonstration projects will also ameliorate the integrity of the wetland ecosystems by improving their hydrological regime, the inflow of water, habitat conditions for migratory birds, etc. Restoration activities will cover wetland ecosystems of the Saumalkol Lake, Taza Tokan wetland area and the Aksuat lake system.

94. Various criteria were used to identify pilot sites described as follows:

- Possibilities for integrated implementation of proposed demo activities under Output 3.5 and demonstration projects under Outputs 2.2.-2.4 and link to Output 1.1 on integrated land use planning,
- Willingness of landowners and/or users to be partners and provide co-financing,
- Alignment with relevant government/regional 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 experiences.

95. The project will be supporting the following pilot projects:

-Restoration of the productivity of degraded wetland ecosystems of the Saumalkol Lake,

- Restoration of the degraded wetland area (Taza Tokan) productivity and improvement of their hydrological regime,

- Improving the ecosystem integrity of wetlands on the area of 2,000 ha of the Aksuat lake system of the Naurzum State Nature Reserve.

A detail description of the restoration pilots is presented in Annex 21 to this document.

96. **Component 4** will use GEF funding to enhance the awareness of farmers, local communities, government and the general public of the benefits of green production. It will investment in knowledge building and dissemination through professional vocational training and academic curricula, as well as through targeted learning and knowledge events. For the transformation change to happen, it is critical to deliver appropriate information about the green production at the national level. The project will generate a set of knowledge products around the experiences of promoting sustainable wheat, landscape restoration and ecosystem conservation. These products will contribute to the Global IP Platform and IP knowledge pull, through the Green Commodities Community of Practice, which is a platform for knowledge sharing, and a tool for connectivity, learning, dialogue, and capacity development.

97. This component encompasses the project's engagement at the global level with the FOLUR program; a key element of this will be participation by the project team and project practitioners in the Green Commodities Community of Practice. There will be exchanges with other FOLUR projects, particularly with similar situations and/or the same commodity. Project teams will actively participate in the FOLUR community of practice and, along with government counterparts represent the project in global fora. This will also include contributing lessons to the global platform and its knowledge sharing efforts both across FOLUR and directly to the wider commodities and food system community. The project will engage in Pillar A of the FOLUR Global Platform, including ensuring the allocation of staff time to participate in trainings and capacity building events. The project will consider where national experts can contribute to global or regional training events.

98. The project knowledge management (KM) activities under Component 4 will support enhanced communication and coordination between state agencies and land users within the Northern Kazakhstan Landscape and beyond. In addition, the Project will support the inclusion of sustainable agricultural production in vocational and academic education curricula. Project activities of this Component will also be aimed at raising awareness among farmers, local communities, government bodies and the public at large about the benefits of green production. The project will focus on raising the awareness and capacities of women involved in agricultural production. Based on the results of demonstrations, the Project will generate, synthesize and disseminate knowledge which will also form the basis of educational programs for farmers (link to Output 2.5). The project will develop information and educational products, which will be based on the best practices in the field of sustainable wheat production, landscape restoration and ecosystem conservation, adapted to the conditions of the North Kazakhstan Landscape. These products will also be used to communicate project objectives at the national level. The project will synthesize Kazakhstan's experience in the field of green production and share this experience with other projects of the FOLUR Impact Program. The project will also engage in Pillar A of the FOLUR Global Platform, including ensuring the allocation of staff time to participate in trainings and capacity building events. In addition, the project will consider where country project learning or experts can contribute to global or regional training events (one thematic area for that could be extension services to farmers). The project will participate in needs assessment surveys initiated by the FOLUR Global Platform related to private sector engagement needs and opportunities. Drawing on inputs from the FOLUR Global Platform, the project will bring learning back to relevant national audiences, stakeholders and commodity value chain actors. Through participation in Communities of Practice and regular dialogue with IAs, Core Partners and the Global Platform the project will work with the FOLUR Global Platform to identify and share key public sector issues limiting the FOLUR agenda from scaling in-country.

Output 4.1. National experience exchange network (Association of Sustainable Wheat Farming) for sustainable food production are established at the Ministry of Agriculture and maintained after the project. The exchange network is integrated with the Global IP Platform and other participating countries.

99. The project will contribute to creation of a National Experience Exchange Platform to share the experience in sustainable food production. This mechanism will be built around a single information and education web platform (Output 2.5) and the Green Wheat collaboration platform (Output 2.6). The project will plan this work in close cooperation with the National Agrarian Scientific and Educational Center (NASEC) of the Ministry of Agriculture to ensure the effectiveness of this mechanism and its use after the end of the project. The key objective for the experience exchange network will be to scale up, mainstream, and incentivize improved practices for better landscape-level outcomes and greener supply chains for wheat and associated commodities in Kazakhstan. The concept for the network, which will be finalized within the framework of the Project, is presented in Annex 22 to this document. The National Experience Exchange Platform will be integrated with the global IP FOLUR Platform.

Output 4.2. Long-term vocational and academic training curricula and programs in agricultural colleges and university incorporates modules on sustainable food production concept principles and application, sustainable forest, wetland, lake management, and biodiversity conservation in productive landscapes for sustainable food production. Around 360 SME enterprises in agriculture capacitated to produce, market and sell green products.

100. The experience gained while implementing demonstration activities under Outputs 2.2-2.4 and 3.5 will be analyzed, systematized and processed for further incorporation into curricula of vocational and academic training of specialists in the field of agriculture, forestry, protected natural areas, practitioners in the field of hunting and wetland management in government agencies and NGOs. The project will develop educational modules in three general areas, which are specified, as follows, as envisaged activities: (i) Principles of sustainable food production and their practical application; (ii) Sustainable management of forests, wetlands and lakes; and (iii) Conservation of biodiversity in productive landscapes for sustainable food production (specific topics will be clarified) for incorporation into existing higher education and professional development programs.

101. There are at least five universities operating on the project territory that train specialists for the agricultural and environmental sectors: Kazakh Agrotechnical University named after S.Seifullin (Nur-Sultan), Kostanay State University named after A. Baitursynov, Pavlodar State University named after S. Toraigyrov, North Kazakhstan State University named after M. Kozybaev and Kokshetau State University named after Sh. Ualikhanov. Educational modules will be developed jointly with North Kazakhstan State University (departments of "Agronomy and Forestry" and "Food Security") and other interested parties and incorporated/proposed for incorporation in the bachelor and master programs of relevant agricultural specialties. The methodological capacities of the Higher Technical College (Shchuchinsk, Akmola oblast) will be leveraged to develop training modules for incorporation in professional development programs (in partner organizations). The modules will be tested in order to train at least 360 specialists who will obtain systemic sustainable production knowledge. The Project will prepare the necessary methodological base for their incorporation in curricula and make a presentation of modules to universities and vocational education organizations of the North Kazakhstan oblast.

102. The following activities are envisaged under this Output:

- Continual systematization and analysis of generated results and lessons learned of the project's demonstration activities under Outputs 2.2-2.4 and 3.5 and knowledge gained through the exchange of experience, including through the FOLUR Impact Program;
- Hold working meetings with the above listed agricultural universities and other partners of the Project to identify interests and capacities for training modules development;
- Together with the North Kazakhstan State University (NKSU) develop selected thematic modules and a methodological base for inclusion of modules into the existing higher education curricula. Modules will be tested during one academic year at NKSU, finalized and incorporated into the NKSU curriculum.
- Together with the Higher Technical College (HTC) develop selected thematic modules and methodological base for inclusion of modules into existing vocational education curricula. Modules will be tested during one academic year at HTC, finalized and incorporated into the HTC program.
- A methodology for an ad hoc intern program for students of agricultural departments on the farms of the target landscape will be developed, agreed to with local executive bodies and industry associations, and tested. A list of enterprises offering the intern programs for students will be created.
- Conducting workshops and presentations of tested and finalized modules for replication by other educational institutions within and outside the target landscape.

Output 4.3. At least 25 events including workshops, media events, awareness raising or advocacy activities (in cooperation and coordination with the Global IP Platform) including gender equity in SLM, conservation and sustainable use of important natural ecosystems (forests, wetlands, lakes) in productive landscapes for sustainable agricultural production are organized in support of sustainable food production principles.

103. The project will deliver an information campaign to raise public awareness of the importance of natural ecosystems preservation and restoration and sustainable food production for improving the country's food security and rural living standards. The project will develop and implement a public relations plan that will include at least 25 activities for target groups. Among other things, the Project will organize side events at the annual forum of rural women held by the Agrarian Union of Women of Kazakhstan, media tours to demonstration/pilot sites and activities to incentivize the demand for sustainable agricultural products.

104. The project will prepare and disseminate reports that systematize project experience, best practices and lessons learned. They will be delivered in a variety of formats, such as technical reports, case studies and lesson learnt notes on various topics. The publications will contain information on the methodologies applied, an analysis of the difficulties encountered, success stories and conclusions on the contribution of the Project and its partners to achieving food security

and environmental sustainability of the Republic of Kazakhstan. The project will make sure that all information and educational materials are released in two languages - Kazakh and Russian.

105. The knowledge products developed within the framework of the Project will be transferred to the Project beneficiaries through a single informational and educational web platform (Output 2.5) and through the National Experience Exchange Network (Output 4.1) with involvement by governmental and other interested parties and other similar projects in Kazakhstan.

106. Activities envisaged under this Output will include:

- Development of a communication plan, identification of target groups and communication channels;
- Conducting awareness-raising workshops for target groups;
- Conducting media tours of demonstration/pilot sites, with priority being given to participants from mass media specializing in agriculture;
- Campaigning to incentivize demand for sustainable agricultural products; will be carried out jointly with the Kazakhstan Federation of Organic Agriculture Movements (KazFOAM) and will include production of a series of animated films (at least four, from one to three minutes each) on sustainable production;
- Organization of side events as part of the annual rural women's forums;
- Conducting a national contest among rural women who have established themselves in agriculture, and publication of a brochure on women's entrepreneurship and food production;
- Holding a press conference on the Project results at the Central Communications Service and at the final conference (link to Output 4.1); and
- Publication of project materials in Kazakh and Russian.

107. The Project will contribute to learning lessons for wider replication, leveraging and disseminating FOLUR IP actions and results through respective country and other platforms and knowledge networks to scale up, mainstream, and incentivize improved practices for better landscape level outcomes and greener commodity supply chains. The project will share knowledge and lessons learned within project landscape, value chain actors and relevant national audiences. Project experience will be actively shared through coordination with Global IP Platform and IP participants, through the Green Commodities Community of Practice. The project will collaborate with the FOLUR Global Platform to identify joint Technical Assistance and training needs to fill gaps or implement innovations. The project will also review and provide feedback on guidance notes developed through the FOLUR Global Platform, and will work to integrate these KM elements into project implementation. As a complement to the quantitative reporting, the Project will document success stories, and provide other input as contributions to the FOLUR IP annual overview progress report. The task team lead (or an alternate) will participate in an annual face-to-face Global Platform meeting with all Implementing Agencies, Country Projects and partners.

3.2 Partnerships, Stakeholder Engagement, and Coordination

108. Partnerships: The overall project partnership approach is based on the fact that success across such a wide geographic area, addressing complex ecological issues, can only be achieved through extensive cooperation and partnership, including involvement by the private sector. At the national, oblast, rayon, and rural okrug levels, the project will engage multiple and diverse institutions, organizations and stakeholder groups whose participation and contribution is critical for the success of the project. Highlights of the project's stakeholder partnerships, current and expected roles of identified stakeholders as well as relevant engagement mechanisms, are summarized in Table 1 below and in Annex 12 of this Prodoc, within the Comprehensive Stakeholder Engagement Plan.

109. Stakeholder Engagement: The project is applying multiple strategies and mechanisms to ensure stakeholder engagement. First and foremost is the Project Board (as discussed further in the Section on Governance and Management Arrangements), involving the MoA and FWC as the primary beneficiaries, and UNDP as the supplier. UNDP has a long history of collaboration and successful project completion, including multiple previous GEF-funded projects with both the MoA and FWC.

110. Second, the project will continue its support to the Inter-agency Task Force Group consisting of representatives of government agencies and quasi-government institutions in agriculture, land, water, forest resources management, leading

research and analytical centers, oblast & rayon level authorities, associations and unions representing farmers and other local groups. Engagement of members of the Task Force Group will be critical for reviewing proposed amendments or new policies, regulations and rules, addressing issues related to detrimental fiscal subsidies, restructuring the insurance system in the crop sector, discussing results and lessons learned from the pilot exercise on integrated land use planning and demonstrating land sustainability, and forest and wetland use practices in target wheat producing areas for replication and scaling up.

111. The Green Wheat Platform and the National Experience Exchange Network will represent another stakeholder engagement mechanism in the project. The platform (Output 2.6) will link farmers to premium crop and forage markets and retail and wholesale companies and establish partnerships with food exporters and leading food chain companies in the country. The National Experience Exchange Platform (Output 4.1) will focus on sharing the experience in building sustainable food production.

112. There are multiple stakeholder types on the oblast, rayon and rural district levels at the project field sites. These include representatives of oblast, rayon, and rural district akimats, rayon level maslikhats, administrations of PAs, forestry units, and hunting and fishery entities, individual farms, agricultural businesses, associations and unions of farmers & agricultural producers and women, and NGOs. The project will support the functioning of rayon-level land use revision commissions in the three target rayons of Akmola, Kostanai and North Kazakhstan Oblasts and will develop a platform to facilitate and engage in stakeholder consultations during the pilot process of integrated land use planning and implementation of on-the-ground conservation/restoration activities in productive and natural landscapes of the three target rayons as specified in Outputs 2.2, 2.3, 2.4, 3.2 and 3.5.

113. In addition, the project has multiple education and awareness activities planned that will engage local communities and stakeholders in addressing land sustainability, livestock management, and conservation of biodiversity. Formal and informal partnerships will be developed and established with gender balance and gender mainstreaming approaches in mind. The project team will ensure that gender-mainstreaming aspects are addressed and integrated throughout all aspects of the project's stakeholder engagement activities.

114. The project will highlight, at various times, the mechanisms and channels of communication that stakeholders may employ if they have any grievances related to the social and environmental impacts of the project. For example, this point will be identified during the project inception workshop, and throughout the project education and awareness activities. Note that there are no recognized indigenous peoples in Kazakhstan.

Table 1. Summary of Stakeholder Engagement

Stakeholder	Role and Engagement Mechanism
Government agencies, institutions, national companies	
Ministry of Agriculture: - Department of production and processing of crop products - Department of production and processing of livestock products - Department of Veterinary, Phytosanitary and Food Safety - Department of financial instruments and microcredits - Department of agricultural food markets, organic	MoA is the key government institution responsible for regulating the agricultural sector and key provider of national baseline assistance in agriculture. The MoA is the central government executive body responsible for agriculture, farming, livestock management, irrigation, seed and grain market regulation, and agricultural sciences. One of the priority policy directions for the MoA is developing a system of agricultural subsidies to prevent land degradation and drive wider implementation of adaptation and resource-saving technologies in agriculture that seek to reduce greenhouse gas emissions. Of particular relevance for the project is the MoA work on improved access to financing for green farming, capacity building and extension services for farmers, agricultural guarantees and the insurance system in the regions affected by climate change, sustainable land management and agriculture diversification in the grain-growing regions of Kazakhstan. The MoA develops and implements state policy and programs on agriculture including the Agribusiness 2021 Program. Representatives from MoA will chair the Project Board to oversee and guide project implementation. As part of its legislative function, its representatives will sit on the Inter-ministerial Task Force Group to review proposed amendments or new policies, regulations and rules, to address issues related to detrimental fiscal subsidies, restructuring the insurance system to assist in crop production, and to discuss results and lessons learned from the pilot exercise on integrated land use planning in the target wheat producing rayons (Output 1.3). The Ministry will contribute actively to the development (platform framework, standards, etc.) and operationalization of the Green Wheat Initiative Platform and engagement of wheat exporters & retail companies (Output 2.6), review and upgrade of the farmers' extension and information sharing system (Output 2.5), implementation of demonstration projects on improved and sustainable management of productive croplands, perennial crop and livestock management

products and technical regulation - Department of public services development and digitalization in the agricultural sector	systems (Outputs 2.2-2.4) as well as the creation of a National Experience Exchange Platform for scaling up, mainstreaming and replicating the project's demonstrated approaches to integrated land use planning, effective and feasible approaches for sustainable farming in crop and livestock production and resulting greener supply chains for wheat and associated commodities in the country (Output 4.1). Finally, the MoA will serve as the key agent for the project's advocacy, media and awareness raising events promoting the agenda of sustainable farming and green supply chains in agriculture as well as the project's generated results & lessons learned.
KazAgro National Holding and its subsidiary JSC Agrarian Credit Corporation (ACC)	KazAgro National Holding will sit in on the Working Group (WG) for the Green Wheat Platform to discuss its framework and guiding documents, will provide expert advice on development of its standards and instruments, and publicize the Green Wheat Platform at domestic and international events. The Agrarian Credit Corporation (ACC) implements state policy on the development of affordable lending and stimulation of the development of competitive entrepreneurship in rural areas. The ACC will partner with the project under Output 2.1 and will assist the project with designing and running a subsidy program (subsidized interest rates or leasing transaction costs, or loan guarantees) offering effective financial instruments for land conservation and sustainable crop production projects in NKL as innovative mechanisms to attract LDN investments. The ACC will offer its institutional arrangements and subsidy disbursement system for this new subsidy program.
National Company Food Contract Corporation (NC FCC)	NC Food Contract Corporation (FCC) manages procurement of agricultural products and commodities delivered to government reserves, implements forward procurement, contributes to the stabilization of the domestic grain market and provides export support to domestic grain producers to ensure the country's food security. NC FCC will provide assistance in organizing an intersectoral dialogue, expert support for development of documents for the Wheat Initiative Platform to be established under Output 2.6., and publicize the Green Wheat Platform at domestic and international events.
Committee for Land Resources Management of the Ministry of Agriculture and its oblast and rayon-level branches	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, etc., at the oblast level. The Committee for Land Resources Management will be one of the key players in development of integrated land use planning frameworks in the three pilot rural okrugs and monitoring compliance of rural okrug stakeholders with the requirements of approved ILUPs under Output 1.1. The Committee's oblast and rayon level representatives will contribute and participate in training on integrated land use planning, requirements and compliance, and sustainable land and livestock management practices (Outputs 1.3. and Output 2.5). The Committee's representative will sit on the inter-agency Working Group (Output 1.3) to review policies, rules and regulations on land management, results and lessons learned from the integrated land use planning exercise and from demonstration projects on sustainable crop production and livestock management. The Committee will participate in the project's events related to creation of the Green Wheat Platform, including its design and advancement of "responsible wheat producer" and "agribusinessman" labeling. The Committee will be actively engaged in the consultative process during design and operationalization of the ecological network "Kokshetau Uplands". It will participate and be consulted at stages of defining the network's boundaries, conducting an inventory of hunting concessions in the area of the ecological network and revising the zoning arrangements at a landscape level (Output 3.1).
Forestry and Wildlife Committee of the Ministry of Ecology, Geology and Natural Resources	The Forestry and Wildlife Committee (FWC) is the key government institution regulating biodiversity conservation, including the establishment and management of protected areas, hunting areas and forests. It oversees and seeks state funding for the establishment and/or expansion of PAs, including negotiations with local authorities and stakeholders, as accomplished through its regional offices, along with preparation and justification of the relevant budgets. FWC ensures conservation and recovery of threatened and endangered species and that an efficient information management system is in place. The FWC is the second important partner in the project overseeing implementation of Outcome 3 of the project. A representative of the FWC will sit on the Project Board as well as the inter-ministerial WG. It will lead and benefit from the project's work on promoting the eco-network of Kokshetau Uplands, particularly the design and creation of a PA and ecological corridor for biodiversity conservation purposes. The FWC will review and approve, through its Scientific and Technical Board, any proposed and tested restoration methods for kolki and other degraded

	forests, plain flooding and wind/snow protection forests, degraded lakes and wetland ecosystems, etc. Overall, the FWC will benefit from a greater connectivity and connectedness of PAs and high value biodiversity conservation areas in NKL, as well as enhanced capacities of PAs, forestry units, and hunting and fishery entities.
Republican State Enterprise (RSE) "Kazhydromet" and its regional offices in Akmola, Kostanay, North Kazakhstan and Pavlodar oblasts	Kazhydromet provides the agricultural sector with agrometeorological monitoring services and data by making agro-meteorological observations. Kazhydromet will fund baseline investments in agrometeorological equipment in the target oblasts of the NKL along with related O&M and staff costs. Also, as part of the RK government "Smart technologies" initiative, Kazhydromet will sign agreements with Akimats of Kostanai and Akmola Oblasts for pilot projects for provision of targeted agromet services to farms and agricultural enterprises in these two regions. Kazhydromet will also train field technicians from the areas where additional posts will be installed and will participate in the design of training modules for the farmers' extension services (Outputs 1.1., 1.3 and 1.4 and Output 2.5).
River Basin Organizations (RBOs) of the Water Resources Committee of the Ministry of Ecology, Geology and Natural Resources of RK	This Committee and its territorial organizations – Irtysh, Ishim, Nura-Sarysu and Tobol-Turgai River Basin Organizations (RBOs) are responsible for management of water resources to meet the needs of water users in different sectors of the economy in an environmentally sustainable and economically optimal way. The Committee and its four territorial RBOs will contribute to the development of landscape-level planning frameworks, specifically contributing to discussions on efficiency in water use in agriculture (Output 1.1). Its representatives are expected to sit on the inter-agency Working Group (Output 1.3).
National Agrarian Science and Educational Center (NASEC)	NASEC serves as the sole organization for supporting the interaction between agricultural research institutions, government departments and agricultural companies and farms. Jointly with the National Chamber of Entrepreneurs (Atameken), NASEC will lead the review and upgrade of the farmer's support system in the country mainly through identification of regional partners for extension services and strengthening their capacities, provision of information and consultation services to farmers, development of a unified web platform that will be used by extension centers for more efficient provision of services and monitoring of their work (Output 2.5) and serve as a connecting element of the National Experience Exchange Network to be established under Output 4.1. The Center will benefit from the project's training programs related to economically effective and sustainable agricultural practices, effective online and offline methods for educating and training farmers and development of its sustainability strategy in the long run. NASEC's representatives are expected to participate in thematically related meetings of the inter-agency Working Group (Output 1.3).
Analytical Center of Economic Policy in Agricultural Sector (ACEPAS)	ACEPAS conducts research and analytical works related to agricultural economics and it focuses on development of the agricultural sector through provision of high-quality information and analytical products. The Center will contribute to the analysis of existing agricultural subsidies and design of agro-environmental schemes under Output 2.1. In particular, ACEPAS will be engaged in reviewing existing subsidy policies under Agrobusiness 2021 and drafting recommendations on how existing policy options can be amended to support agricultural producers in switching to more sustainable and environmentally friendly land use practices. Its representative will sit on the Project Board and the inter-agency Working Group to review proposals for agro-environmental subsidies by target oblast akimats (Output 1.3)
National Chamber of Entrepreneurs Atameken and the Center of Agrarian Competence (CAC)	Atameken and the Center are implementers of the Republican Budget Program "Providing information and consulting services at no cost to te agribusiness entities", and key agents for the delivery of thematic on-farm training and lectures to farmers under the national extension and information sharing system. Jointly with NASEC, Atameken and the Center will lead the review and upgrading of the farmer's support system in the country mainly through identification of regional partners for the extension system and strengthening their capacities, provision of information and consultation services to farmers, development of a unified web platform that will be used by extension centers for more efficient provision of services and monitoring of their work (Output 2.5) and serve as a connecting element of the National Experience Exchange Network to be established under Output 4.1. The Center will benefit from the project's training programs related to economically effective and sustainable agricultural practices, effective online and offline methods for educating and training farmers and development of its sustainability strategy in the long run. Atameken's and CAC's representatives are expected to participate in thematically related meetings of the inter-agency Working Group (Output 1.3). Atameken is seen as the key project counterpart for the design and creation of the Green Wheat Platform Initiative (Output 2.6). In particular, it will provide assistance in organizing an intersectoral dialogue as well as technical and expert support for development of Platform relevant documents, and will provide a platform for regional and

	national stakeholders to discuss the Platform concept, its guiding principles, participation, activities, etc.
Regional and local administrations	
Akimats of Akmola, Kostanai, North Kazakshtan and Pavlodar Oblasts Akimats of Naurzum rayon of Kostanay Oblast, Mamlyutskiy rayon of North Kazakhstan Oblast and Birzhansalkskiy rayon of Akmola Oblast Akimats of Karamendinskiy rural okrug, Belovskiy rural okrug and Makinskiy rural okrug	Oblast akimats represent the executive branch of the government and are in charge of promoting government polices at the local level while considering specifics of each region (i.e. region-specific policies and programs). Target Oblast akimats will grant official endorsement of pilot land use planning frameworks and LDN demonstration projects, facilitate cooperation of all involved parties in the implementation of land use planning schemes and demonstration projects under Outputs 1.1, 2.2.-2.4. Akimats will assist with development of proposals for agro-environmental subsidies (Output 2.1) and, if needed, will attend meetings of the inter-agency Working Group to present and discuss subsidies or any other relevant issues. Representatives of Akimats will be actively consulted by the project during design and operationalization of the eco-network "Kokshetau Uplands" (Output 3.1) including the creation of PAs of regional or local importance and an ecological corridor for biodiversity conservation. Oblast Akimats will grant official endorsement of land use projects for PAs of local importance and allocate land for planned PAs. Oblast akimats will, as well, be beneficiaries of the project's generated results and lessons learned from piloting ILUPs, demonstrating sustainable land use practices, effective agro-environmental schemes and advocate for their replication throughout respective oblasts, regional representatives of the national extension system and the National Experience Exchange Network (Outputs 2.5 and 4.1). Rayon (district) and rural okrug akimats represent the lower levels of the government's executive branch. They implement policies and programs adopted at oblast level. These akimats will lead the development and implementation of the landscape-level land use plans by providing coordinated inputs of all stakeholders under Output 1.1, and seeking approval of oblast akimats and rayon level maslikhats. Its representatives will benefit from the project's designed training programs for integrated land use planning and management, zoning, monitoring, etc. Akimats will co-finance demonstration projects under Outputs 2.2-2.4 in selected rural okrugs related to sustainable land and pasture management, and restoration of degraded lakes & wetlands. In particular, the district akimats will provide subsidies for the purchase of agricultural equipment/machinery and elite seeds to complement GEF financing. Akimats will assist with development of proposals for agro-environmental subsidies (Output 2.1.). Its representatives will be actively consulted during design and operationalization of the eco-network "Kokshetau Uplands" and will assist in community mobilization and awareness activities (Output 3.1). Rayon and rural okrug akimats will benefit directly from the project's landscape-level land use planning exercise and implementation of demonstration projects, will disseminate the project's generated results and lessons learned and advocate for their replication throughout respective districts and rural okrugs. If needed, representatives of rayon or rural okrug akimats will attend meetings of the inter-agency Working Group to present and discuss any issues related to their on-the-ground work on integrated land use planning and implementation.
State forestry units in target oblasts	Forestry units are state funded legal entities operating under regional administrations focusing on management of the forest fund lands outside the protected areas system. Forestry units will be among the project's key beneficiaries for hardware and "software" technical support under Outputs 3.1, 3.2 and 3.3. Forestry units will be engaged and consulted at the design stage of the Eco-network "Kokshetau Uplands" particularly related to identification of areas containing HCVFs to be included in the proposed eco-network, wildlife and biodiversity reporting and zoning arrangements at a landscape level. Forestry units in the target areas will be engaged in the update of their management plans related to eco-network functioning and its requirements, along with forest fire prevention and control. Some forestry units in the target areas of NKL will benefit from upgraded infrastructure, i.e. fire control and prevention equipment, fire control stations and towers, forest nurseries for restocking harvested or degraded areas, and creating snow & wind breaks at farm fields. Targeted forestry units will be directly engaged in restoration and reforestation activities of HCVFs including degraded birch-aspen (kolki) forests. Its staff will benefit from the project's capacity building training on management of HCVFs, effective logging methods for broad-leaved trees, reforestation, biological protection to control pests and forest diseases, effective fire prevention and control measures, community education, and awareness raising and engagement in fire prevention. Some forestry units in the target areas will be participants in integrated land use planning exercises (Output 1.1) and demonstration projects under Output 2.4 on silvicultural pasture management.
Specially Protected Nature Areas	

Kokshetau and Burabai State National Nature Parks Nauruzum State Nature Reserve Vostochniy and Bulandinskiy State Nature Zakazniks Turkty State Nature Reservat (prospective)	The listed protected areas in the target area will represent the core conservation areas of the proposed ecological network "Kokshetau Uplands" under Output 3.1. Existing PAs will be actively consulted at the eco-network design stage assisting in identifying valuable areas for biodiversity conservation, defining eco-corridor boundaries, and engagement of local communities through their PA Public Councils. One or two listed PAs may end up managing the proposed eco-network and established eco-corridor. The to-be created Turkty Refuge will be assisted with development of its PA management plan upon official formation. All the PAs will benefit from the project's capacity building for PA management, awareness raising and communications with local communities including farmers, and fire prevention and control measures in fire prone areas. The Nauruzum State Nature Reserve will benefit from upgraded fire control and prevention infrastructure and equipment, and tested methods for restoration of degraded lakes and wetlands. Some PAs in the target areas will be participants in integrated land use planning exercises (Output 1.1).
Private sector: agricultural producers	
Agricultural producers, farms: EN DALA LLP, Ayam-7 LLP Tselina Agro LLP, Yershovskoe-2 LLP, Beibars Agro LLP, Bolshemalyshenskoye LLP and others	Farmers are direct beneficiaries under Outcome 2, while some will be actively engaged in land use planning development in respective rural okrugs under Output 1.1. Farmers will benefit directly from sustainable land use, crop, and livestock demonstrations at pilot sites under Output 2.2.-2.4 and will contribute labor and other inputs to implementation of demonstration projects. Famers from the target regions are expected to benefit from the subsidy program and will contribute to assess the effectiveness of the existing subsidies and effectiveness of proposed sustainable land use and livestock management approaches at the demonstration sites (Output 2.1). Farmers will be the project's principal beneficiaries of the revised and upgraded regional network of the farmers' support system (Output 2.5) and the National Experience Exchange Network (Output 4.1). Farmers will also be key to regional dialogues on the Green Wheat Platform Initiative.
Hunting and Fishery entities	Hunting and Fishery managers are responsible for game species and Red List species monitoring within their respective sites, along with interests related to the sustainability of game populations in hunting areas and neighboring territories. Hunting and fishery entities will contribute to the development and implementation of the landscape-level land use plans (Output 1.1), and design and operationalization of the eco-corridor as part of the proposed eco-network "Kokshetau Uplands" (Output 3.1). They will be key repositories of ecological information on biodiversity, land resources, wildlife, and habitats. Hunting concessionaires in the area of the proposed eco-network will be participants in an inventory exercise aim at revising the zoning arrangements at a landscape level and optimizing lands of hunting areas to align with the conservation objectives of the eco-network "Kokshetau Uplands". Hunting and fishery entities will gain from the project's capacity building training related to compliance with requirements for the eco-corridor and protecting valuable steppe, meadow and forest steppe biotopes within the proposed eco-network "Kokshetau Uplands". Hunting and fishery managers will play a key role in patrolling, monitoring and protecting the biodiversity of the ecological corridor.
Agricultural Experimentation Station (AES) "Zarechnoe"	AES "Zarechnoe" LLP is an elite seed-growing farm owning about 30,000 hectares of farmland in the Kostanai Oblast, of which 15,000 hectares are used for sowing grain, leguminous plants and oilseeds. AES Zarechnoe provides scientific support to agribusiness entities in crop production and animal husbandry and produces elite seeds of agricultural crops. The staff of AES Zarechnoe will play a key role in implementation of demonstration projects in Kostanai Oblast under Outputs 2.2., 2.3 and 2.4. AES Zarechnoe will contribute to the land use planning exercise in the pilot rural okrug of Kostanai Oblast (Output 1.1), review and design of government policies and subsidies under Output 2.1 particularly as related to elite seed production.
Private sector: retail and export enterprises	
Magnum Cash & Carry	Magnum Cash & Carry is the largest, retail company No. 1 in Kazakhstan. The company was established in 2007 and today it occupies a leading position in the retail market of Kazakhstan, providing customers with quality products. The company has its retail networks in 36 shopping centers in Almaty, Astana, Karaganda, Shymkent, Taldykorgan and Petropavlovsk. The total number of buyers exceeds 100,000 per day. A wide range of products of more than 17,000 items, which is represented by high-quality and fresh food, as well as goods for home and family The company agreed to provide a set of actions aimed at promoting target project farms with a product and service that affects the economic diversification and cropping management of the target farms. Support the farmers at the project sites with development of quality and quantity product production with the maximum economic benefit for the project targeted farms. Help out the target farms with the product labeling in accordance with the legislation of the Republic of Kazakhstan and international standards.

Trading Company "Tamasha"	The largest exporter and retailer company in Kazakhstan on grain and oil products. The company is expected to help out the target farms with the product labeling in accordance with the requirement of the EU, USDA, Saudi Arabia and etc. including services for the transportation, storage and expert of the commodities.
Supermarket SMALL	SMALL & Skif is the largest developing trade and retail network in Kazakhstan. The company has agreed to establishing common standards and increasing the effectiveness of interaction along the entire supply chain of goods with the project stakeholders and targeted regional farms.
AUCHAN Retail Central Asia	AUCHAN Retail Central Asia is a subsidiary of Auchan Retail (part of Auchan Holding) and large retail chain operating in the market since 2002. The company has been recognized as the "Best Retail Employer" three times. In 2012, 2014, 2016, 2017 and 2018. The company is committed to support up to 200 producers and SMEs within the project target areas to get international quality certificates in the field of production and sale of food and non-food products, as well as a quality certificate of the environmental management system.
JSC TSESNA Corporation	Performs round-the-clock monitoring, observations, analysis, forecasting and warnings of nature: in the air, water, earth, flora and fauna. State authoritative voice on the state and behaviour of the Earth's atmosphere, its interaction with the climate. It produces and the resulting distribution of water resources. The company will support the project target farmers and SMEs with marketing, consulting and other value chain services; investment activities; educational activities related to continuing education on value chain management; the provision of international medication support for commodity product and retail.
TOO «Kaz-Ir Agro»	The largest oil and grain processing medium size company. At the moment, the company owns its own oil shop, a bakery (equipped for storage and processing of grain and oilseeds) and agricultural machinery. The company also owns 45,000 hectares of cultivated land intended for growing crops. The company will provide extension and value chain services for the target farms with oil crop production under a long term contract, production of enriched forage crops for livestock sector and processing of oil crops including its trade and sale. The company has its own carriage and logistic services as well as provides support for the organization o the organic sites and production of organic chemical.
TOO Kaz GRAIN Pool	«Grain Pool» is a part of the Grain Union of Kazakhstan. The company is headquartered in Ust-Kamenogorsk. Our branches are located in Kokshetau and Kostanay. We carry out the purchase and sale of large quantities of grain crops and oilseeds. Today Grain Pool is one of the largest suppliers of grain in Kazakhstan and Central Asian countries. One of the largest processing and logistic company on grain and oil crops with steady geographic coverage beyond Kazakhstan such as Netherlands, Mongolia, China, Afghanistan, Uzbekistan, Turkey, Ukraine, Latvia, Azerbaijan, Tunisia, Egypt, Russia, Kyrgyzstan and Belarus. The company will support the project targeted farms with the practices to improve grain for the production of high-grade flour and noodle products, as well as grain for fattening livestock and etc.
TOO LOGOS Grain	A holder of the several elevators, grain storage, and farming industries for production of oil and grain crops. The company will help the project target farmers with knowledge of value chain within the Central Asian regions on grain trade. Experiment new practices for the grain washing, drying and export. The company is also growing grain and vegetable crops, and support forage production initiatives within the project
KazakhExport	"KazakhExport" JSC is to support the rise in exports of non-primary goods, works, and services in priority sectors of the economy and to develop the practice of financial-insurance and non-financial support of Kazakhstan enterprises. The company will support the targeted project SME and farmers help to promote at the international arena. The company will provide to those project SMEs and farmers with insurance coverage to provide for exports to CIS countries as Russia, Tajikistan, Kyrgyzstan, Uzbekistan, and Turkmenistan, which exports are due to the traditional markets for sales of the Kazakhstan processed products. Also, helps to export of Kazakhstan goods to such countries as Italy, Germany, Lithuania, Latvia, China, USA, Switzerland, Poland, the UAE, India, Ukraine, Belarus, Turkey, Afghanistan, and Mongolia.

Educational, Scientific & Research Institutions:	
Kazakh Agrotechnical University named after S. Seifullin (Nur-Sultan), Kostanay State University named after Baitursynov incl. Digital Hub "Parasat", Kazakh Research Institute of Livestock Breeding and Fodder Production, KazNIILHA Pavlodar State University named after S. Toraigyrov North Kazakhstan State University named after M. Kozybaev Kokshetau State University named after Sh. Ualikhanov Higher Technical College (Shchuchinsk, Akmola Oblast)	Educational universities and Higher Technical College will be engaged in the project's work on design and incorporation of project-related thematic educational modules into the existing higher education curricula (Output 4.2). The staff and students of the educational institutions will benefit from visits to the project's demonstration sites to observe the application of environmentally friendly land use practices at farms (Outputs 2.2-2.4), and methods for restoration of degraded forests, wetlands and lakes (Outputs 3.2, 3.5). The Universities will contribute to development of a methodology for post-graduate on-farm training programs for students of agricultural departments and will liaise with key agricultural producers at target landscapes as potential hosts of the program. The Livestock Breeding and Fodder Production Research Institute and KazNIILHA will be the key agents for guiding participants of demonstration projects in sustainable crop production, perennial crop systems, livestock management (Outputs 2.2-2.4) and restoration of HCVFs (Output 3.2). KazNIILHA will lead scientific and economic studies of water-logged birch-aspen stands, field-protecting belts and floodplain forests in the NKL and will compile a set of recommendations for planning mitigation and disease control measures for restoration of degraded forests. KazNIILHA will provide its space and staff for training 360 forestry specialists and specially-protected areas staff on sustainable methods of broad-leaved trees logging, reforestation and restoration, and biological protection of forests from pests and diseases (Output 3.2).
Public and Farmer Associations, NGOs, local communities	
Association of Organic Farming, Union of Crop Farmers (*Soyuz Polevodov*), Farmers Union of Kazakhstan, Agrarian Union of Women of Kazakhstan, Qazaqstan Organic Producer Union, Kazakh Federation of Organic Agriculture Movements (KazFOAM) and others	The various listed farmers associations and unions will participate in consultations and provide inputs to the development of integrated land use plans in target rural districts under Output 1.1. Members of the Association of Organic Farming and the Union of Crop Farmers (*Soyuz Polevodov*) will coordinate implementation demonstration projects (Output 2.2-2.3) in Akmola, Kostanai and North Kazakhstan Oblasts and participate in capacity building training under Output 2.5. All unions and associations will participate in the subsidy review exercise (Output 2.1), will develop their proposals for subsidies to be reviewed by the inter-ministerial Task Force Group, and, if needed, will participate in its meetings of thematic relevance (Output 1.3). *Soyuz Polevodov* will be an important stakeholder for Output 2.6 on design and operationalization of the Green Wheat Platform Initiative and will potentially become an administrator of the Platform upon project closure. All members of these unions and associations will benefit from participation in the National Experience Exchange Network as well as other awareness raising and advocacy activities of the project under Outcome 4.
Local communities and their associations	As representatives of farmers and other groups of resource users at project sites they will be engaged in integrated land use planning, design and creation of the eco-network "Kokshetau Uplands" through consultations and relevant capacity building activities (Outputs 1.1-1.2 and 3.1). Local communities at target demonstration sites (Outputs 2.2-2.4, 3.2 and 3.5) will be active observers and participants of experience sharing exchange visits. Community members at target sites under Output 3.4 will be engaged in fire prevention measures, rules of conduct in case of fires, etc. Local communities will benefit from the project's awareness raising and advocacy activities (Output 4.3)

3.3. FOLUR Global Platform Engagement, Liaison and Guidance / Support ("Docking")

115. The information below refers to the coordination and linkages between the Northern Kazakhstan FOLUR Country Project and the FOLUR Global Knowledge to Action Platform. The Global Knowledge to Action Platform Project (hereafter referred to as the Global Platform), being an integral part of the FOLUR IP along with the global partnerships and the country-level projects, aims to integrate the projects, partners, policies and practices into a program that is greater than the sum of its parts through engagement with value chains, policy and advocacy and proactive knowledge management. The Global Platform aims at strengthening collaboration among the implementation agencies, participating countries, global coalition

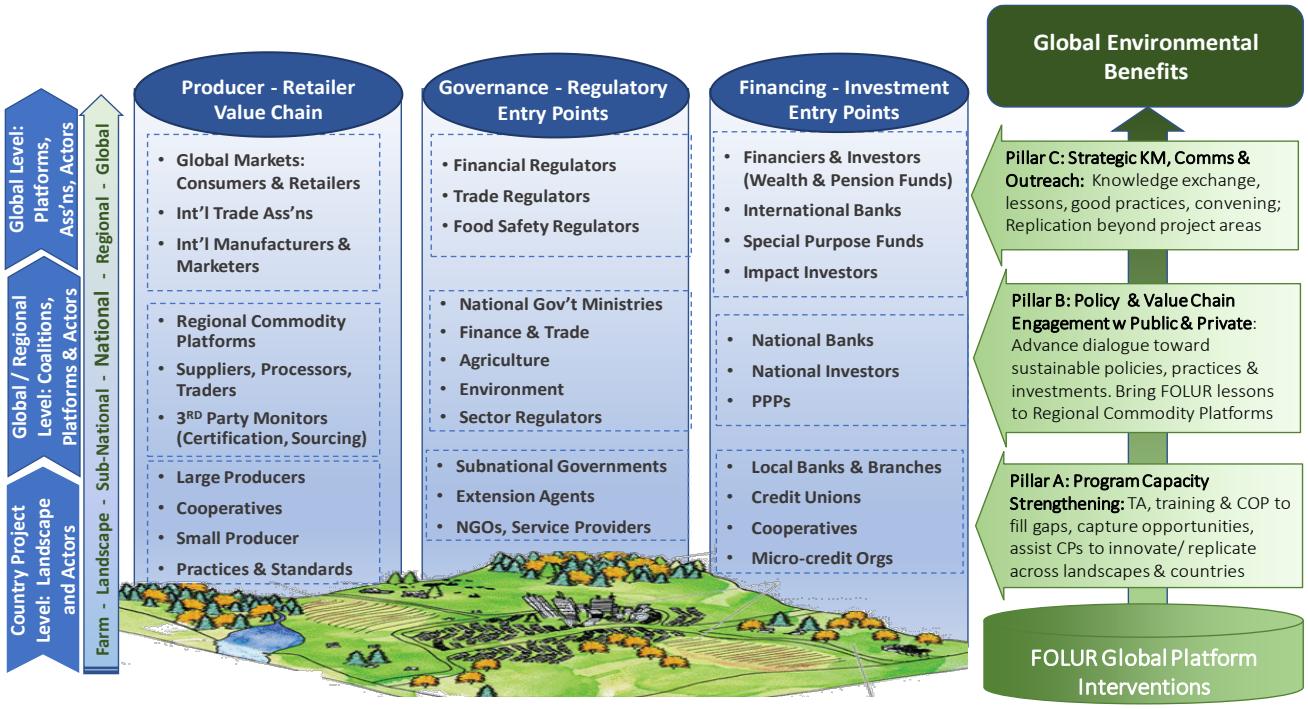
partners and the international investment community. The Global Platform will ensure direct, frequent engagement and liaison with the FOLUR participating country projects ("docking"), global level oversight coordination, monitoring, and reporting. The information below highlights the wide range of mechanisms and activities that provide linkages between the Northern Kazakhstan Landscape FOLUR Country Project and the FOLUR Global Platform Global Knowledge to Action Platform. In addition, Annex 29 of this Prodoc provides a table summarizing specific aspects of the Northern Kazakhstan Landscape project design that have been included to respond to and support these linkages.

116. Functional and Thematic Vertical Integration and Capacity Support: The FOLUR Global Platform is structured in three pillars, which make up the Global Knowledge to Action Platform that forms the cohesive program strategy:

- Pillar A: Program Capacity Strengthening
- Pillar B: Policy and Value Chain Engagement Public & Private
- Pillar C: Strategic Knowledge Management, Communications, and Outreach

117. The overall structure of the FOLUR Global Platform is diagrammed on the right hand side of Figure 1 below. This figure also indicates on the left hand side how the FOLUR Country Projects will be linked from the national to the regional and global levels through the FOLUR Global Platform.

Figure 1 FOLUR Global Platform Structure *(source: Global FOLUR draft Prodoc)*



118. Program Capacity Strengthening (Pillar A) activities will increase the practical skills of Country Project implementers and the collective understanding of needed actions across countries through the Community of Practice (CoP). This will result in more integrated efforts to improve landscape management and restoration efforts, expansion of multi-stakeholder dialogue processes, and technical assistance and innovations to catalyze action. Policy and Value Chain Engagements (Pillar B) with both the private sector and the public sector will contribute to harmonized policies and standards, and mobilize additional finance for sustainable production approaches. Strategic knowledge management and communications (Pillar C) activities will result in convening of key groups, flagship studies and practical publications that influence not only practitioners, but also policymakers and investors. Through KM and Communications, plus the two-way country dialogue, supported by the CoP, the Platform will provide the "space" needed for constructive discourse and alignment of solutions across multiple scales, as a means to influence a transformational shift toward sustainable and resilient food systems. By linking the IP investments with other relevant regional and global initiatives, the global platform will help to ensure that the whole has a greater impact that goes beyond the CP investments.

119. Within each of the three program pillars there are numerous activities that are directly designed to vertically integrate the FOLUR Country Projects across regions and commodities. A sample of these activities are highlighted in Box 1 below.

Please refer to the FOLUR Global Platform Prodoc for the full extent of the planned Global Program activities that address vertical integration and support.

Box 1 Samples of FOLUR Global Platform Activities Supporting Vertical Integration of Country Projects

Pillar A: Program Capacity Strengthening	*A1. Strengthen capacity through proactive learning across Country Projects and commodity value chains* - *Identify, adapt and cost effectively deliver learning programs on strategically important topics to achieve consistency and quality of Country Projects – both geographic and value-chain focused* - *Target private sector and public sector actors with capacity programs using innovative approaches (e.g. sharing best production practices across Country Projects and value chains)* - *Deploy training and extension innovations, link training efforts to existing programs and KM repositories*
	A2. Prioritize and Target Technical Assistance to Fill Key Gaps & Promote Innovations - *Selectively target Technical Assistance on key issues / bottlenecks organized with groups of Country Projects and coordinated with FOLUR priority activities under Pillar B (e.g. fostering effective private sector collaboration in Country Projects design and implementation activities; identifying opportunities / entry points on value chains sustainability issues, etc.)* - *Catalyze innovation / bring new ideas, actors into FOLUR (e.g. technology partnerships with providers; outreach strategies to reach mid and national level value chain segments; assess demand for global platform on animal feed (sourcing standards)*
	A3. Strengthen collective understanding and action across and beyond FOLUR landscapes - *Facilitate CoP engagements*
Pillar B: Policy and Value Chain Engagement	*B1c) Catalyze country level engagement with Private Sector to transform commitment into actions* - *Promote / disseminate traceability systems, info and tools; sustainable sourcing / procurement standards into global markets; case studies and success stories, including business cases, training products, ICT applications* - *Assist in identifying and addressing Country Project level on policy impediments to private sector engagement and investment; outreach to new domestic companies, regulatory bottlenecks*
	B2a) Advance country dialogue on sustainability and policy reforms toward improved production, restoration practices, standards and incentives - *Capitalize on Country Project opportunities to advance policy revisions through targeted analytics, entry points with Country Projects, specific Technical Assistance on policies, standards, incentives and compliance* - *Assist country champions to translate commitments into practical actions; provide needed policy support, resource mobilization, KM products and guidance notes*
Pillar C: Strategic Knowledge Management, Coordination Communication with Country Projects	*C1b. Deploying technology solutions* - *Deploy technologies aimed at improving effectiveness of partner coordination and communication, and heightening the impact of overall FOLUR global program and Country Project efforts* - *Augment / adapt existing digital platform for collaborative learning & info sharing across FOLUR partners and Country Projects, e.g. ToC, gender, business cases, commitments indicators*

120. Operational and Implementation Support: The design and staffing of the Global Platform are organized to emphasize direct, frequent engagement and liaison with the FOLUR participating Country Projects. This "docking" with Country Projects will occur on several levels: through the Program Management function and the annual work planning and reporting process, through a dedicated liaison officer regularly engaging with IA and Country Project focal points, through annual and regional face-to-face meetings, and through guidance on best practices to execute key Pillar activities.

121. **Program Management and Annual Work Planning and Reporting Process.** The Global Program Manager will lead the annual collaborative work planning process, with the support of the Core Partners and Country Project Focal Points. The aim is to achieve an efficient process that allocates resources to the highest impact activities, based on contribution to overall FOLUR goals and the perceived needs of the overall IP, represented in large part by the Country Projects. Work plans will identify and budget for specific training, TA, policy engagement, resource mobilization and commodity/ region-based activities that respond to demand expressed by the Country Projects (through surveys, CoPs, or direct requests). Work plans will also aim for efficiency by planning for regional- or commodity-based engagements that allow CP-responsive work, while keeping clear sight on global opportunities for outreach, engagement, resource mobilization and partnership. The work planning process will also be built on assessment of performance over the previous year (related to M&E, discussed below), with adjustments in direction for each subsequent year, tempered by budgetary constraints. The FOLUR Program Manager

(and team) will schedule and document regular meetings and calls with IAs and Core Partners, as well as direct liaison with GEF Sec. A feedback and suggestion space will be created for the FOLUR Core Partners and Country Projects on the dedicated website, to allow full exchange of views and transparency on suggested priority activities. The annual report will be another important vehicle for reporting on progress and results to GEF, and a tool for engaging with Country Projects and ensuring that the Platform and the Country Projects are working together to leverage policies and financing into action and improvements on the ground. The report will capture success stories on transformation achievements in landscapes and commodity value chains for sharing across countries. The annual report will also reflect the results reporting of all Country Projects and amplify their ability to communicate with GEF, partner agencies, and the wider community about achievements and strategies. The Platform Communications and KM team will engage with Country Projects to gather and document success stories to feature in the annual report.

122. **Dedicated Country Project Liaison Officer.** The FOLUR Platform team includes a dedicated liaison officer (Deputy Program Manager) to engage regularly with IAs, Core Partners and Country Project focal points. The deputy manager will coordinate the process of harvesting and documenting demand and lessons from the field that need to be incorporated into the work planning process and feedback to / from Country Projects and IAs. This process of country engagement and liaison will also be supported through the technical work under the three Pillars of the Global Platform. Through the planning and delivery of capacity and training, through dialogue under the community of practice, through public and private sector engagement activities and participation in regional commodity platforms, the FOLUR Core Partners and Country Project focal points will assess the success of delivery of activities. They will also identify and articulate additional needs for future activities that are in high demand, or logical follow-ons to existing workstreams. The Pillar C KM and Communications lead will assist in this process, harvesting and prioritizing demands for knowledge and communications products coming from country level interactions. The Pillar C lead will have a key role in promoting the achievements of the Global Platform. They will routinely assess demand for, and uptake of, disseminated KM products and their accessibility (through platforms and websites) as a gauge of the needs of the Country Project officials and practitioners. This effort will be supplemented by regular surveys of IAs and Country Projects for feedback on demand for products and services that can be designed and delivered by the Global Platform and built into the structured work planning process anchored in the Annual FOLUR Meeting. The deputy will coordinate this process and contribute to regular meetings of partners and the annual assessment and work planning process to result in activities that are responsive to the needs of the participating Country Projects and partnerships supported under the FOLUR Global Platform.

123. **Annual / Regional Meetings.** As noted above, the Global Platform will organize an annual meeting of FOLUR partners and Country Projects in an efficient, cost effective manner as an opportunity for learning, networking, assessing results and assessing demand. This will be a key feature of the country engagement and liaison process, supplemented by the regular calls and surveys. Specifically, the annual meeting will facilitate 'side-events' or smaller group gatherings to focus on a high impact issue or area of demand to plan a coordinated response. These smaller gatherings will include regional meetings in collaboration with commodity platforms. The map of FOLUR country projects reinforces this focus, given the geographic clustering of primary commodities (e.g., rice in Southeast Asia or coffee in East Africa). These gatherings will also be an opportunity to include participants and lessons from other FOLUR IA projects and GEF-funded projects in the regions. The Platform will also organize events or smaller gatherings associated with regional meetings or training events so that groups of countries and IAs can come together about specific issues or demands facing their set of landscapes and commodity production systems.

124. **Country Project Check-ins.** To ensure opportunities for direct exchange and feedback, the FOLUR Global Platform will arrange field visits or video conferences with each Country Project team at least once per year for a one-on-one check in. These contacts will be scheduled in collaboration with the lead IA for the country and the country project team. For efficiency and cost-effectiveness, these visits will be linked with regional gatherings of private sector commodity platforms and training events with Country Projects, to the extent possible. Where logistics and scheduling are difficult, such visits will be arranged as virtual meetings to ensure good engagement of the Country Project and IA staff. This is an opportunity to highlight what's working, what's not, and why in project implementation. The Global Platform is designed to efficiently roll-up information from countries, synthesize those findings, and return relevant insights back to the Country Projects. These direct country interactions will support the overall KM and communication goals.

125. **Standardized Guidance.** One aim of the FOLUR Global Platform is to leverage and amplify activities programmatically across Country Projects to reach more enduring results at scale, as outlined in STAP guidance. The planned work programs under Pillars A and C aim to capture best practices on knowledge management, stakeholder engagement and system-wide capacity development will play a key role in this approach and constitute an important element of "docking" with the Country Projects. The Global Platform will provide demand- and needs-based guidance to Country Projects to ensure

country-level teams are capacitated with best practices and implementation is executed to a high standard. Knowledge management efforts will help to systematically capture experiences, lessons learned and good practices across all Country Projects for regional and global dissemination and replication. The Global Platform can provide guidance that harmonizes country-level efforts to enhance "system-wide" capacities of stakeholders and institutions, extending impact to regional and global scales. The Global Platform will share examples of successful stakeholder engagement plans across the Country Projects toward securing sustained political commitment through maximizing country ownership.

3.4 Gender equality and women's empowerment

126. An integral part of the project planning was the performance of a detailed gender analysis. The Gender Analysis followed an Action Plan is provided as Annex 14. The goal of this work was to define the current situation in the NKL and then to ensure that women and men are equally engaged in the project, and provide a roadmap for gender mainstreaming. This applies to all stages of the project, from its development, through the implementation, and monitoring and evaluation. This will hopefully result in the fact that women and men benefit equally from the changes instituted by the project to sustainable crop production and livestock management along with ecosystem conservation regardless of their role, whether it be as private farmers or as any of a number of other roles as residents of the NKL.

127. The gender analysis was conducted in line with the Guide to Gender Mainstreaming in UNDP Supported GEF Financed Projects, UNDP Guidance Note How to Conduct Gender Analysis and other applicable guides on gender mainstreaming. The methodology incorporated a review of published reports on gender issues in agricultural and rural areas. A number of direct interviews were also included in the analysis. Pursuant to the guidelines in the Gender Marker ATLAS, the project score is GEN2, which identifies gender equality as a significant objective for the project.

128. The following features describe the current situation as it relates to Gender Equality in NKL:

a. The current demographic situation in the pilot regions is balanced: the female to male ratio is almost 1:1. Traditional economic activities are livestock and crop farming, driven mainly by men, while women are generally involved in housekeeping.

b. The urbanization process explains a rapid growth of the urban population, however, a zero increase in the number of working-age women in rural areas deserves special attention. With a positive birth rate, this can only happen due to an increased outflow of women from villages to cities as a result of labor migration. This indicates unsatisfactory living and/or work conditions in rural areas which may include lack of employment, inaccessibility of social benefits and services.

c. The female population makes up a half of the total population of the pilot regions, where agriculture is the key production sector: crops and livestock farming. Since men are mainly represented as employees, women in the agricultural sector are self-employed/unemployed and produce agricultural products themselves in personal holdings (households) making a significant contribution to the agricultural sector of the region through the provision of services of sowing, weeding, harvesting and products processing in addition to reproductive activities and community service.

d. There are practically no gender differences in the poverty level indicator, where men and women are the same. But, rural poverty is almost three times higher than urban poverty. This situation is directly correlated with the situation in the labor market, since the standard of living of the population depends on its incomes, the main source of which is labor activity.

e. Today women continue to occupy lower positions than men in the labor market of Kazakhstan: the level of their professional qualifications and wages is lower; professional and industry segregation is high.

f. In addition to horizontal, industry inequality, there is vertical inequality. Within organizations, women tend to take, or be given, lower positions, and/or earn less in similar positions.

g. In Kazakhstan, there is an historic separation into traditionally "female" and "male" professions. Basically, the low-paid education, healthcare and services sectors appear to be female occupations while men choose higher-paying sectors that offer a more promising career such as transport, construction, engineering, and oil and gas. Their career trajectories are established in the educational system.

h. Women, often socially vulnerable, are more likely to be a part of informal employment and this leads to an inherent lack of decent involvement in the social protection system and the pension scheme in particular.

i. Women have lower chances to find a job on their own, which forces them, more often than men, to register as unemployed in employment services, in order to receive benefits and find a job. It should be also noted that women with higher and vocational education, aged 45 years and elder have the smallest job prospects.

j. The social and economic situation of most women is worse than that of men, which indicates the inefficient use of human capital. There is a clear inequality in the distribution of resources between men and women; women are those who suffer from the gender inequality. Their access to economic, social, political and power resources is limited; conditions for their personal fulfillment have not been created.

k. It is more difficult for women to get a loan, since many of them do not have collateral. This limits their access to financial resources for entrepreneurship, especially in rural areas. This limits them to starting very small businesses, mainly in the informal sector of the economy, which brings correspondingly low incomes. This limited access to financial resources and business opportunities leads to an inability to make decisions on household economies.

129. The gender analysis has provided specific recommendations that became a part of the project planning along with ones that are to be implemented as the project is carried out. These recommendations relate to project outputs, activities and strategies. During the project implementation there will be a concerted effort will be made on making sure that all project activities, including training and local decision-making have appropriate and adequate gender representation. Women and men will be proportionally involved during the consultations with local communities in project target regions, and female agriculture experts and decision-makers will be invited to project events, management bodies, coordinating and networking mechanisms. The project will support national partners at all levels to identify and implement opportunities for gender mainstreaming in their policies, strategies and practices. In working with the national stakeholders, the project will build knowledge of and competencies in issues pertaining to gender equality and women's empowerment to support rural and agricultural development in the NKL and all of Kazakhstan. Particular emphasis will be made on creation of income opportunities, including through employment, for male and female agriculture professionals.

130. The recommendations on gender mainstreaming in the project implementation are as follows:

- The project team and technical staff should maintain the appropriate gender balance, as far as possible, taking into account the necessary technical qualifications.
- An expert on gender mainstreaming should be included in the Project Board (PB) and in all project bodies that formulate decisions for the project at a lower level.
- At the initial stage, the indicators and goals in the project results framework should be reviewed to ensure an adequate disaggregation of any relevant indicators by gender.
- Project capacity building activities should ensure a gender balance among participants, as far as possible and practical.

131. The Gender Action Plan (GAP) presented in Annex 14 sets the two principal objective for the gender dimension of the project activities, as follows: 1) promoting and empowering the rights of men and women in the development of sustainable crop and livestock management and ecosystem conservation, and 2) making these developments while maintaining the integrity of the natural ecosystem. The specific actions under Component 1 that are needed to implement the GAP are as follows: Women would be involved in the inter-sectoral Task Force Group (TFG) on a reasonably proportional basis. Their involvement would similarly occur in the assessments/analyses efforts, in training and other capacity building events, in decision-making and involvement related to integrated landscape management (ILM), and the translation of these efforts into subsequent changes in laws, policies and strategies. Women's involvement would even be promoted by provision of such things as daycare, if necessary. The Component 2 specific actions include analyses that incorporate considerations that men and women run farms are proportionately involved in invitations to join agricultural co-ops, are equivalently represented as interviewees during farmer consultations, as participants in promotional activities, and in extension support and services. Specific actions for Component 3, as related to the GAP, include proportional training of women related to restoration of degraded ecosystems, inclusion of gender perspectives in communications to the general public regarding these restorations, and supporting women stakeholders in their work in degraded ecosystems. Component 4 specific GAP actions include mainstreaming of gender-specific practices of sustainable development on a project territory basis, proportional women's participation in establishing curricula for sustainable development, gender-balanced teams for authoring the curricula materials, and ensuring gender balance in the feedback from the piloting of the curricula. There will also be gender balance in national and international publicity and outreach events, including participation in the Global FOLUR IP Platform. Similar GAP involvements will be maintained in Monitoring, Reporting and Verification (MRV) and Monitoring and Evaluation (M&E) of project activities.

3.5 Risks to project success and social/environmental safeguards

132. A risk analysis was conducted during the PPG phase. Ten risks were identified in the SESP (Annex 3 to this project document), of which two were assessed as moderate risk, and eight assessed as low risk. Therefore, the project overall in relation to SESP measures is considered moderate risk. This is consistent with the UNDP-GEF approach that all UNDP-GEF projects that include on the ground activities related to protected areas must be classified as at least "moderate" risk.

133. As per standard UNDP requirements, the Project Manager will monitor risks quarterly and report on the status of risks to the UNDP Country Office. The UNDP Country Office will record progress in the UNDP ATLAS risk log (Annex 5 of this Prodoc). Risks will be reported as critical when the impact and probability are high (i.e. when impact is rated as 5, and when impact is rated as 4 and probability is rated at 3 or higher). Management responses to critical risks will also be reported to the GEF in the annual PIR.

134. There is a specific risk that was registered following the COVID-19 pandemic that started early in 2020 when the PPG phase for the project was at full scale. Impacts from the COVID-19 pandemic have been monitored and managed during the PPG stage. The following background information will support the "COVID-19 impact" risk management early in the project implementation phase.

135. The Government of Kazakhstan has been implementing a COVID-19 anti-crisis package ($13 billion or 9 percent of GDP) since March 2020. Policy actions have included some trade restrictions and regulated prices for socially-important goods, cash transfers to vulnerable households, access to medical care for the uninsured, and targeted sector assistance. A "special package" for the affected households included direct financial aid for those who could not work due to the pandemic restrictions (minimum salary), bonuses for healthcare works, and deferral in payments for the bank loans and utilities. The anti-crisis package included cash payments to the unemployed and self-employed, an increase in pension and social benefits, additional health spending, and support for employment and business. Subsidized lending of KZT 1 trillion (1½ percent of GDP) is being provided under State Program "Economy of Simple Things," along with actions to help small and medium-sized enterprises (SMEs). Selected enterprises and individual entrepreneurs are also eligible for new tax incentives. Rehabilitation package to support the worst-hit industries is under development. Direct assistance to businesses includes the increased state guarantees for SMEs, a three-month exemption of any type of tax, deferment of loan repayments, and the reduction and unification of loan rates for SMEs.

136. However, there are no green targets for related activities, including increased climate resilience. The next recovery phase response would need to help decision-makers look beyond the immediate socio-economic recovery as a primary objective. Green economy is considered to be one of the main focus areas for the recovery strategy towards 2030. The UNCT Covid-19 socio-economic response and recovery plan specifically refers to the urgent need to rebalance nature, climate and economy via a focus on the green economy, focusing on the following priorities:

- Restore the balance between people and planet: design nature-based solutions, encourage sustainable public-private partnerships, such as in ecotourism and green transport systems, transform agriculture from a carbon contributor to a carbon sink.
- Reduce fossil fuel dependence: stimulate industries to invest in an inclusive green economy.
- Build Back Better and Greener: regional cooperation, policy dialogue and the best practices of protection, preservation and sustainable use of natural resources to build back better and greener.

137. The sustainable economic recovery, targeted support to vulnerable businesses affected by the pandemic in the short and long run, revitalisation of import and trade, restoring supply chains and supporting SMEs are all elements of the green recovery path that the country is ready to follow. The specific elements were the FOLUR Northern Kazakhstan Project will integrate with the green recovery agenda of the country includes support to SMEs in the agricultural sector, capacity building for extension services in crop production, "greening" of wheat production in the NKL region, increased opportunities of green jobs, knowledge and capacity building.

3.5 Innovativeness, sustainability and potential for scaling up

138. **Innovation**: Integrated land use planning and a landscape management approach to support decision-making in a mosaic landscape, where a dominant commodity production cannot be sustainable if not accompanied by restoration and of ecosystem services, functions and processes is an innovative approach that will transform the current system of land use and sectoral land and nature resource management in NKL. To record the application of the innovative approach to land

use planning, a “how-to” guide will be developed by the project and shared within the country, in the Central Asia and globally. Testing the viability of the stakeholder engagement model for the development and pilot implementation of the integrated planning and management models, and the sustainability elements of the new land use planning approach would contribute to the knowledge management for the IP FOLUR Program.

139. Other innovative mechanisms to be applied by the project include a) a targeted LDN investment programme for land conservation and sustainable crop production projects in NKL (Output 2.1), as well as b) a unified web platform that will be used by extension centers for more efficient provision of services and monitoring of their work (Output 2.5). The project will develop and test innovative technologies to demonstrate diversification and improved management of productive crops (Output 2.2.) and sustainable perennial crop systems as diversification from unsustainable production of wheat and other crops (Output 2.3). 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, application of moisture saving technologies including snow retention, on-farm fodder production, etc. Innovative approaches to sustainable livestock management will include integrated pasture and distant rangeland management, establishment of distant rangeland management systems (watering points, mobile trailers for herders and mobile veterinary services for livestock at distant rangelands), enhanced fodder production and establishment of seed farms, restoration of degraded pastures/rangelands and meadows, sustainable use of silvopastoral ecosystems, and sustainable value chain livestock production.

140. With the value chain incentives and innovative sustainable wheat production practices, the project will contribute to the corresponding IP FOLUR global effort to capture and share knowledge and implement best sectoral practices. The application of agro-environmental financial incentives and financial instruments for diversification and improved management of productive croplands, introduction of perennial crop systems, and sustainable livestock management, although not new in the region, will significantly contribute to the national and regional knowledge management of LDN practices and technologies, and will be shared with the FOLUR countries with green crops as a key commodity. The modality for the agro-environmental finance scheme will be tested for efficiency and effectiveness, and the feasibility analysis of various direct subsidy instruments will be offered to the parallel SLM&LDN GEF-7 projects in Uzbekistan, Turkmenistan and Tajikistan.

141. **Sustainability**: The environmental, social, institutional, and financial aspects of sustainability are closely related and will be tackled through the project strategy, which takes a comprehensive and integrated approach that combines the maintenance of ecosystem services, the restoration of productive landscapes, and the conservation of biodiversity conservation through enhanced ecosystem connectivity. The project also includes institutional capacity-building at various levels, and farm- and producer-level on-the-ground interventions that promote sustainable production and sustainable land management. Environmental sustainability will be ensured through the project's results for landscape restoration, which will strengthen the status of ecosystem services provision across the landscape. The project also aims to build connectivity between PAs and unprotected high value natural ecosystems, with appropriate land use planning, contributing to the long-term survival of species of global importance through enhanced habitat. In addition, the project will be implementing environmentally sustainable agricultural production practices. Social sustainability will be pursued through extensive involvement of CSOs and producer groups using a gender focus, including in participatory land use planning processes through consultations, training, and technical assistance related to the use of financial incentives and the adoption of sustainable agriculture and sustainable land management techniques at the farm level. Sustainability of the gender-responsive extension work/training program for small and large producers, including women, will be supported through the systematic capturing, analysis, and dissemination of technical documentation, experiences, and lessons learned from the dedicated knowledge management actions, and long-term support through the extension service model and the Green Wheat Platform, as well as other participating stakeholders such as universities and scientific organizations. Farmers' associations, through an experience exchange platform, will be involved in planning and implementing extension activities; their engagement will ensure knowledge dissemination and replication of project results in other regions of Kazakhstan. Financial sustainability will be supported through the implementation of incentives and access to markets for small- and large-scale producers who adopt environmentally friendly production practices. Additional income will be generated, and productivity will be improved, therefore the producers will be interested and willing to continue the application of sustainable production practices beyond the life of the project. Institutional sustainability will be cultivated through the strong engagement of a wide range of institutional stakeholders who are tasked with managing various elements of the land and natural resources in the NKL, as outlined in the stakeholder engagement plan. The project will undertake a variety of capacity development activities that will improve institutional coordination across the landscape (e.g. regional cross-sectoral expert working groups) and improve the management of environmental monitoring data, through specific criteria and methodologies for assessment of agricultural lands, functions and services of ecosystems, and degrees of degradation. The key institutional sustainability element for the project lays with the status of ILUPs: the ILUPs will make up an integral part

of the land use master plans for each of the three target rural okrugs (districts), will be endorsed by the local governments, and will become legally binding. With the institutional capacities and leverage potential of the local governance authorities (maslikhats and akimats), the adequate funding for implementation, monitoring, and evaluation of pilot ILUPs will be ensured. Another important indication of sustainability for Component 1 is the high level of stakeholder commitment and pledged co-financing for ILUPs development and pilot implementation.

142. **Replication and scale-up:** ILUPs as a pilot land use planning exercise embedded into the land use master planning at the rural district level has a high potential of replication and scale-up beyond the three pilot oblasts in NKL. Capacity building activities under Output 1.2. will make sure that skills, knowledge, and competences needed for comprehensive land use planning, effective coordination of relevant stakeholders, and monitoring and enforcement of ILUPs are in place and can be developed/transferred for further replication. “How-to” guides with clear instructions to follow for the ILUPs development at district and rural okrug levels will be made available for replication and scale-up purposes.

143. The technologies for “kolki” forest restoration (Component 3) will be highly replicable for other countries in the region. The upscaling of project results at the national level will be enabled through the mobilized investment and adjusted baseline investment programs of the Government, as part of the commitment and co-financing of government agencies implementing these programs. The Green Wheat Commodity Platform will have the potential to be replicated to other commodities both in the north and south of the country. Wetland and lake ecosystem restoration experience will be handed over to the respective authorities and applied to all other lands in similar situations.

3.6 Knowledge management

144. The project will prepare and disseminate reports systematizing project experiences, best practices and lessons learned. These may take different forms such as technical reports, case studies and lessons learned notes tackling different themes:
a) sustainable food production and responsible value chains;
b) environmentally responsible management of productive croplands and innovative pasture management;
c) agro-environmental incentives;
d) restoration;
e) fire prevention and control;
f) importance of healthy connectivity corridors and key natural ecosystems for sustainable land management;
g) participatory approaches and stakeholder engagement; and
h) gender equality and other factors that may be identified during implementation.

145. Publications will include information on the methodologies applied, the difficulties encountered, as well as success stories and their contribution to the project’s objectives. The project knowledge products will be shared with project beneficiaries, governmental and other stakeholders and implementers of other related projects in Kazakhstan. Project publications will also be offered to the knowledge management platform (Output 4.1). Information will be regularly exchanged with the parallel international projects and governmental initiatives.

146. Numerous communications products will be developed and disseminated throughout the life of the project. The means of dissemination will include on-line elements such as use of social media platforms, project and government agencies´ websites. The information dissemination effort will focus on: a) stakeholder engagement through communication of project agenda and proposals; b) promotion and stimulation of governmental reforms and regulatory changes in support to market transformation, through expert assessments and briefings for policy makers; c) communication of project results to key stakeholders, decision makers, farmers and entities producing and processing products from crop production; d) materials aimed at local and regional stakeholders to encourage their engagement in raising awareness of the project´s objectives and activities. All communication materials will be gender-sensitive.

147. . The project will share knowledge and lessons learned within project landscape, value chain actors and relevant national audiences. Project experience will be actively shared through coordination with Global IP Platform and IP participants. The project will collaborate with the FOLUR Global Platform to identify joint Technical Assistance and training needs to fill gaps or implement innovations. The project will also review and provide feedback on guidance notes developed through the FOLUR Global Platform, and will work to integrate these KM elements into project implementation.

148. The project activities for knowledge management and information dissemination will be undertaken in accordance with the project´s knowledge management, communication and information plan to be elaborated as one of the principle products of the project inception phase. The strategy will have the following objectives:

a) plan and implement the project knowledge management in coordination and synergy with the parallel initiatives of the government, donor-funded projects in the country, and regional IP FOLUR knowledge management actions;

b) raise awareness, inform project progress and results of project M&E;

c) manage technical information and process it to develop communication products to provide key stakeholders with information that is reliable, clear and accessible; and

d) capture and systematize project information, results and lessons to disseminate the knowledge generated and provide input for learnings and adjustments in the M&E process.

The knowledge management, communication and information plan will ensure: a) timely dissemination of information on social and environmental implications before decisions are taken; b) easy access to information related to the project by project stakeholders and the public; and c) appropriate formats and languages adapted to the different target audiences (e.g., authorities, technicians, academia, communities, women). It is expected that the knowledge management, communication and dissemination budget will be between 10 and 15% of the project programmatic budget.

149. In line with the requirements of the FOLUR IP Global Platform, the project has included relevant Knowledge Management indicator(s) in the Results Framework:

- Component 4 "Sustainable land use and restoration methods are documented and disseminated to catalyze additional positive changes":
  - Existence of capacity development and knowledge management products on sustainable agricultural production (wheat) and agricultural land restoration
  - Number of events & documents disseminated to share knowledge beyond FOLUR countries through S-S exchanges, conferences, and global events, including community of practice.

3.7 South-south and triangular cooperation

150. Learning opportunities and technology transfer from peer countries will be further explored during project implementation. To present opportunities for replication in other countries, the project will codify good practices and facilitate dissemination through global ongoing South-South and global platforms, such as Africa Solutions Platform, the UN South-South Galaxy knowledge sharing platform and PANORAMA. In order to enhance Kazakhstan's presence in regional and global forums, the project will explore opportunities for meaningful participation in specific events where UNDP could support the country's engagement with ongoing global discourses on sustainable food systems, sustainable wheat production, agro-environmental incentives, extension support to farming, and sustainable land management. Furthermore, the project will define and provide opportunities for regional cooperation with countries that are implementing initiatives in geopolitical, social and environmental contexts relevant to the proposed project in Kazakhstan.

151. The project knowledge products and lessons learned will be shared with the non-FOLUR countries running the parallel SLM&LDN GEF-7 projects in Uzbekistan, Turkmenistan and Tajikistan.

IV. PROJECT RESULTS FRAMEWORK

This project will contribute to the following Sustainable Development Goals:

Goal 1: End Poverty in All Its Forms Everywhere

- By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance

Goal 2: Zero Hunger

- By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment
- By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality
- By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed
- Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility

Goal 5: Gender Equality

- Adopting and strengthening sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.
- Putting a stop to all forms of discrimination against all women and girls globally.
- Listen to girls: SDGs can deliver transformative change for girls only if they have been consulted and their priorities and needs have been taken into account.

Goal 6: Ensure availability and sustainable management of water and sanitation for all

- By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate
- By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

- Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets

Goal 12: Ensure sustainable consumption and production patterns

- By 2030, achieve the sustainable management and efficient use of natural resources
- By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature
- Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle
- Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production

Goal 13: Take urgent action to combat climate change and its impacts

- Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

- By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements
- By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally
- By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world

- Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species
- By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts
- Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems
- Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation

This project will contribute to the following country outcome included in the UNDAF/Country Programme Document:

PFD Outcome:

- Outcome 3.2. By 2025, all people in Kazakhstan, in particular most vulnerable, benefit from increased climate resilience, sustainable management of environment and clean energy, and sustainable rural and urban development
-

This project will be linked to the following output of the UNDP Strategic Plan:

UNDP Strategic Plan Output:

- Output 1.4:1 Solutions scaled up for sustainable management of natural resources, including sustainable commodities and green and inclusive value chains

This project will contribute to the below FOLUR Program Framework indicators that are not otherwise included directly in the project results framework:

- FOLUR Component 1 Outcome Indicator 2: Number of countries with improved enabling conditions, institutional mandates, and incentives for ILM - Project contribution if successful: One (1) country (Kazakhstan)
- FOLUR Component 1 Outcome Indicator 4: Number of national multi-stakeholder dialogue mechanisms/platforms effectively operated from integrated landscape management - Project contribution if successful: One (1) sub-national multi-stakeholder dialogue mechanism/platform (Kazakhstan). NOTE: several municipal-level Integrated Land-Use Plans covering NKL landscape defined as "sub-national" level
- FOLUR Component 2 Outcome Indicator 5: Number of national enabling environments promoting sustainable food production and deforestation free commodity supply chains - Project contribution if successful: One (1) national enabling environment (Kazakhstan) NOTE: agro-environmental incentives set for adoption at the national level
- FOLUR Component 3 Outcome Indicator 1: Area or number of jurisdictions with improved and participatory approaches for restoration adopted - Project contribution if successful: One (1) landscape (Northern Kazakhstan)
-

	Indicators	Baseline	Mid-term Target	End of Project Target	Means of Verification	Assumptions
Project Objective: *To trigger wide-scale adoption of efficient land management technologies and promote green value chains to reduce degradation of productive agricultural land and associated high value ecosystems in Northern Kazakhstan Landscape*	1. FOLUR Component 1 Outcome Indicator 1: Number of landscapes or jurisdictions with improved planning & management practices to foster sustainable food systems	0	0	1	Project reports and documentation; Successful completion of project activities for relevant project components, as verified by the MTR and TE.	- Project risk management strategy is instrumental in management of moderate/high risks that derail implementation - Project initiatives supported by sectoral stakeholders
	2. Area of landscapes with clarified boundaries and allowable land uses in protected and production	0	0	22,000,000 ha	Project reports and documentation; Successful completion of project activities for relevant	- Project risk management strategy is instrumental in management of

	Indicators	Baseline	Mid-term Target	End of Project Target	Means of Verification	Assumptions
	systems (FOLUR Component 3 Outcome Indicator 2)				project components, as verified by the MTR and TE.	moderate/high risks that derail implementation - ILUP as a mainstream land use planning modality is supported at appropriate scales
	3. # direct project beneficiaries disaggregated by gender as co-benefit of GEF investment (GEF-7 Core Indicator 11)	N/A (zero beneficiaries)	60,000	106,000	Number of staff employed in private sector companies directly engaged by the project Number of public sector employees involved in project activities through training, integrated land use planning, and restoration activities Number of local resource users involved in sustainability livelihoods and restoration activities under the project Number of staff employed at PAs targeted by the project	- No large-scale staff turnover in participating enterprises, government institutions, and targeted PAs - Rural residents with resource-dependent livelihoods will benefit from project outcomes
	4a. Species indicators: viability and well-being of populations of the species of special conservation concern and keystone species in pilot sites. Species to be confirmed for individual pilot sites; those may include: - population number and reproduction success in nesting keystone bird species such as Eastern Imperial Eagle *(Aquila heliacal)* and Steppe Eagle *(Aquila nipalensis),* - number of migratory geese in the migration stopover,	Baseline values to be identified in the first year of the project implementation	Stable or increase relative to baseline	Stable or increase relative to baseline	Biannual monitoring from national partners (e.g. PAs) in appropriate pilot project sites	- Project lifetime is sufficient to allow impacts to be generated and monitored - New threats do not emerge - Population dynamics not strongly affected with negative factors acting outside of the local area (wintering areas for nesting birds, on breeding grounds for migratory waterfowl, etc.)

	Indicators	Baseline	Mid-term Target	End of Project Target	Means of Verification	Assumptions
	- population number and reproduction success in local nesting populations of waterfowl					
	4b. Ecosystem and biodiversity indicators: - ecosystem health indicators for valuable steppe, meadow and forest steppe habitats - ecosystem restoration indicators *(Indicator species to be confirmed for individual pilot sites)*	Baseline values to be identified in the first year of the project implementation	Stable or increase relative to baseline	Stable or increase relative to baseline	Biannual monitoring from national partners (e.g. PAs) in appropriate pilot project sites	- Project lifetime is sufficient to allow impacts to be generated and monitored - New threats do not emerge
Component 1: Integrated Landscape Management principles and practices adopted, tested and promoted for Northern Kazakhstan Landscape	5. Land use practices in Northern Kazakhstan Landscape (NKL) transformed to avoid ecosystem and land degradation in the long run	Business-as-usual landuse practices lead to ecosystem and land degradation	Enabling environment created for transformation of land-use practices in three municipalities (rural okrugs, or districts– Karamendinsky, Belovsky, Makinsky) covering 228,323 ha within Northern Kazakhstan Landscape (NKL)	Sustainable land use practices demonstrated in three municipalities (rural districts – Karamendinsky, Belovsky, Makinsky) covering 228,323 ha within NKL	Project reports and documentation; Successful completion of project activities for relevant project components, as verified by the MTR and TE.	- Project risk management strategy is instrumental in management of moderate/high risks that derail implementation - ILUP as a mainstream land use planning modality is supported at appropriate scales
	6. Status of integrated land use planning in Northern Kazakhstan	No integrated land use planning	Inter-ministerial Task Force chaired by the Ministry of Agriculture oversees development and adoption of policies/regulations (new or amended) to enable implementation of NKL and LDN principles. Issues of perverse fiscal subsidies in agriculture and discrimination in favor of large-scale farmers	Integrated land-use plans at the municipal level three municipalities (rural districts – Karamendinsky, Makinsky, Belovsky) covering 228,323 within NKL elaborated, consulted, and adopted by authorities	Project reports and documentation; Successful completion of project activities for relevant project components, as verified by the MTR and TE.	- Project risk management strategy is instrumental in management of moderate/high risks that derail implementation - Land use management authorities and planners at all levels are open to cooperation

	Indicators	Baseline	Mid-term Target	End of Project Target	Means of Verification	Assumptions
			addressed at the governmental level			
	7. Capacities of national meteorological observation and forecasting services strengthened to ensure better decision making by land users in NKL	Limited capacities supporting land use decision-making	Capacity needs assessment performed; methodologies for data collection, processing and presentation to relevant authorities developed	Capacity building activities performed for 15 agro-meteorological stations	Results of capacity needs assessment at the project start and the end-of-project capacity assessment for selected meteorological stations	Capacities at the level of land-use decision makers are sufficient to effectively use and interpret data from improved meteorological observation and forecasting services
Component 2: Sustainable food production practices and responsible value chains promoted for NKL	8. Area on which producers apply improved agricultural practices as measured by SDG 2.4.1 (area under sustainable agriculture) (FOLUR Component 2 Outcome Indicator 2 / GEF Core Indicator 4)	0	0 (project not yet at stage where area-based results are achieved)	- 186,697 ha to demonstrate diversification and improved management of productive croplands for better incomes and less soil depletion (Output 2.2.) - 298,826 ha on sustainable perennial crop systems as diversification from unsustainable production of wheat and other crops (Output 2.3);	GIS analysis of project partner production area, validated by terminal evaluation	- Project agriculture partners apply improved practices based on support provided through project - The project is able to engage a sufficient number of SME agriculture partners to achieve the target within the lifetime of the project
	9. Market share of wheat market in Northern Kazakhstan ascribed to cooperative platform for "green" wheat production Contributing to FOLUR Component 2 Outcome Indicator 4: Number of companies / value chain organizations engaged in multi-stakeholder partnership	0% (platform not yet established)	0% ("green" wheat cooperative platform still in development)	Companies representing 5% of the wheat market in Northern Kazakhstan, in production volume (minimum meaningful change from baseline that will provide for sustainability of the Platform; represents the ratio of wheat produced by the Platform participants in the total volume of wheat production in 4 pilot oblasts)	Number of actors formally engaged through the cooperative platform, as reported Companies are engaged when they make their respective (=green wheat trading) reporting publicly available	- There are no critical issues involved in establishing partnership platform, so that private sector companies are willing to formally participate - The project can effectively establish communication with the necessary number of private sector partners

	Indicators	Baseline	Mid-term Target	End of Project Target	Means of Verification	Assumptions
	10. Public and private investments leveraged in support of sustainable commodity value chains through PPP or adoption of sustainability standards and practices *(Project specific: Amount of public and private investment leveraged in support of sustainable production and marketing of "green" wheat originating from NKL, as measured by (1) "investment mobilized" figure of co-financing given to Component 2 (evidence – co-financing letters) + any new and additional investment leveraged outside the committed co-financing resources)* (FOLUR Component 2 Outcome Indicator 8)	0	US$ 500,000 as private investments US$ 5,000,000 as public investments	US$ 1,700,000 as private investments US$ 11,000,000 as public investments	For (1) letters of co-financing and annual tracking of co-financing through PIRs; For (2) regular tracking by project manager of any new commitments from any relevant companies and public sources that directly support green wheat production in Northern Kazakhstan Landscape	- Public and private project partners contribute investment at foreseen levels - Partner contributions support the project objective of sustainable livestock value chains in Northern Kazakhstan, as planned
	11. Area of degraded land restored for sustainable use and production (FOLUR Component 2 Outcome Indicator 1 / GEF-7 Core Indicator 3.1)	0	0 (project activities not yet at stage where land is restored)	- 152,117 ha (10 plots) of degraded productive grasslands (pastures and hay making plots) restored and set under sustainable pasture management (Output 2.4)	Project reports and documentation, e.g. annual reporting in PIR; Successful completion of project activities for relevant project components, as verified by the MTR and TE.	- Baseline level of degradation can be adequately assessed, and changes observed, monitored and documented within project lifetime - New threats do not emerge (or rate of impact of threats does not significantly change)
	12. Number of national multi-stakeholder dialogue mechanisms / platforms effectively operated for sustainable commodity supply chains and across commodities (FOLUR Component 2 Outcome Indicator 6)	N/A (no mechanisms / platforms yet established by project)	0	1 (Output 2.6; Cooperative platform with wheat exporters and retail companies	Project reports and documentation, e.g. annual reporting in PIR; Successful completion of project activities for relevant project components, as verified by the MTR and TE.	- Potential private sustainable commodity supply chain partners remain willing and interested based on terms to be defined for sustainable commodity supply chains

	Indicators	Baseline	Mid-term Target	End of Project Target	Means of Verification	Assumptions
Component 3: Critical natural habitats in the Northern Kazakhstan landscape are restored and conserved	13. Area of land where degradation is **avoided** in natural steppe, meadow steppe, forest-steppe and wetland habitats within PAs, through setting high value nature ecosystems under protection and targeted strengthening of capacities of PA authorities and staff (Protected Areas and other areas of special conservation management where destructive activities are strongly prohibited by their regime) (FOLUR Component 3 Outcome Indicator 3 / GEF-7 Core Indicator 1)	0	324,173 ha (Area of existing directly targeted PAs)	At least 600,000 hectares (project should be supporting avoiding any degradation within PAs from the beginning of the project): - - eco corridor (IUCN cat.IV) for protection of steppe, meadow-steppe and forest-steppe ecosystems at an area of ca.250,000 ha; - new Turkty PA Refuge (IUCN cat.VI) at 53,059 ha for higher protection of patchy pine and birch forests, steppes dominated with *Stipa zalesskii*, steppes dominated with *Helictothrichon desertorum*, relic pine forests, stony steppes, fallow lands, meadows and bogs; - 370,174 ha of existing PAs with strengthened management capacities	Project reports and documentation, e.g. annual reporting in PIR; Successful completion of project activities for relevant project components, as verified by the MTR and TE. Based on legally adopted land planning documents (PA statuses with official maps, etc)	- Without project interventions, degradation will continue in natural habitats within PAs - Strengthening capacities of PAs at institutional and individual levels will contribute to reduced degradation
	14. Landscape area with **reduced** conversion and degradation of natural forest, grassland, and wetland habitats: Area of such ecosystems outside PAs with improved management for biodiversity through the implementation of buffer zones and corridors (PA corridors and buffer zones identified in district integrated management plans and	0	0 (project activities not yet at stage where land is restored)	5,000 hectares Area of reduced conversion and protected from degradation due to various drivers of degradation (over-cutting, wildfires, changing hydrological regime, etc): 1. 3,000 hectares of high nature value birch-	GIS analysis of integrated management plan maps, validated by terminal evaluation	- District authorities are able and willing to apply and implement integrated management plans in other district land use planning policies and procedures - Strengthening capacities of land use planning authorities and staff will contribute to the establishment and implementation of PA

	Indicators	Baseline	Mid-term Target	End of Project Target	Means of Verification	Assumptions
	adopted) (FOLUR Component 2 Outcome Indicator 7)			aspen patchy forests protected from conversion into unforested areas 2. Natural succession to healthy semi-natural grasslands secured for 1,000 hectares of fallow lands; 3. Conversion into other habitats (arable, tree plantations, improved grasslands, etc.) and degradation due to any drivers (over-grazing, under-grazing, excessive and unseasonable fires, using fertilizers, etc) prevented for 1,000 hectares of valuable steppe grasslands		buffer zones and corridors
	15. Area of degraded land restored for conservation and ecosystem services (Area of degraded ecosystems restored) (FOLUR Component 3 Outcome Indicator 4 / GEF Core Indicator 3.4)	0	0 (project activities not yet at stage where land is restored)	- 5,000 ha of high conservation value birch-aspen patchy forests restored (pest and disease management); - 4,600 ha of wetland, lake and riparian ecosystems restored	GIS analysis of targeted project intervention areas	- Project restoration activities can be completed in project timeframe - Restoration measures are successful in restoring ecosystem services
Component 4: Sustainable land use and restoration methods are documented and disseminated to catalyze additional positive changes	16. Capacity development and knowledge management products on sustainable agricultural production (wheat) developed and introduced in training programmes	0	Designed	Long-term vocational and academic training curricula and programs incorporates modules on sustainable agricultural production and biodiversity conservation in productive landscapes	Vocational training of targeted audiences by public sector institutions and academia includes offerings on sustainable crop management	- Public sector and academic institutions are interested and willing to take up project produced training materials - There is sufficient time to identify and document good practices

	Indicators	Baseline	Mid-term Target	End of Project Target	Means of Verification	Assumptions
				for sustainable food production and SLM		
	17. Number of knowledge dissemination events and knowledge products shared beyond FOLUR countries through S-S exchanges, conferences, and global events, including community of practice (FOLUR Component 4 Outcome Indicator 4 / FOLUR Capacity / Training indicator)	0	5	25	Monitoring via annual project reporting (PIR) by project team; Verification at mid-term review and terminal evaluation by independent external experts	- Existing demand for sustainable agricultural products - Existence of S-S opportunities and channels for knowledge sharing
	18. Members of FOLUR-supported Communities of Practice (total number of members; % female) (FOLUR Knowledge indicator)	0	5	10	Monitoring via annual project reporting (PIR) by project team; Verification at mid-term review and terminal evaluation by independent external experts	- Project team, partners, and stakeholders are interested, willing, and have time to participate in FOLUR-supported Communities of Practice - Project team, partners, and stakeholders find value for their personal and professional interests in participating in FOLUR-supported Communities of Practice
	19. Government counterparts and country project team members participating in global, national and regional forums and workshops (e.g. GLF, CGIAR, Good Growth Platform, multi-stakeholder dialogues, S-S exchanges, commodity value chain events, etc.) (total number of participants; % female) (FOLUR Capacity / Training indicator)	0	20 6, 50% female	50 10, 50% female	Monitoring via annual project reporting (PIR) by project team; Verification at mid-term review and terminal evaluation by independent external experts	- Existence of FOLUR-related global, national and regional forums and workshops
	20. Private sector actors or coalitions, commodity value chain events, documents, press releases, etc. citing/using FOLUR products (number)	0	1	1	Monitoring via annual project reporting (PIR) by project team; Verification at mid-term review and terminal evaluation by	- Effective dissemination of FOLUR products

	Indicators	Baseline	Mid-term Target	End of Project Target	Means of Verification	Assumptions
	(FOLUR Policies / Value Chains indicator)				independent external experts	
Cross-cutting: *Gender mainstreaming during implementation*	21. Consistency of project gender mainstreaming approach with project plans	N/A – Project not under implementation; project design includes multiple elements designed to mainstream gender	Gender mainstreaming action plan integrated in project workplan and under implementation	Gender mainstreaming carried out during project implementation, as indicated by: a. Project Board and local stakeholder working groups have gender balance and/or include a gender expert; b. Policies, laws, and regulations developed with project support include gender perspectives, as relevant c. Project events and activities (e.g. trainings) promote gender balance among invited participants, as feasible d. Project technical training activities proactively recruit participants to achieve gender balance e. Project education and awareness activities are developed and carried out incorporating gender perspectives, as relevant	Monitoring via annual project reporting (PIR) by project team; Verification at mid-term review and terminal evaluation by independent external experts	- All relevant stakeholders support or are in accordance with gender mainstreaming efforts undertaken by the project - There are not structural demographic issues that will hamper project gender mainstreaming efforts

	Indicators	Baseline	Mid-term Target	End of Project Target	Means of Verification	Assumptions
				Gender disaggregated indicators are reported on annually		
Cross-cutting: *Contribution to climate change mitigation*	22. Tons of GHG avoided/sequestered (FOLUR Component 3 Outcome Indicator 5 / GEF Core Indicator 6)	N/A (project activities not under implementation)	0 (project activities not yet at stage where GHGs avoided/sequestered	13,124,070 t CO_2	EX-ACT calculation tool	- Per assumptions in EX-ACT tool - Project activities are implemented in the manner foreseen in the areas planned

Note:

At the CEO Endorsement Request stage, for the GEF Core Indicator 11 (The number of direct beneficiaries) a conservative assessment method was applied: project developers qualified and quantified the direct beneficiaries of those project activities that are 100% spatially and technically defined in the Prodoc and are not likely to be amended in the course of the project adaptive management. The following categories were included in the assessment:

1. Number of public sector employees involved in project activities aimed at integrated landscape planning. Three rural okrugs: Karamendinsky rural okrug of Naurzum district of Kostanay Oblast, Belovsky rural okrug of Mamlyutskiy district of North Kazakhstan Oblast, and Makinskiy rural okrug of Birzhansalkskiy district of Akmola Oblast. Individuals directly involved in development of a design (scheme) of functional zoning. Members of and consultants to the district-level land use revision commissions in the Naurzum district of the Kostanay Oblast, the Mamlyutskiy district of the North Kazakhstan Oblast and the Birzhansalkskiy district of the Akmola Oblast: representatives of land management units, agricultural and environmental units of district and rural okrug akimats, representatives of other relevant government organizations and institutions (e.g. protected areas, forestries, fisheries, river basin organizations), oblast-level Kazhydromet offices, members of councils for sustainable economic development under rural akimats, associations or unions of farmers, herders, hunting associations.
2. The stakeholders representatives that will benefit from capacity building activities under Outcome 1: regional inspections of the Land Management Committee of the Ministry of National Economy, River Basin Organizations (RBOs) of the Water Resources Committee of the Ministry of Ecology, Geology and Natural Resources of RK, district-level environmental regulation authorities and agricultural land users. Specifically, the participants of training and development programs for raising key competencies of current akimat staff of land relations, agricultural, natural resources & environmental management departments.
3. Kazhydromet staff directly benefiting from capacity building activities under Outcome 1
4. Number of staff employed in private sector companies directly engaged by the project through implementation of demonstration projects in Akmola, Kostanai, North Kazakhstan and Pavlodar Oblasts to test agro-environmental financial instruments for diversification and improved management of productive croplands (Output 2.2) and perennial crop systems (Output 2.3), and sustainable livestock management (Output 2.4).
5. Direct beneficiaries for Output 2.5: personnel of 15 extension centers that will be trained; potential users of the extension services. Please assess the number
6. Direct beneficiaries of the National Green Wheat Platform
7. Staff of pilot PAs, both existing and planned, hunting management areas, forestry and fishery managers, along with land user groups (livestock breeders, fishermen, agriculturalists, women, etc.), eco-tourism operators, NGOs participating in trainings under Outcome 3 (including those on HCVFs management)
8. Pilot hunting concession beneficiaries (Output 3.1)

9. Forestry specialists and protected areas staff to be trained in the methods of organizing logging of broad-leaved trees, reforestation, biological protection to control pests and forest diseases.
10. Beneficiaries for Output 3.4. fire prevention capacity building
11. Direct beneficiaries of reforestation activities
12. Beneficiaries of lake and wetland restoration activities
13. Staff employed at PAs targeted by the project and directly engaged in PA management capacity building activities under Outcome 3 (as per METT)
14. Participants of KM activities under Output 4.3

V. MONITORING AND EVALUATION (M&E) PLAN

152. The project results, corresponding indicators and mid-term and end-of-project targets in the project results framework will be monitored annually and evaluated periodically during project implementation. If baseline data for some of the results indicators is not yet available, it will be collected during the first year of project implementation. The Monitoring Plan included in Annex details the roles, responsibilities, and frequency of monitoring project results.

153. Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the UNDP POPP and UNDP Evaluation Policy. The UNDP Country Office is responsible for ensuring full compliance with all UNDP project monitoring, quality assurance, risk management, and evaluation requirements.

154. Additional mandatory GEF-specific M&E requirements will be undertaken in accordance with the GEF Monitoring Policy and the GEF Evaluation Policy and other relevant GEF policies[8]. The costed M&E plan included below, and the Monitoring plan in Annex, will guide the GEF-specific M&E activities to be undertaken by this project.

155. In addition to these mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed during the Project Inception Workshop and will be detailed in the Inception Report.

Additional GEF monitoring and reporting requirements

Inception Workshop and Report

156. A project inception workshop will be held within 60 days of project CEO endorsement, with the aim to:

a. Familiarize key stakeholders with the detailed project strategy and discuss any changes that may have taken place in the overall context since the project idea was initially conceptualized that may influence its strategy and implementation.
b. Discuss the roles and responsibilities of the project team, including reporting lines, stakeholder engagement strategies and conflict resolution mechanisms.
c. Review the results framework and monitoring plan.
d. Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFP and other stakeholders in project-level M&E.
e. Update and review responsibilities for monitoring project strategies, including the risk log; SESP report, Social and Environmental Management Framework and other safeguard requirements; project grievance mechanisms; gender strategy; knowledge management strategy, and other relevant management strategies.
f. Review financial reporting procedures and budget monitoring and other mandatory requirements and agree on the arrangements for the annual audit.
g. Plan and schedule Project Board meetings and finalize the first-year annual work plan.
h. Formally launch the Project.

Annual reporting to the GEF and the FOLUR Global Platform

157. The annual GEF Project Implementation Report (PIR) covering the reporting period July (previous year) to June (current year) will be completed for each year of project implementation. Any environmental and social risks and related management plans will be monitored regularly, and progress will be reported in the PIR. The PIR submitted to the GEF will be shared with the Project Board. The quality rating of the previous year's PIR will be used to inform the preparation of the subsequent PIR.

158. In addition, as requested for participation in the FOLUR Global Platform, the project will provide annual reporting to the FOLUR Global Platform. The project will make an individual contribution to the FOLUR IP annual report (co-ordinated by the FOLUR Program Manager and the Global Platform team) that will be communicated to the GEF, partner agencies, and the wider community and inform about achievements and strategies of the IP and its child projects. Through the annual

[8] See https://www.thegef.org/gef/policies_guidelines

report, the project will be expected to provide data on the results framework indicators, narrate the project results and acheivements, outline issues and problems, report on risks, and collect lessons learned. The project, guided by the Global Platform Communications and KM team, will be expected to gather and document success stories to feature in the annual report. The project will also make inputs to an excel-based Work Plan Output Tracking Tool (WPOTT) that has been developed by the Global Platform to track achievement of major outputs that are critical milestones in supporting and achieving the overall program implementation success.

GEF Core Indicators, Project Results Framework indicators, and FOLUR Global Platform indicators

159. The GEF Core indicators included as Annex 7 will be used to monitor global environmental benefits and will be updated for reporting to the GEF prior to MTR and TE. Note that the project team is responsible for updating the indicator status. The updated monitoring data should be shared with MTR/TE consultants prior to required evaluation missions, so these can be used for subsequent ground truthing. The methodologies to be used in data collection have been defined by the GEF and are available on the GEF website. The project will also report annually on the Results Framework indicators, and the Global Platform indicators (as guided by the Global Platform team).

Independent Mid-term Review (MTR)

160. The terms of reference, the review process and the final MTR report will follow the standard templates and guidance for GEF-financed projects available on the UNDP Evaluation Resource Center (ERC).

161. The evaluation will be 'independent, impartial and rigorous'. The evaluators that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Equally, the evaluators should not be in a position where there may be the possibility of future contracts regarding the project under review.

162. The GEF Operational Focal Point and other stakeholders will be actively involved and consulted during the evaluation process. Additional quality assurance support is available from the BPPS/GEF Directorate.

163. The final MTR report and MTR TOR will be publicly available in English and will be posted on the UNDP ERC by December 31, 2023. A management response to MTR recommendations will be posted in the ERC within six weeks of the MTR report's completion.

Terminal Evaluation (TE)

164. An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance for GEF-financed projects available on the UNDP Evaluation Resource Center.

165. The evaluation will be 'independent, impartial and rigorous'. The evaluators that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Equally, the evaluators should not be in a position where there may be the possibility of future contracts regarding the project being evaluated.

166. The GEF Operational Focal Point and other stakeholders will be actively involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the BPPS/GEF Directorate.

167. The final TE report and TE TOR will be publicly available in English and posted on the UNDP ERC by March 31, 2026. A management response to the TE recommendations will be posted to the ERC within six weeks of the TE report's completion.

Final Report

168. The project's terminal GEF PIR along with the terminal evaluation (TE) report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

Agreement on intellectual property rights and use of logo on the project's deliverables and disclosure of information

169. To accord proper acknowledgement to the GEF for providing grant funding, the GEF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GEF will also accord proper acknowledgement to the GEF. Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy[9] and the GEF policy on public involvement[10].

Monitoring and Evaluation Plan and Budget:			
GEF M&E requirements	**Responsible Parties**	**Indicative costs (US$)**	**Time frame**
Inception Workshop	Implementing Partner Project Team	$5,000	Within 60 days of CEO endorsement of this project.
Inception Report	Project Team	None	Within 90 days of CEO endorsement of this project.
Monitoring of indicators in project results framework	Project Team will oversee national institutions/agencies charged with collecting results data	$10,000 ($2,000/yr)	Annually prior to GEF PIR. This will include GEF core indicators. BD indicators assessed separately (below)
Assessment of BD conservation risks, selection of BD indicators (species/ecosystem health), baseline and final assessment of BD status upon completion of demonstration projects. Assessment of ecosystem restoration success. BD assessment for a concession pilot (budgeted under Outcome 3, Contractual Services – Company, $76,900. Results of assessments will inform M&E)	Bedgeted separately under Outcome 3 with some additional assessment/monitoring elements embedded into demo project design. Project Team will oversee data collection as part of demo project implementation	None	Upon completion of demonstration projects under Outcomes 2 and 3 that have direct effect on key BD values and sensitive habitats
GEF Project Implementation Report (PIR)	Regional Technical Advisor UNDP Country Office Project Team	None	Annually (between June-August)
Monitoring all risks (UNDP risk register)	UNDP Country Office Project Team	None	Ongoing
Monitoring of safeguards, stakeholder engagement plan, and gender action plan	UNDP Country Office Project Team	None	Ongoing
Project Board Meeting Minutes and Reports	Implementing Partner Project Team	None	Annually
Lessons learned and knowledge generation	Project Team	$8,000 ($2,000/yr for final 4 years) (Outcome 4)	Annually
Supervision missions	UNDP Country Office	None	Annually
Oversight / troubleshooting missions	RTA and BPPS/GEF	None	Troubleshooting as needed
Mid-term GEF Core indicators	Implementing Partner Project Team as part of PIR at mid-term	None	Before mid-term review mission takes place

[9] See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/
[10] See https://www.thegef.org/gef/policies_guidelines

Independent Mid-term Review (MTR)	Independent evaluators	$39,900	~36 months after project inception workshop, +/- 3 months
Terminal GEF Core indicators, FHF ER calculations, FOLUR corporate indicators	Implementing Partner and Project Team as part of preparation of documents for TE	None	Before terminal evaluation mission takes place
Independent Terminal Evaluation (TE)	Independent evaluators	$39,900	3-6 months before project completion (estimated 2nd quarter of 2026, assuming Q4 2021 start)
Translation of MTR and TE reports into English / Russian / Kazakh	UNDP Country Office	$5,000	Within 3 months after completion of MTR and TE reports
TOTAL indicative COST		$107,800	

• GOVERNANCE AND MANAGEMENT ARRANGEMENTS

Roles and responsibilities of the project's governance mechanism

Implementing Partner and Responsible Parties

170. The Ministry of Agriculture of the Republic of Kazakhstan (MoA) will act as an Implementing Partner for the project. The IP has full legal/regulatory mandate and experience in the same capacity for UNDP projects since 2000. The MoAs capacity to act as IP is confirmed by the Partner Capacity Assessment (PCAT) presented as a separate annex to this Project Document.

171. The Implementing Partner is the entity to which the UNDP Administrator has entrusted the implementation of UNDP assistance specified in this signed project document along with the assumption of full responsibility and accountability for the effective use of UNDP resources and the delivery of outputs, as set forth in this document.

172. The Implementing Partner is responsible for executing the following aspects of the project:

a. Project planning, coordination, management, monitoring, evaluation and reporting. This includes providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.
b. Risk management as outlined in this Project Document;
c. Control over procurement of goods and services, including human resources;
d. Financial controls, including overseeing financial expenditures against project budgets;
e. Approving and signing the multiyear workplan;
f. Approving and signing the combined delivery report at the end of the year; and,
g. Signing the financial report or the funding authorization and certificate of expenditures.

173. The Partner Capacity Assessment Tool (PCAT) confirmed that the MoA has the executive power mandate in the field of full relevance for the project and responds to the key programmatic criteria and has capacities to ensure quality programme management, provide synergies, replicate and upscape project results, mobilise development partners and ensure national-level co-financing for the project. IP has experience and technical capacity to supervise, monitor, and ensure adaptive management and risk response towards delivery of project outcomes and outputs.

MoA has been involved in management and oversight of GEF projects before, however, it has never received and operated GEF resources (channeled by the GEF agencies) directly, as the earlier projects were implemented with agency support. Financial execution of a stand-alone donor-funded project or programme is beyond the scope and mandate of the Ministry. It is beyond the administrative capacities, internal regulations and fiscal policies of the IP to ensure procurement, contract management, accounting/finance functions and controls for the project. Hence the IP will have substantive supervisory functions and roles, while the project administration capacities and functions (contracting, recruitment of personnel and

experts, finance administration and administrative support to project processes) will be executed by NASEC as a Responsible Party. The IP will sign an Agreement with NASEC with specific requirements and standards corresponding with the GEF and UNDP project management rules and regulations. As an integral part of the Project Document, the IP and UNDP will furher outline the governance and management arrangements in more detail, particularly as pertinent to financial management, monitoring, reporting, and oversight related aspects.

174. Two responsible parties (RPs) will be engaged in financial and administrative project execution support. The IP (MoA) communicated to UNDP officially which RPs the IP is willing to engage. Subsequently the choice of RPs was discussed and agreed between the IP and UNDP. On this basis, UNDP arranged for independent HACT assessments of the two RPs to confirm their suitability and capacities. HACT assessments have been conducted by independent auditors for both RPs, confirming low overall risks associated with their capacity to support project execution.

175. Non-commercial JSC "National Agrarian Science and Education Center" (NASEC) will carry out financial and administrative execution support services that can no longer be supplied by UNDP, i.e. direct management of project finance and financial reporting, procurement, contracting, HR management and administrative support. The JSC KazAgro will be the Responsible Party for the project activities related to the sustainable financial mechanisms and agro-environmental incentives (Output 2.1). In line with UNDP rules, actual contracting of RP(s) will take place after project approval during the inception phase.

Project stakeholders and target groups

176. The participation and contribution of stakeholders and key target groups is critical for the success of the project, for stakeholders at both the national and local levels. The project applies multiple strategies and mechanisms to ensure stakeholder engagement. First and foremost is the Project Board (as discussed further below), involving the Ministry of Agriculture as the primary beneficiary, and UNDP as the supplier. UNDP and the Ministry of Agriculture have a long history of collaboration and successful project completion in Kazakhstan, including multiple previous GEF-funded projects. The project will ensure gender balance and gender sensitivity are mainstreamed throughout all aspects of the project's stakeholder engagement approach.

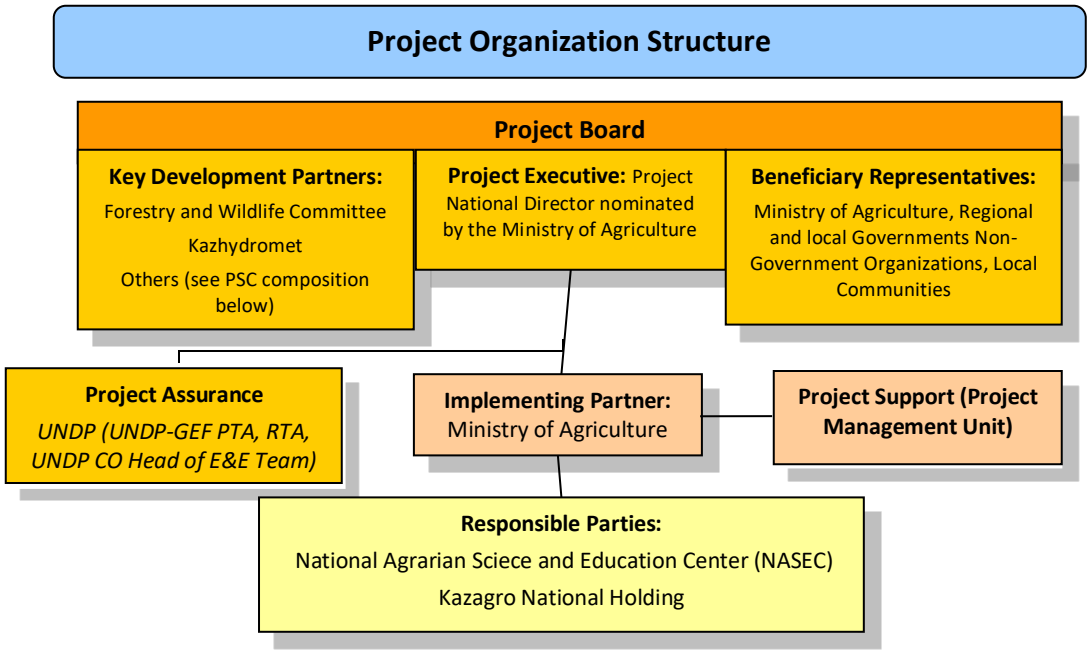
177. Project stakeholders and target groups are regional and local government of Akmola, Kostanay, North Kazakhstan and Pavlodar regions, National Company Food Contract Corporation. (NC FCC), Kazakhstan Federation of Organic Farming Movement, Analytical center of Economic Policy and Agricultural Sector, National Chamber of Entrepreneurs of Republic of Kazakhstan "Atameken", Republican state Enterprise "Kazhydromet", JSC Agrarian Credit Corporation, Union of Organic producers, Union of field crops, TOO Agricultural experimental Station "Zarechnoe". The project will facilitate participatory planning processes and support the capacity development of local stakeholders and resource users, which will include private sector companies, local government representatives, agricultural enterprises, PA managers, forest managers, and other site-specific key stakeholders. In addition, the project has multiple education and awareness activities planned that will engage local communities and stakeholders in addressing sustainable land management and conservation of biodiversity. Formal and informal partnerships will be developed and established with gender balance, and gender mainstreaming approaches in mind.

178. The project will highlight at various points the mechanisms and channels of communication that stakeholders may employ if they have any grievances related to the social and environmental impacts of the project. For example, this point will be indicated during the project inception workshop, and through the project education and awareness activities.

UNDP

179. UNDP is accountable to the GEF for the implementation of this project. This includes oversight of project execution to ensure that the project is being carried out in accordance with agreed standards and provisions. UNDP is responsible for delivering GEF project cycle management services comprising project approval and start-up, project supervision and oversight, and project completion and evaluation. UNDP is also responsible for the Project Assurance role of the Project Board.

Project organization structure:



Project Board

180. The Project Board is responsible for taking corrective action as needed to ensure the project achieves the desired results. In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition.

181. In case consensus cannot be reached within the Board, the UNDP Resident Representative (or their designate) will mediate to find consensus and, if this cannot be found, will take the final decision to ensure project implementation is not unduly delayed.

182. Specific responsibilities of the Project Board include:

a. Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
b. Address project issues as raised by the project manager;
c. Provide guidance on new project risks, and agree on possible mitigation and management actions to address specific risks;
d. Agree on project manager's tolerances as required, within the parameters set by UNDP-GEF, and provide direction and advice for exceptional situations when the project manager's tolerances are exceeded;
e. Advise on major and minor amendments to the project within the parameters set by UNDP-GEF;
f. Ensure coordination between various donor and government-funded projects and programmes;
g. Ensure coordination with various government agencies and their participation in project activities;
h. Track and monitor co-financing for this project;
i. Review the project progress, assess performance, and appraise the Annual Work Plan for the following year;
j. Appraise the annual project implementation report, including the quality assessment rating report;
k. Ensure commitment of human resources to support project implementation, arbitrating any issues within the project;
l. Review combined delivery reports prior to certification by the implementing partner;
m. Provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
n. Address project-level grievances;
o. Approve the project Inception Report, Mid-term Review and Terminal Evaluation reports and corresponding management responses;
p. Review the final project report package during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.
q. Ensure highest levels of transparency and take all measures to avoid any real or perceived conflicts of interest.

183. The composition of the Project Board must include the following roles:

a. *Project Executive*: Is an individual who represents ownership of the project and chairs the Project Board. The Executive is normally the national counterpart for nationally implemented projects. The Project Executive will be nominated by the project Implementing Partner at the project Inception Phase and act as the Project National Director throughout the project implementation.

b. *Beneficiary Representative(s)*: Individuals or groups representing the interests of those who will ultimately benefit from the project. Their primary function within the board is to ensure the realization of project results from the perspective of project beneficiaries. Often civil society representative(s) can fulfil this role. The direct beneficiaries include regional and district-level governments (Akimats of Akmola, Kostanai, North Kazakhstan and Pavlodar Oblasts and the pilot project discticts), Forestry Management Units of the target areas, local hunting and fishing entities, protected area administrations, agricultural procuders and farms in the Northern Kazakhkstan, rural consumer cooperatives, country farms, individual farmers, local communities. The beneficiary representatives will be confirmed during the project Inception Phase.

c. *Development Partner(s)*: Individuals or groups representing the interests of the parties concerned that provide funding and/or technical expertise to the project. The Development Partner(s) include the central government authorities and line ministries such as the Ministry of Agriculture, the Forests and Wildlife Committee of Ministry of Ecology, Geology and Natural Resources, Kazhydromet, Analytical Center of Economic Policy in the Agricultural Sector (ACEPAS), National Chamber of Entrepreneurs Atameken/ Center of Agrarian Competence (CAC), Agricultural Experimentation Station "Zarechnoe, farmer associations, CSOs abd relevant academic institutions. Development partners' representatives will be confirmed during the project Inception Phase.

d. *Project Assurance:* UNDP performs the quality assurance and supports the Project Board and Project Management Unit by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed, and conflict of interest issues are monitored and addressed. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. UNDP provides a three – tier oversight services involving the UNDP Country Offices and UNDP at regional and headquarters levels. Project assurance is totally independent of project execution.

Project extensions

184. The UNDP Resident Representative and the UNDP-GEF Executive Coordinator must approve all project extension requests. Note that all extensions incur costs and the GEF project budget cannot be increased. A single extension may be granted on an exceptional basis and only if the following conditions are met: one extension only for a project for a maximum of six months; the project management costs during the extension period must remain within the originally approved amount, and any increase in PMC costs will be covered by non-GEF resources; the UNDP Country Office oversight costs in excess of the CO's Agency fee specified in the DOA during the extension period must be covered by non-GEF resources.

VI. FINANCIAL PLANNING AND MANAGEMENT

185. The total cost of the project is USD $142,774,166. This is financed through a GEF grant of *USD* $10,467,000; and USD $132,307,166 in parallel co-financing. UNDP, as the GEF Implementing Agency, is responsible for the oversight of the GEF resources and the cash co-financing transferred to UNDP bank account only.

186. Confirmed Co-financing: The actual realization of project co-financing will be monitored during the mid-term review and terminal evaluation process and will be reported to the GEF. The detailed invormation on pledged co-financing commitments, associated project Outputs/Activities, risks and risk mitigation measures in presented in Annex 26.

187. Budget Revision and Tolerance: As per UNDP requirements outlined in the UNDP POPP, the project board will agree on a budget tolerance level for each plan under the overall annual work plan allowing the project manager to expend up to the tolerance level beyond the approved project budget amount for the year without requiring a revision from the Project Board. Should the following deviations occur, the Project Manager/CTA and UNDP Country Office will seek the approval of the BPPS/GEF team to ensure accurate reporting to the GEF: a) Budget re-allocations among components in the project budget with amounts involving 10% of the total project grant or more; b) Introduction of new budget items that exceed 5% of original GEF allocation.

188. Any over expenditure incurred beyond the available GEF grant amount will be absorbed by non-GEF resources (e.g. UNDP TRAC or cash co-financing).

189. Audit: The project will be audited as per UNDP Financial Regulations and Rules and applicable audit policies. Audit cycle and process must be discussed during the Inception workshop. If the Implementing Partner is an UN Agency, the project will be audited according to that Agencies applicable audit policies.

190. Project Closure: Project closure will be conducted as per UNDP requirements outlined in the UNDP POPP. All costs incurred to close the project must be included in the project closure budget and reported as final project commitments presented to the Project Board during the final project review. The only costs a project may incur following the final project review are those included in the project closure budget.

191. Operational completion: The project will be operationally completed when the last UNDP-financed inputs have been provided and the related activities have been completed. This includes the final clearance of the Terminal Evaluation Report (that will be available in English) and the corresponding management response, and the end-of-project review Project Board meeting. **Operational closure must happen within 3 months after posting the TE report to the UNDP ERC**. The Implementing Partner through a Project Board decision will notify the UNDP Country Office when operational closure has been completed. At this time, the relevant parties will have already agreed and confirmed in writing on the arrangements for the disposal of any equipment that is still the property of UNDP.

192. Transfer or disposal of assets: In consultation with the Implementing Partner and other parties of the project, UNDP is responsible for deciding on the transfer or other disposal of assets. Transfer or disposal of assets is recommended to be reviewed and endorsed by the project board following UNDP rules and regulations. Assets may be transferred to the government for project activities managed by a national institution at any time during the life of a project. In all cases of transfer, a transfer document must be prepared and kept on file[11]. The transfer should be done before Project Management Unit complete their assignments.

193. Financial completion (closure): The project will be financially closed when the following conditions have been met: a) the project is operationally completed or has been cancelled; b) the Implementing Partner has reported all financial transactions to UNDP; c) UNDP has closed the accounts for the project; d) UNDP and the Implementing Partner have certified a final Combined Delivery Report (which serves as final budget revision).

194. The project will be financially completed **within 6 months of operational closure or after the date of cancellation**. Between operational and financial closure, the implementing partner will identify and settle all financial obligations and prepare a final expenditure report. The UNDP Country Office will send the final signed closure documents including confirmation of final cumulative expenditure and unspent balance to the BPPS/GEF Unit for confirmation before the project will be financially closed in Atlas by the UNDP Country Office.

195. Refund to GEF: Should a refund of unspent funds to the GEF be necessary, this will be managed directly by the BPPS/GEF Directorate in New York. No action is required by the UNDP Country Office on the actual refund from UNDP project to the GEF Trustee.

[11] See https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PPM_Project%20Management_Closing.docx&action=default

VII. TOTAL BUDGET AND WORK PLAN

Total Budget and Work Plan			
Atlas Award ID:	00112782	Atlas Project/Output ID:	00111140
Atlas Proposal or Award Title:	Promotion of sustainable food systems and improved ecosystems services in Northern Kazakhstan Landscape		
Atlas Business Unit	KAZ10		
Atlas Primary Output Project Title	Promotion of sustainable food systems and improved ecosystems services in Northern Kazakhstan Landscape		
UNDP-GEF PIMS No.	6396		
Implementing Partner	Ministry of Agriculture		

Atlas Activity (GEF Component)	Atlas Implementing Agent (Responsible Party[2] , IP or UNDP)	Atlas Fund ID	Donor Name	Atlas Budgetary Account Code[3]	ATLAS Budget Account Description[3]	Amount Year 2021 (USD)	Amount Year 2022 (USD)	Amount Year 2023 (USD)	Amount Year 2024 (USD)	Amount Year 2025 (USD)	Total (USD)	:
COMPONENT 1: Integrated Landscape Management Systems	**Ministry of Agriculture**	**62000**	**GEF**	71300	Local Consultants	6,000	12,000	12,000	5,000	3,700	38,700	*1*
				71400	Contractual Services - Individ	22,000	43,600	43,600	21,800	-	131,000	*2*
				71600	Travel	3,000	5,000	5,000	5,000	3,000	21,000	*3*
				72100	Contractual Services-Companies	10,000	15,000	13,000	10,000	-	48,000	*4*
				72200	Equipment and Furniture	141,000	166,000	-	-	-	307,000	*5*
				74200	Audio Visual&Print Prod Costs	1,300	5,000	5,000	5,000	3,000	19,300	*6*
				75700	Training, Workshops and Confer	10,000	22,000	23,000	15,000	15,000	85,000	*7*
					sub-total GEF	**193,300**	**268,600**	**101,600**	**61,800**	**24,700**	**650,000**	
					Total Outcome 1	**193,300**	**268,600**	**101,600**	**61,800**	**24,700**	**650,000**	
COMPONENT 2: Promotion of ssustainable food production practices and responsible value chains	**Ministry of Agriculture**	**62000**	**GEF**	71300	Local Consultants	7,800	26,600	14,800	26,800	15,000	91,000	*8*
				71400	Contractual Services - Individ	58,300	58,300	58,300	58,300	58,300	291,500	*9*
				71600	Travel	5,000	8,000	8,000	8,000	5,000	34,000	*10*
				72100	Contractual Services-Companies	-	100,000	187,600	495,000	463,000	1,245,600	*11*
				72200	Equipment and Furniture	307,000	-	15,000	-	-	322,000	*12*
				72300	Materials and Goods		1,265,000	822,400			2,087,400	*13*
				74200	Audio Visual&Print Prod Costs	5,000	8,000	15,000	10,000	8,000	46,000	*14*
				75700	Training, Workshops and Confer	15,000	25,000	30,000	30,000	24,500	124,500	*15*

					sub-total GEF	**398,100**	**1,490,900**	**1,151,100**	**628,100**	**573,800**	**4,242,000**	
					Total Outcome 2	**398,100**	**1,490,900**	**1,151,100**	**628,100**	**573,800**	**4,242,000**	
COMPONENT 3: Conservation and restoration of natural habitats	**Ministry of Agriculture**	**62000**	**GEF**	71300	Local Consultants	39,600	72,700	73,000	74,600	57,200	317,100	*16*
				71400	Contractual Services - Individ	77,800	117,000	112,000	112,000	77,800	496,600	*17*
				71600	Travel	5,000	15,000	15,000	15,000	15,000	65,000	*18*
				72100	Contractual Services-Companies	10,000	698,500	1,714,000	480,000	77,400	2,979,900	*19*
				72200	Equipment and Furniture	253,200	202,800	-	-	-	456,000	*20*
				74200	Audio Visual&Print Prod Costs	5,000	10,000	15,000	23,000	17,400	70,400	*21*
				75700	Training, Workshops and Confer	15,000	35,000	35,000	35,000	30,000	150,000	*22*
					sub-total GEF	**405,600**	**1,151,000**	**1,964,000**	**739,600**	**274,800**	**4,535,000**	
					Total Outcome 3	**405,600**	**1,151,000**	**1,964,000**	**739,600**	**274,800**	**4,535,000**	
COMPONENT 4: Knowledge Management, M&E, and coordination with Global IP platform	**Ministry of Agriculture**	**62000**	**GEF**	71200	International Consultants	-	-	19,500	6,300	19,500	45,300	*23*
				71300	Local Consultants	-	6,000	22,000	2,200	16,000	46,200	*24*
				71400	Contractual Services - Individ	14,700	42,700	42,700	42,700	42,700	185,500	*25*
				71600	Travel	11,600	25,000	29,500	25,000	29,500	120,600	*26*
				72100	Contractual Services-Companies	-		68,700	19,300	-	88,000	*27*
				72400	Communic & Audio Visual Equip	1,000	1,000	1,000	1,000	1,000	5,000	*28*
				74200	Audio Visual&Print Prod Costs	-	4,000	6,000	8,000	8,000	26,000	*29*
				75700	Training, Workshops and Confer	5,000	5,000	5,000	5,000	5,000	25,000	*30*
					sub-total GEF	**32,300**	**83,700**	**194,400**	**109,500**	**121,700**	**541,600**	
					Total Outcome 4	**32,300**	**83,700**	**194,400**	**109,500**	**121,700**	**541,600**	
COMPONENT 5: Project management costs	**Ministry of Agriculture**	**62000**	**GEF**	71400	Contractual Services - Individ	87,900	92,300	96,900	101,800	67,400	446,300	*31*
				72200	Equipment and Furniture	5,100	-	-	-	-	5,100	*32*
				72500	Supplies	1,200	1,200	1,200	1,200	1,200	6,000	*33*
				73200	Premises Alternations	5,000	5,000	5,000	5,000	5,000	25,000	*34*
				74100	Professional Services	-	4,000	4,000	4,000	4,000	16,000	*35*
					sub-total GEF	**99,200**	**102,500**	**107,100**	**112,000**	**77,600**	**498,400**	
					Total Project Management	**99,200**	**102,500**	**107,100**	**112,000**	**77,600**	**498,400**	

SUB-TOTAL GEF	**1,128,500**	**3,096,700**	**3,518,200**	**1,651,000**	**1,072,600**	**10,467,000**	
PROJECT TOTAL	**1,128,500**	**3,096,700**	**3,518,200**	**1,651,000**	**1,072,600**	**10,467,000**	

Summary of Funds:

	Amount Year 1	Amount Year 2	Amount Year 3	Amount Year 4	Amount Year 5	Total
GEF grant administered by UNDP	$1,128,500	$3,096,700	$3,518,200	$1,651,000	$1,072,900	$10,467,000
Sub-total Co-finance	$11,500,000	$34,900,000	$45,500,000	$26,800,000	$13,607,166	$132,307,166
TOTAL	$12,628,500	$37,996,700	$49,018,200	$28,451,000	$14,679,766	$142,774,166

Budget note	**Description**
1	Local consultants: Database & GIS expert, 50% of total costs (52wks, $26,000); Institutional effectiveness & capacity development expert (24 weeks, $14,400); Legal expert, 50% of total costs (15 wks, $9,000); Stakeholder engagement & communication expert (3 weeks, $1,800); Expert on ILUP How-To guide (5 wks, $5,000)
2	Task Leader for Integrated Land Use Planning & Management systems (Outcome 1); based on UNDP SB4, Peg 3, Net $ 33,257 plus 31.1% social insurance, plus 5% annual inflation.
3	Travel costs of the ILUP Task Leader, project technical staff & and local experts (see Notes 1 & 2 above) plus per diem associated with technical implementation of Outcome 1 ($21,000)
4	Subcontracts under Output 1.1 on (1) collection & processing of primary data for landscape level planning for 3 rural okrugs ($30,000); (2) agroclimatic analysis & forecasts for pilot rural okrugs ($6,000); (3) participatory land use planning in 3 rural okrugs ($9,000, $3,000 per rural okrug); and (4) production of educational videos on ILUP (videography) ($3,000)
5	Equipment: Land Surface Model (LSM), 50% of total costs ($282,200); 7 agrometeo stations ($165,900)
6	Translation of project reports & documents into 3 languages (Kazakh, Russian & Eng); translation & issue of publications (lessons learned, how-to-guide), leaflets & brochures for seminars & workshops & other project outreach events to support implementation of Outcome 1 ($19,300)
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 (Outputs 1.1 and 1.2: start-up workshops in 3 rural okrugs for land use planning consultative process; regular meetings of regional working groups on pilot ILUPs; stakeholder consultation workshops & trainings with inputs from participatory land use planning and capacity building experts; Output 1.3: regular meetings of Inter-Agency Task Force Group, 2 times a year. Total $85,000
8	Local consultants: Legal expert, 50% of total costs (15 wks, $9,000); Socio-economist & gender expert, 50% of total costs (52 wks, $28,600); Consultant on financial instruments (10 wks, $7,000); Business planning consultants for 15 regional extension centers (5 wks, $30,000); Logistics expert, 50% of total costs (208 wks, $62,400); Expert on results & lessons learned of demonstration projects (5 wks, $4,000)
9	Project Manager based on UNDP SB4 Peg 5 SC Post Net $37,466 plus 31.1% social insurance, plus 5% annual inflation over 5 years – 60% technical inputs to Outcome 2; Task Leader for Sustainable Food Production & responsible value chains, Outcome 2 based on UNDP SB4, Peg 3, Net $ 33,257 plus 31.1% social insurance, plus 5% annual inflation
10	Travel costs of PM, Sustainable Food Production Task Leader, project technical staff & and local experts plus per diem associated with technical implemenation of Outcome 2 ($34,000)
11	Subsidy program under Output 2.1 ($700,000); Design of a knowledge management web platform and associated techsupport under Output 2.5 ($57,600),ToT trainings ($38,000) Marketing firm(s) to support design, production and development of marketing materials, media campaigns to support the Green Wheat platform under Output 2.6 ($450,000)
12	Equipment: Land Surface Model (LSM), 50% of total costs ($282,200); 7 agrometeo stations ($165,900) associated with demo projects under Outputs 2.2, 2.3; Technical support for 15 regional extension centers under Output 2.5 associated w/ delivery of online trainings and use of the web knowledge management platform (tablets, headphones, microphones, external cameras) - $1,000 per center, $15,000 total

13	Materials and goods – agricultural products and supplies for demonstration projects in agricultural landscapes under Outputs 2.2, 2.3 & 2.4, 19 total ($2,087,400); refer to Annex 17 and Annex 18 for description
14	Translation of project reports & documents into 3 languages (Kazakh, Russian & Eng); translation & issue of publications (lessons learned of demo projects, final publication),leaflets & brochures for seminars & workshops, field visits & other project outreach events to support implementation of Outcome 2 ($46,000)
15	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. Meetings, workshops and conferences for development, implementation, and upscaling of the Green Wheat Platform.Total ($124,500).
16	Local consultants: Database & GIS expert, 50% of total costs (52wks, $26,000); Institutional effectiveness & capacity development expert (120 wks, $72,000); Socio-economist & gender expert, 50% of total costs (52 wks, $28,600); Stakeholder engagement & communication expert (141 wks, $84,600); Logistics expert, 50% of total costs (208 wks, $62,400); Procurement & TechSpecs Specialist (170 wks, $102,000)
17	Task Leader for Conservation & Restoration of natural habitat plus technical inputs to Outcome 3 on forestry (based on UNDP SB4, Peg 3, Net $ 33,257 plus 31.1% social insurance, plus 5% annual inflation); PA and Ecocorridor Specialist (based on UNDP SB3, Peg3, Net $24,832 plus 31.1% social insurance, plus 5% annual inflation); Hunting & Wildlife Management Specialist (based on UNDP SB3, Peg3, Net $24,832 plus 31.1% social insurance, plus 5% annual inflation)
18	Travel costs of Task Leader, PA & Hunting Areas Specialists, project technical staff & and local experts plus per diem associated with technical implemenation of Outcome 3 ($65,000)
19	Scientific, technical and financial feasibility study for Turkty Refuge ($25,000), technical and financial feasibility study for ecocorridor in Kokshetau uplands ($ 20,000); Participatory planning (awareness raising & knowledge creation about new PA and ecocorridor, functions, role, significance & potential among various categories of land users incl communities) - $8,000; Design of training & development programs on eco network functioning for PA staff, forestries, hunting concessions, farmers, communities, reforestation methods, etc (15 modules, $50,000); Development/Update of management plans for PAs, forestries, hunting areas ($30,000); Review & update of wildlife & BD accounting systems for forestries and hunting concessions ($20,000); Design of a undergraduate/graduate course on landscape level BD & wildlife conservation & management ($50,000); Optimization of hunting concession boundaraies ($75,000); a pilot project of financial sustainability of hunting concession ($130,000); GEF financing of forest restoration activities under Output 3.2 ($750,000); GEF financing of 3 forest nurseries of 36 ha ($575,000); support to forest fire protection in 10 pilot forestries and 2 PAs ($650,000); Forest fire protocol dev ($15,000); GEF financing of Output 3.6 demonstration projects on restoration of degraded lakes and wetland ecosystems ($505,000); Assessment of BD conservation risks, selection of BD indicators (species/ecosystem health), baseline and final assessment of BD status upon completion of demonstration projects. Assessment of ecosystem restoration success. BD assessment for a concession pilot ($76,900)
20	Equipment: Upgrading hardware & equipment capacities of KAZNIILHA under Output 3.2 ($253,200); Upgrading capacities of Naurzum State Nature Reserve related to fire protection & prevetion under Output 3.4 ($158,000); lake meteo station ($44,800)
21	Translation of project reports & documents into 3 languages (Kazakh, Russian & Eng); translation & issue of publications (lessons learned of demo projects, final publication, forest reforestration methodology, etc), leaflets & brochures for seminars & workshops, field visits & other project outreach events to support implementation of Outcome 3 ($70,400)
22	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. Consultation meetings & workshops on participatory design of ecocorridor in the Kokshetau Uplands and associated capacity building of stakeholders. Total $150,000
23	Mid-term review and terminal evaluation: 1 international consultant for 30 days @$650/day for both mid-term review and terminal evaluation = $39,000; Invited lecturers/practinioners under Output 4.1 (3wks, $6,300) **(KM costs $6,300; M&E costs $39,000)**
24	Stakeholder engagement & communication expert (12wks, $7,200); Institutional effectiveness & capacity development expert (12wks, $7,200); Mid-term review and terminal evaluation support: $15,900/each. **(KM&coordination costs $14,400; M&E costs $31,800)**
25	Project Manager (based on UNDP SB4 Peg 5 SC Post Net $37,466 plus 31.1% social insurance, plus 5% annual inflation over 5 years – 60% technical inputs to Outcome 4); KM and Outreach Specialist (based on UNDP SB 3, Peg 2, Net $ 20,352 plus 31.1% social insurance, plus 5% annual inflation. It is a 4-year position) **(KM&coordination cost $167,500, M&E cost $18,000)**
26	Travel: Output 4.3: A.) Local travel for participation in communication and outreach events for education and awareness raising and other PR activities ($11,600); B.) International travel for project-sponsored participation in international workshops / conferences / meetings, including global / regional sustainable platform gatherings (2 persons x 1 international trip/year x 5 years = $50,000). Note: Budgeted as per World Bank global FOLUR budgeting guidance; C.) International travel for project-sponsored participation in the Global FOLUR IP Platform (2 people x 1 international trip/year x 5 years = $50,000) Note: Budgeted as per World Bank global FOLUR budgeting guidance.E.) International and national travel related to MTR and TE ($4,500 each) (KM&Coordination costs $111,600; M&E costs $9,000)

27	Design of training & prefessional development programs on sustainable land & pasture management, crop rotation, green production, etc (15 modules, $48,700 each); Design of 6 modules for undergraduate/graduate courses on sustainable land & pasture management, green production, etc ($19,300); a campaign to stimulate demand for sustainable agricultural products ($20,000) **(KM costs $88,000)**
28	Communic & Audio Visual Equip: equipment for connectivity and visualisation (camera, projector, etc.) ($5,000) **(KM&coordination costs $5,000)**
29	Translation of project reports & documents into 3 languages (Kazakh, Russian & Eng); translation & issue of publications, leaflets & brochures for seminars & workshops, field visits & other project outreach events to support implementation of Outcome 4. Includes translation for MTE & FE as well as evaluation reports. **(KM&coordination costs $21,000; M&E costs $5,000)**
30	Project inception workshop and project board meetings ($25,000) **(Coordination costs $20,000; M&E costs $5,000)**
31	Contractual Services – Individ: A.) Project Coordinator (Manager) – UNDP SB4 Peg 5 SC Post Net $37,466 (40% PMC, 60% technical) , plus 31.1% social insurance, plus 5% annual inflation over 5 years. B.) Project Assistant – UNDP SB2 Peg 4 SC Post Net $15,552 (100% PMC), plus 31.1% social insurance, plus 5% annual inflation over 5 years. C) Procurement Specialist - UNDP SB 3, Peg 3, Net $ 24,832 plus 31.1% social insurance, plus 5% annual inflation. It is a 4 year position (YR 21-24); D) Responsible Party Executive Officer part-time 30% based on UNDP SB4 Peg2 Post Net $24,000, plus 31.1% social insurance, plus 5% annual inflation over 5 years E) Responsible Party Accountant part-time 30% based on UNDP SB2 Peg Post Net $15,000, plus 31.1% social insurance, plus 5% annual inflation over 5 years
32	Equipment and Furniture: Office set-up: Laptops, printer, etc. ($5,100)
33	Supplies: Office supplies: paper, printer ink, email subscription, connectivity chares, cell phone charges, etc. ($6,000)
34	Premises Alternations: Maintenance of premises and costs of utilities associated with use of project office, not rent ($25,000)
35	NIM Audit Costs ($4,000 per year, $16,000 total)

VIII. LEGAL CONTEXT

196. This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of Kazakhstan and UNDP, signed on October 4, 1994. All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner."

197. This project will be implemented by Ministry of Energy and Environment ("Implementing Partner") in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

198. The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations or UNDP concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries.

IX. RISK MANAGEMENT

199. Consistent with the Article III of the SBAA, 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. To this end, the Implementing Partner shall:

a. 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;

b. assume all risks and liabilities related to the Implementing Partner's security, and the full implementation of the security plan.

200. 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 the Implementing Partner's obligations under this Project Document.

201. The Implementing Partner agrees to undertake all reasonable efforts to ensure that no 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/sc/committees/1267/aq_sanctions_list.shtml.

202. The Implementing Partner acknowledges and agrees that UNDP will not tolerate sexual harassment and sexual exploitation and abuse of anyone by the Implementing Partner, and each of its responsible parties, their respective sub-recipients and other entities involved in Project implementation, either as contractors or subcontractors and their personnel, and any individuals performing services for them under the Project Document.

a. In the implementation of the activities under this Project Document, the Implementing Partner, and each of its sub-parties referred to above, shall comply with the standards of conduct set forth in the Secretary General's Bulletin ST/SGB/2003/13 of 9 October 2003, concerning "Special measures for protection from sexual exploitation and sexual abuse" ("SEA").

b. Moreover, and without limitation to the application of other regulations, rules, policies and procedures bearing upon the performance of the activities under this Project Document, in the implementation of activities, the Implementing Partner, and each of its sub-parties referred to above, shall not engage in any form of sexual harassment ("SH"). SH is defined as any unwelcome conduct of a sexual nature that might reasonably be expected or be perceived to cause offense or humiliation, when such conduct interferes with work, is made a condition of employment or creates an intimidating, hostile or offensive work environment.

203. In the performance of the activities under this Project Document, the Implementing Partner shall (with respect to its own activities), and shall require from its sub-parties referred to in paragraph 4 (with respect to their activities) that they, have minimum standards and procedures in place, or a plan to develop and/or improve such standards and procedures in order to be able to take effective preventive and investigative action. These should include: policies on sexual harassment

and sexual exploitation and abuse; policies on whistleblowing/protection against retaliation; and complaints, disciplinary and investigative mechanisms. In line with this, the Implementing Partner will and will require that such sub-parties will take all appropriate measures to:

a. Prevent its employees, agents or any other persons engaged to perform any services under this Project Document, from engaging in SH or SEA;

b. Offer employees and associated personnel training on prevention and response to SH and SEA, where the Implementing Partner and its sub-parties referred to in paragraph 4 have not put in place its own training regarding the prevention of SH and SEA, the Implementing Partner and its sub-parties may use the training material available at UNDP;

c. Report and monitor allegations of SH and SEA of which the Implementing Partner and its sub-parties referred to in paragraph 4 have been informed or have otherwise become aware, and status thereof;

d. Refer victims/survivors of SH and SEA to safe and confidential victim assistance; and

e. Promptly and confidentially record and investigate any allegations credible enough to warrant an investigation of SH or SEA. The Implementing Partner shall advise UNDP of any such allegations received and investigations being conducted by itself or any of its sub-parties referred to in paragraph 4 with respect to their activities under the Project Document, and shall keep UNDP informed during the investigation by it or any of such sub-parties, to the extent that such notification (i) does not jeopardize the conduct of the investigation, including but not limited to the safety or security of persons, and/or (ii) is not in contravention of any laws applicable to it. Following the investigation, the Implementing Partner shall advise UNDP of any actions taken by it or any of the other entities further to the investigation.

204. The Implementing Partner shall establish that it has complied with the foregoing, to the satisfaction of UNDP, when requested by UNDP or any party acting on its behalf to provide such confirmation. Failure of the Implementing Partner, and each of its sub-parties referred to in paragraph 4, to comply of the foregoing, as determined by UNDP, shall be considered grounds for suspension or termination of the Project.

a. Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (http://www.undp.org/ses) and related Accountability Mechanism (http://www.undp.org/secu-srm).

b. The Implementing Partner shall: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.

c. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.

d. The Implementing Partner will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, responsible parties, subcontractors and sub-recipients in implementing the project or using UNDP funds. The Implementing Partner will ensure that its financial management, anti-corruption and anti-fraud policies are in place and enforced for all funding received from or through UNDP.

e. The requirements of the following documents, then in force at the time of signature of the Project Document, apply to the Implementing Partner: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. The Implementing Partner agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at www.undp.org.

f. In the event that an investigation is required, UNDP has the obligation to conduct investigations relating to any aspect of UNDP projects and programmes in accordance with UNDP's regulations, rules, policies and procedures. The Implementing Partner shall provide its full cooperation, including making available personnel, relevant documentation, and granting access to the Implementing Partner's (and its consultants', responsible parties', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with the Implementing Partner to find a solution.

205. The signatories to this Project Document will promptly inform one another in case of any incidence of inappropriate use of funds, or credible allegation of fraud or corruption with due confidentiality.

206. Where the Implementing Partner becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, the Implementing Partner will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). The Implementing Partner shall provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

207. UNDP shall be entitled to a refund from the Implementing Partner of any funds provided that have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement. Recovery of such amount by UNDP shall not diminish or curtail the Implementing Partner's obligations under this Project Document.

208. Where such funds have not been refunded to UNDP, the Implementing Partner agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to the Implementing Partner for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

209. *Note:* The term "Project Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors and sub-recipients.

210. Each contract issued by the Implementing Partner in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from the Implementing Partner shall cooperate with any and all investigations and post-payment audits.

211. Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.

212. The Implementing Partner shall ensure that all of its obligations set forth under this section entitled "Risk Management" are passed on to each responsible party, subcontractor and sub-recipient and that all the clauses under this section entitled "Risk Management Standard Clauses" are included, *mutatis mutandis*, in all sub-contracts or sub-agreements entered into further to this Project Document.

X. ANNEXES

List of Annexes

Annex 1: Project map and geospatial coordinates of the project area

Annex 2: Multi-Year Work Plan

Annex 3: UNDP Social and Environmental Screening Procedure (SESP)

Annex 4: UNDP Risk Register

Annex 5: Monitoring Plan

Annex 6: Project Theory of Change Diagram

Annex 7: GEF Core Indicators at Baseline

Annex 8: Carbon calculations tracking tool (EX-ACT) (separate file)

Annex 9: GEF 7 Taxonomy

Annex 10: Overview and responsibilities of project staff and contractors

Annex 11: Initial Project Procurement Plan (separate file)

Annex 12: Comprehensive Stakeholder Engagement and Communication Plan

Annex 13: Stakeholders consulted during project development

Annex 14: Gender Analysis and Gender Action Plan

Annex 15: Green Value Chain Report

Annex 16: Analysis of LDN incentives and financial instruments at PPG (separate file)

Annex 17: Demonstration projects for Output 2.2. on diversification and improved management of productive croplands, Output 2.3 on sustainable perennial crop systems

Annex 18: Demonstration projects for Output 2.4 on sustainable livestock management and seed production methods

Annex 19: Extension services to agribusiness in Kazakhstan: a baseline summary

Annex 20: A Draft Concept for the Cooperative platform with wheat exporters and retail companies for Northern Kazakhstan

Annex 21: Demonstration projects for Output 3.5 for restoring productivity of degraded lake and wetland ecosystems in NKL

Annex 22: A Draft Concept for a National Experience Exchange Platform

Annex 23: Targeted capacity building for the forestry management units

Annex 24: Targeted capacity building for agrometeorological services

Annex 25: Kokshetau Uplands econet description

Annex 26: Project Co-financing Commitments

Annex 27: Co-financing letters (separate file)

Annex 28: Validation Workshop Report

The following Annexes have been completed/prepared as separate documents. They will be made available to the LPAC members. They do not need to be submitted to the GEF and do not need to be part of the project document that is signed by the relevant parties:

- Partners Capacity Assessment Tool assessments of Project Implementing Partner and Responsible Parties [*completed by PPG Team and UNDP Country Office in consultation with the RTA]*
- HACT assessment of Responsible Parties [*completed by independent HACT LTA Company procured by UNDP Country Office]*
- UNDP Project Quality Assurance Report (to be completed in UNDP online corporate planning system)

Annex 1: Project map

Link to full-size maps and geo-spatial coordinates of the area:
https://drive.google.com/drive/folders/1NWrNTgQG5gF8L5hSFXy2054-q7oIXZcg?usp=sharing

Figure 1-1. Administrative Map of Kazakhstan

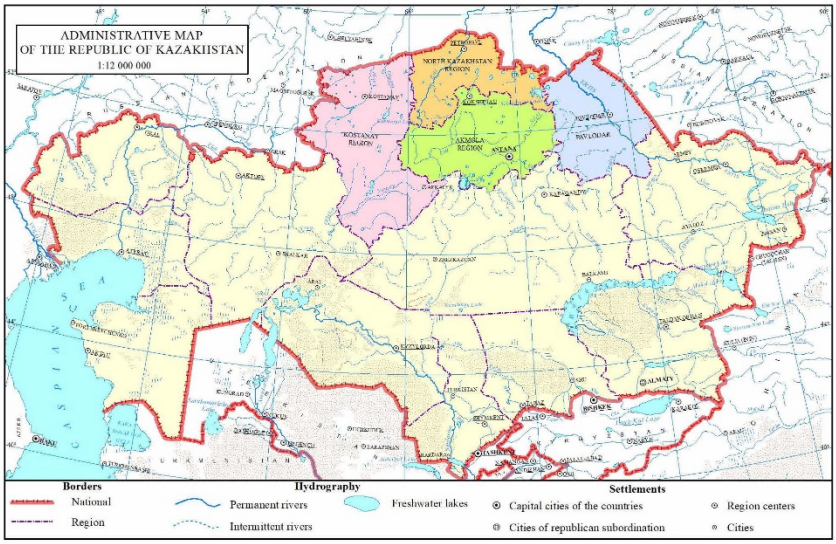


Figure 1-2. Proposed ecological network “Kokshetau Uplands” in the NKL

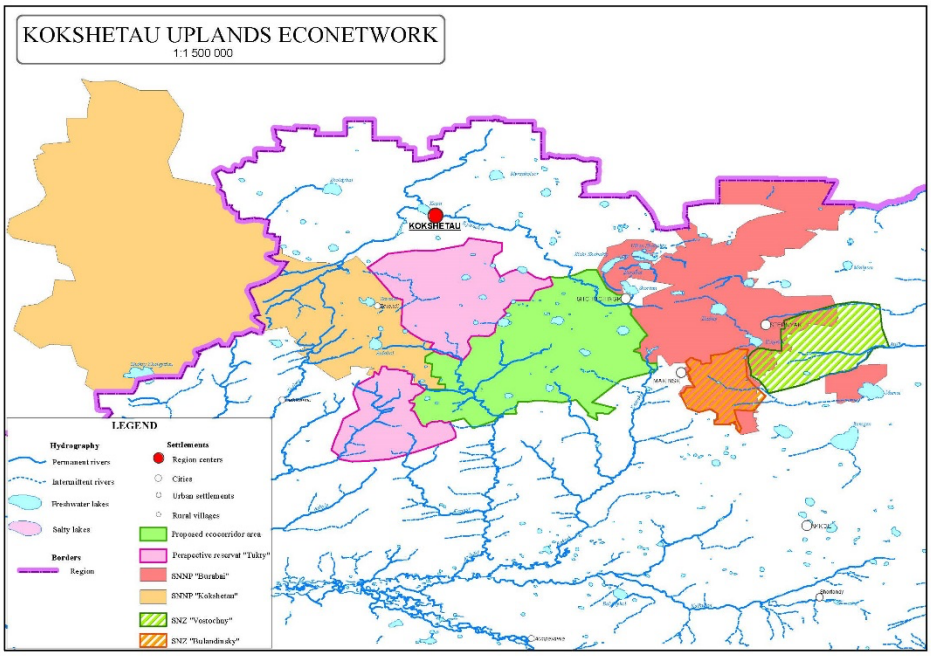


Figure 1-3. Land Use Map of Belovsky Rural County (Okrug), Pilot ILUP—North Kazakhstan Oblast

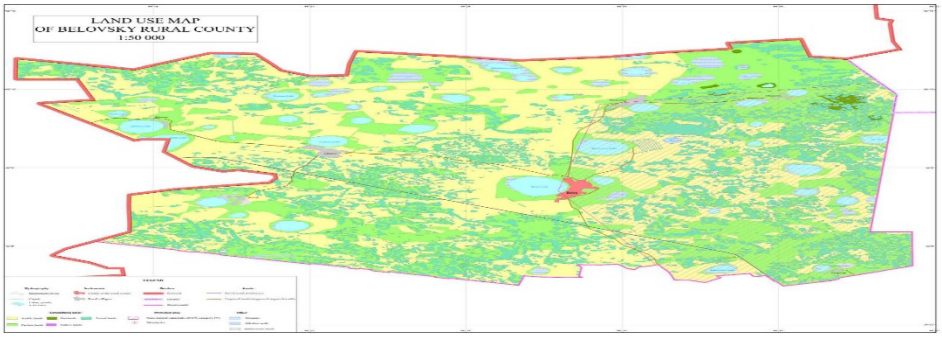


Figure 1-4. Land Use Map of Karamendy Rural County (Okrug), Pilot ILUP—Kostanai Oblast

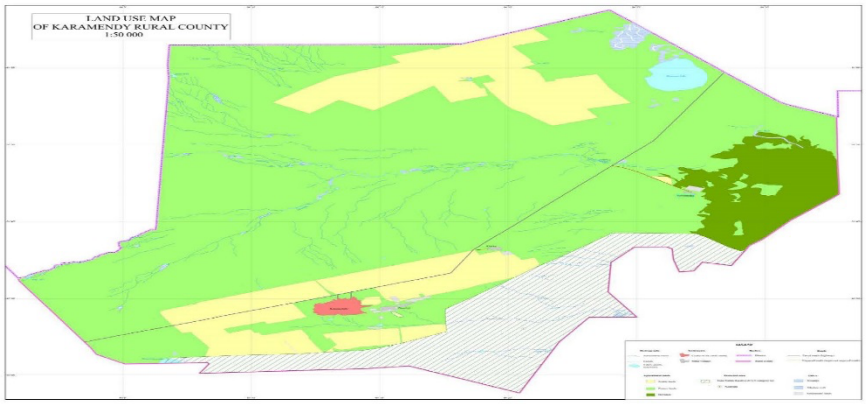
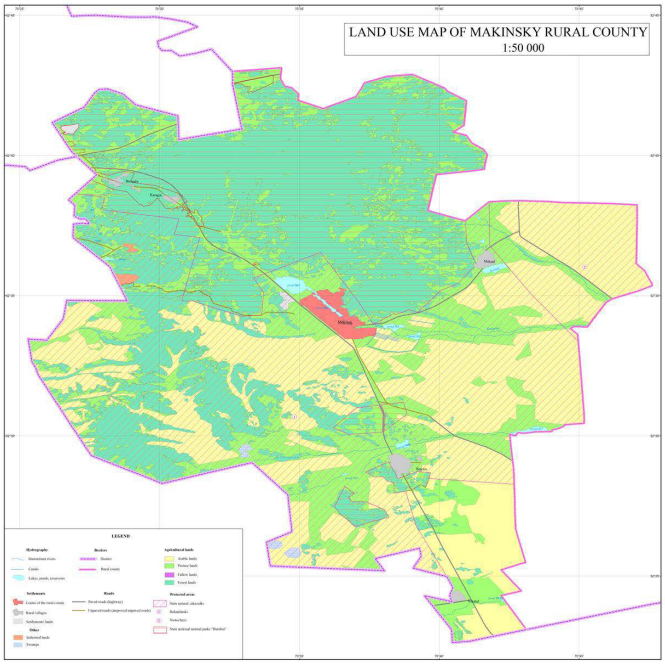


Figure 1-5. Land Use Map of Makinsky Rural County (Okrug), Pilot ILUP—Akmola Oblast



Annex 2: Multi-Year Work Plan

Outcomes	Output/Activities	Year 1				Year 2				Year 3				Year 4				Year 5			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Outcome 1: Integrated Landscape Management systems (ILM)	Output 1.1: Integrated Land Use Plans (ILUPs) employ a landscape management approach to support short-, mid- and long-term decision-making in three (3) rural okrugs of NKL																				
	Output 1.2: Regional (district and rural okrug) authorities and key groups of land users trained on implementation of principles and rules outlined in the NKL integrated land use plans																				
	Output 1.3: Inter-ministerial Task Force chaired by the Ministry of Agriculture oversees development and adoption of policies/regulations (new or amended) to enable implementation of NKL and LDN principles																				
	Output 1.4: Capacities of national meteorological observation and forecasting services (hardware and human capacities) strengthened to ensure better decision making by land users in NKL																				
Outcome 2: Promotion of sustainable food production practices and responsible value chains	Output 2.1: Appropriate agro-environmental financial incentives and instruments to support sustainable food production created and piloted in the Northern Kazakhstan Landscape																				
	Output 2.2: Diversification and improved management of																				

Outcomes	Output/Activities	Year 1				Year 2				Year 3				Year 4				Year 5			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	productive croplands for better incomes and less soil depletion (Demonstrations projects)																				
	Output 2.3: Sustainable perennial crop systems as diversification away from unsustainable production of wheat and other annual crops (Demonstration projects)																				
	Output 2.4: Sustainable pasture management (Demonstration projects)																				
	Output 2.5: Extension services capacitated at the existing and newly developed local institutions and are implementing hand-handling support for farmers at target sites on LDN techniques																				
	Output 2.6: Cooperative platform with wheat exporters and retail companies																				
Outcome 3: Conservation and restoration of natural habitats	Output 3.1: A network of high-nature value ecosystems operationalized outside agricultural landscapes on 624,200 ha																				
	Output 3.2: Degraded birch-aspen patchy forests (kolki) and related forest ecosystems in arid areas of Akmola, Kostanay, North Kazakhstan and Pavlodar oblasts restored and converted to sustainable management																				
	Output 3.3: Forest nurseries established for restocking																				

Outcomes	Output/Activities	Year 1				Year 2				Year 3				Year 4				Year 5			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	harvested areas, creating snow and windbreaks to increase crop yields and improve hydrological conditions of adjacent rainfed crop lands, pastures and rangelands of NKL																				
	Output 3.4: A forest fire prevention and control integrated system developed and embedded in the operation of forest district and emergency authorities																				
	Output 3.5: Restoration of the productivity of degraded lakes and wetlands in northern Kazakhstan																				
Outcome 4: Knowledge management, M&E and coordination with Global FOLU IP platform	Output 4.1: National experience exchange network for sustainable food production established and is integrated with the Global IP Platform and other participating countries																				
	Output 4.2: Long-term vocational and academic training curricula and programs in agricultural colleges and university incorporate modules on LDN principles & ecosystems conservation approaches																				
	Output 4.3: At least 25 events including workshops, media events, awareness raising or advocacy activities (in cooperation and coordination with the Global IP Platform)																				

Annex 3: UNDP Social and Environmental Screening Procedure (SESP)

Project Information

Project Information	
1. Project Title	Promotion of sustainable food systems and improved ecosystems services in Northern Kazakhstan Landscape
2. Project Number	PIMS 6396
3. Location (Global/Region/Country)	Kazakhstan

Part A. Integrating Overarching Principles to Strengthen Social and Environmental Sustainability

QUESTION 1: How Does the Project Integrate the Overarching Principles in order to Strengthen Social and Environmental Sustainability?
Briefly describe in the space below how the Project mainstreams the human-rights based approach
This GEF-funded project has the Northern Kazakhstan Landscape in the focus and it has been developed in full compliance with a human-rights based approach to development. In particular, the project upholds the following principles: - Accountability and the rule of law: the project will follow all standard UNDP policies on monitoring, evaluation, audits, and transparency in project implementation. The legal context of the project is defined by the CPAP signed by the Government and UNDP, which is incorporated by reference and constitutes a Project Document as referred to in the SBAA, and all CPAP provisions apply to this document. - Participation and inclusion: 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 respective section of the Project Document and in the comprehensive Stakeholder Engagement Plan for the project. - Equality and non-discrimination: In designing and carrying out project activities, the project does not discriminate on the grounds of race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other. UNDP has ensured the meaningful, effective and informed participation of stakeholders in the project formulation, and will continue to do so in implementation, monitoring and evaluation.
Briefly describe in the space below how the Project is likely to improve gender equality and women's empowerment
The project will be fully compliant with gender mainstreaming requirements of both the GEF and UNDP. During the project development phase, a detailed gender analysis has been conducted. Stemming from the gender analysis specific to the proposed areas of interventions, it has been identified that the project scores as GEN2 per the ATLAS Gender Marker, meaning that the project has gender equality as a significant objective. The most critical findings that are relevant to the project design and will implement the project Gender Strategy and Action Plan are: 1) The female population makes up half of the total population of the pilot regions, where agriculture is the key production sector, including crop and livestock farming; 2) Women continue to occupy lower positions than men on the labor market of Kazakhstan; the levels of their professional qualifications and wages are lower; professional and industry segregation is high; 3) Women, often socially vulnerable, are more likely to be a part of informal employment and experience an inherent lack of decent involvement in the social protection

system and the pension scheme in particular; 4) Women's limited access to financial resources for entrepreneurship, especially in rural areas, forces them to start small businesses, mainly in the informal sector of the economy, which brings low income.

All project activities will be gender-sensitive and the principles of gender equality will be mainstreamed into the project intervention strategy. The key partner in this cross-cutting domain will be the Agrarian Union of Women of Kazakhstan, which will be involved in planning and implementing extension activities both in Output 2.5 and Outputs 4.1 - 4.3, as well as in monitoring and evaluating the interim and final outcomes of the Project. In the first year of the Project, a gender-sensitive assessment of national conditions and stakeholder needs will be carried out. The project, including demonstration/pilot projects, will enhance the capacity of female farmers and their associations in sustainable farming and leadership development. The project will create conditions for women to participate in decision-making processes on integrated land use planning at target rural okrugs.

The following activities are recommended to mainstream gender into the project:

1) Regularly collect all the relevant data on project participants, beneficiaries, etc. with breakdown by sex;
2) Ensure that project activities, including training and local decision-making mechanisms, have appropriate and adequate gender representation. Specifically, to suggest using 30/70 quota if other modalities are not functional;
3) Make sure that women and men are equally involved during consultations with local communities in project target regions;
4) Strengthen the focus on the management of protected areas, as well as on reducing risks of exposure of women (and children) to agricultural inputs potentially harmful to human health;
5) Engage men and women equally in decision-making regarding the project activities, including through involvement of women's organizations and associations, female experts, and inviting women to project consultative and decision-making bodies, along with coordinating and networking mechanisms and platforms; and
6) Facilitate creation of income opportunities, including through employment, for male and female agriculture professionals.

Briefly describe in the space below how the Project mainstreams environmental sustainability

The project's interventions, backed by Government commitments and regulations, will avoid the loss of ecosystem values, and organic soil carbon on an area of over 1.2 mln ha. This will be done through on-the ground interventions under Component II, and partnerships with local and international partners seeking to support sustainable supply chains in Northern Kazakhstan Landscape. Agricultural land restoration technologies will be tested for the benefit of environmental sustainability, management of high conservation value forests, and wetlands and lakes will be strengthened (Outcome 3). These interventions will be backed by improved agro-environmental subsidies designed to promote environmentally sustainable agriculture (Output 2.1), and aiming to ensure non-deterioration of the carrying capacity of soil and ecosystems on over 22 mln ha in the long run. The project will also contribute to generation of knowledge on green crop production (under Outcome 2).

Part B. Identifying and Managing Social and Environmental Risks

QUESTION 2: What are the Potential Social and Environmental Risks? *Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any "Yes" responses). If no risks have been identified in Attachment 1 then note "No Risks Identified" and skip to Question 4 and Select "Low Risk". Questions 5 and 6 not required for Low Risk Projects.*	**QUESTION 3: What is the level of significance of the potential social and environmental risks?** *Note: Respond to Questions 4 and 5 below before proceeding to Question 6*			**QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?**
Risk Description	***Impact and Probability (1-5)***	***Significance (Low, Moderate, High)***	***Comments***	***Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.***
Risk 1: Vulnerable or marginalized groups, including customary people, might not be involved in project design and therefore not engaged in, supportive of, or benefitting from project activities. (Principle 1: q4)	I = 3 P =2	**Moderate**	Project Outcome 2 envisages activities targeting primarily small farm holders, presupposing a switch to more sustainable agricultural patterns. New agricultural practices could affect traditional scenarios and benefits associated with the use of resources by local communities, including the rural poor and women. Establishment of new protected areas could impinge on the livelihoods of nearby communities.	This risk has been fully addressed during project design. The interests, roles, and engagement mechanisms of NKL landscape level stakeholders are reflected in the Comprehensive Stakeholder Engagement Plan, Gender Analysis and Action Plan. The project will support farmer cooperatives as a mechanism for more influential participation of individual land-owners, providing a better reflection of individual concerns and opinions in the design, appraisal, implementation and monitoring of on-the-ground project activities. The community outreach tools have been proposed and will be tested through the implementation of the project Comprehensive Stakeholder Plan.
Risk 2: Local governments (sub-national level) and community associations may not have the capacity to fulfill all aspects of their mandate as the duty-bearers towards marginalized rural community groups. Vulnerable or marginalized groups might have limited involvement in project design	I = 4 P = 3	**Moderate**	Low capacities of small holders to achieve good harvests on land they own, while preserving soil qualities and ecosystem characteristics, is one of the key systemic	Under Outcome 2, the project will invest substantially in training farmers through the upgraded extension system on sustainable land management and crop production, using best national and international expertise that has proved successful, combined with on-farm support and consultations. A national experience exchange platform under Outcome 4 will also contribute to enhanced

and little engagement in and support of project activities. (Principle 1: q5)			challenges targeted by the project. There is also limited coordination among various stakeholders to address cross-sectoral issues. This will be addressed through Component I.	knowledge and skills of farmers about effective and sustainable approaches to crop production in the NKL region. The project will support ongoing work of the Inter-Ministerial Task Force that will address cross-sectoral issues related to sustainable land use, agricultural production and conservation of natural ecosystems in the NKL. Integrated land use planning exercises in the three selected rural okrugs will follow a comprehensive stakeholder engagement process as reflected in the Stakeholder Engagement Plan.
Risk 3: Increased enforcement of landscape protections and new approaches to land management could change current access to resources, potentially leading to economic displacement and/or changes to property rights. (Principle 1: q3; Standard 1: 1.3; Standard 5: 5.2, 5.4)	I = 3 P = 1	**Low**	Enforcement issues are relevant primarily to the use of ecosystem resources (forests, lakes, wetlands) as targeted by Component III. Management of these resources, however, is centralized (i.e. managed by forestry entities, local governments or PAs, not communities), therefore the risk of economic displacement and changes to property rights is unlikely. Creation of a regional PA and ecological corridor under Outcome III, however, can potentially bring short-term negative impacts on livelihoods but overall positive benefits in the long run. Under Component II no change of land use patterns is envisaged.	The new PA under Outcome 3 will be fully established and gazetted through a comprehensive community-based stakeholder consultation process. Creation of the ecological corridor will not require withdrawal of lands of current land holders (e.g. farmers, hunting concessions). Interests, roles, engagement mechanisms of NKL landscape level stakeholders are reflected in the Stakeholder Engagement Plan, Gender Analysis and Action Plan.
Risk 4: Field- and policy-level activities related to the value chains of key commodities could inadvertently support child labour and other violations of international labour standards. (Principle 1: q1; Standard 3: 3.8)	I = 3 P = 1	**Low**	The risk is considered low as there might be child involvement in family farm work. Substantial child labor is not expected as the crops targeted by the project require mostly mechanized treatment.	To minimize this risk further, the project will conclude MoUs with proponents of demonstration projects under Outcome2 that will include compliance with UNDP's social and environmental principles. Specifically, a strict standard for the exclusion of child labor and other labor violations. These standards will be further fully explained and disseminated to stakeholders as part of the project inception phase.
Risk 5: Existing conflicts related to land use and/or ownership could be	I = 4 P = 3	**Moderate**	While there are no conflicts as such among land-users, rather	This risk is managed through the design of the project's outputs and budget. On integrated land use planning

exacerbated or reignited by project activities. (Principle 1: q8)			there may be a difference of perception on how best to manage land. The presence of this "difference of perception" often ungrounded from both economic and environmental sides, is one of the key systemic solutions targeted by the project.	(Outcome 1), a participatory approach will be used by the project to engage all relevant stakeholders at the rural district level and hear their voices and concerns so that resulting land use plans will present a balanced view of all stakeholders with due consideration of ecosystem services and biodiversity conservation issues. Upon operationalizing a network of high-nature ecosystems (Outcome 3), including creation of a regional PA and eco-corridor, the project team will plan a participatory consultative process and public hearings at the design and pre-approval stages.
Risk 6: Project activities and approaches might not fully incorporate or reflect views of women and girls, and ensure equitable opportunities for their involvement and benefit. (Principle 2, q4)	I = 3 P = 3	**Moderate**	Kazakhstan has a strong focus on promotion of women. For land-based activities, it is important to note that women constitute a substantial part of small-holders; therefore, integrated land use planning (Outcome I), optimized use of croplands, pastures and rangelands (Outcome II) and landscape level biodiversity conservation (Outcome 3) would not be effective without engagement of women.	This risk is assessed fully in the gender analysis completed during the PPG and managed through the Gender Action Plan. The Agrarian Union of Women of Kazakhstan will act as the project's strategic partner in implementation of gender related aspects of the project as stated in the Gender Action Plan. As a region-base of collaboration, the following strategic partners (NGOs, public funds, centers) in the NKL region already working on gender issues will be engaged by the project for meaningful dialogues: Public Fund " Luch" (Light), Civil Alliance (Kostanay region), Public Fund " Women Support Center" (North-Kazakhstan region); Public Fund "Women for the nation's future", Consulting company "Decenta" (Pavlodar region); NGO Support Center for Citizens (Akmola region). Under Outcome 1 on integrated land use planning, the project will make sure that the Inter-sectoral Task Force that will oversee agriculture and land use policies (Output 1.3) is gender-balanced by reflecting this requirement in the ToR; participatory land use planning at three pilot rural okrugs will assess the needs and use of land by various stakeholder groups including gender specific needs and uses. Under Outcome 2 on promotion of sustainable food production practices and responsible value chains, the project will secure the engagement of female-led farms for its demonstration activities, capacity building events and as members of the Green Wheat Platform.

				Under Outcome 3 on conservation and restoration of natural habitat, the project will ensure the engagement of gender-balanced research/training teams, participation of women in demonstration activities on restoration of natural habitats in the NKL, meaningful representation of women during the design of the eco corridor as well as in bodies/institutions that will be oversee its management. Gender-specific practices will be adequately integrated into vocational and academic trainings and curricula on sustainable food production and ecosystem management. Collection of sex-disaggregated data throughout the project process will be safeguarded by the PM and Task Leaders as well as the use of gender analyses to inform amendments/changes to agriculture/land use/ecosystem related policies and strategic documents. Finally, the project will ensure that at least 1/3 of total participants of capacity building, KM, awareness raising, and outreach activities and events are women (girls).
Risk 7: Poorly designed or executed project activities could produce potential negative effects on valuable biodiversity and ecosystems. (Principle 1: q5; Standard 1: 1.1, 1.2, 1.3; Standard 7: 7.5)	I = 4 P = 2	**Moderate**	The project aims to introduce integrated land use planning and management on 230,000 ha; change agricultural patterns on 485,522 ha of croplands, livestock management patterns on 152,117 ha of pasture and grassland areas; and restore 5,000 ha of degraded birch-aspen woodland areas and 4,600 ha of wetland and lakes ecosystems. The above listed wide-scale project interventions could potentially affect natural ecosystems and wild species inhabiting neighboring or demonstration areas, especially given that the landscape is mosaic.	The project will manage potential negative effects on biodiversity and ecosystems. To mitigate such effects, at every demonstration site, the project will start with an initial assessment of conservation risks and conservation values. The assessment will be aimed at revealing species and ecosystems of special conservation concern, areas of special importance for biodiversity (KBAs and local designations/nominations), hotspots, areas with high richness of species of concern, etc., and critically important ecosystem services and ecological processes at the pilot sites. Any project activity will be planned and implemented in a manner that excludes any damage to the identified populations and ecosystems and minimizes any risk to the critically important ecosystem services and ecological processes. Specifically, the habitats and ecosystems of special conservation concern will not be subjected to any actions that involve tillage, clear-cutting, irrigation, and other measures leading to habitat transformation. Herbicide treatment, use of fertilizers (including sludge) aside from arable land, significant changes in grazing pressure and grazing management, development of eco-tourism and hunting, and other non-fatal impacts on ecosystems will be accompanied by mitigating and compensating measures; the measures will be elaborated as a part of the demonstration project activities, explicitly

				planned, and fully implemented. Final assessment of every demonstration project will include a final assessment of conservation values to make sure the previously identified biodiversity is still secure and viable and has not been damaged by the project activities. The conservation status/well-being and indisturbance of valuable natural ecosystems and the viability of the populations of keystone species will be objects of the above-mentioned assessments of conservation risks and conservation values. The project will pay special attention to saving and restoring high nature value grassland ecosystems at the demonstration sites. Indisturbance and safety of steppe grassland and shrubland ecosystems (assessed through state of vegetation, absence of signs of disturbances, and conservation status) and population viability of a few steppe animal species (assessed through dynamics of population number/abundance and reproduction success for he selected species) will serve as indicators of the success of every demonstration project. Support high nature value forest maintenance and management will be rendered under project Outcome 3. The state of patchy forest ecosystems and wetlands will serve both as the indicator of the project demonstration activities, and will provide the background for assessments of conservation values and conservation risks, and relevant adaptive management measures for Output 3.2.
Risk 8: Project activities and outcomes will be vulnerable to potential impacts of climate change. (Standard 2: 2.2)	I = 3 P = 4	**Moderate**	Vulnerability of the current crop production systems to climate risks is one of the challenges that the project is aiming to address.	Attention to the current and potential impacts of climate change will be built into all aspects of the project. This will be carefully factored in through the integrated landscape planning and management (Component I) and on-the-ground demonstration activities (Component II). As such, the project will upgrade agromet hardware and equipment of the KazHydroMet network in the key crop producing regions of NKL to ensure that climate risks are duly reflected, and potential future climate impacts are taken into consideration in integrated land use planning and decision-making in target rural okrugs. The project will also identify potential gaps in the existing system of PAs in the Kokshetau Uplands in order to effectively conserve biodiversity, while considering the potential for ecosystem

				change and ecological shifts due to climate change impacts. The potential climate impact on high conservation value forests in the NKL region will also be assessed and duly reflected in management plans of relevant institutions. The project's work to establish sustainable crop and livestock systems will also be grounded in the best available and most recent climate science relevant for this region of the country. Demonstration projects under Outcome II are designed in view of potential climate risks for rainfed agriculture including the use of various soil moisture saving/increasing technologies, green manure, crop rotation, etc.
Risk 9: Workers in commodity supply chains (including smallholder producers) might be exposed to hazards common to those sectors, including exposure to chemicals (pesticides, fertilizers) that might be subject to international bans. (Standard 3: 3.7)	I = 2 P = 3	**Moderate**	Many farms in the NKL region use pesticides and mineral fertilizers for crop production thus posing a risk of exposure to chemical. Other than that, the project promotes biological methods of weed control (i.e. moving away from herbicides), the use of alternative energy sources at distant rangelands, and production and use of organic fertilizers.	Under Outcome 2, the project focuses on minimizing the use of pesticides and chemical fertilizers at demonstration sites and switching to organic fertilizers, green manure, crop rotation, biological weed and pest control measures, etc. on farm fields as agreed to during the design of demonstration projects. At the start of the project, the project team will reconfirm proposed environmentally safe demonstration activities, and will ensure through regular monitoring visits, that farmers comply with the requirements. Several farms growing crops organically will participate in the project and their experience will be promoted through farmer exchange visits in the NKL region. Also, as part of the project's work on improving the regional extension system, training programs will be designed and delivered regarding international standards relevant to use of chemicals in crop production and environmentally safe crop protection measures.
Risk 10: The release of non-hazardous and potentially hazardous pollutants; the generation of both types of waste; and the significant consumption of water could result from project support in target districts. (Standard 1, q.1.8, Standard 7: 7.1, 7.2, 7.5)	I = 2 P = 3	**Moderate**	Conventional crop production in Kazakhstan uses mineral fertilizers, pesticides and herbicides for weeds and pest control constituting the major source of hazardous pollutant release in NKL. Additional release of pollutants in crop production might be connected to machinery fumes during seasonal field work and processing of crop residues for fiber production.	The risk of continued use of hazardous land and plant treatment agents (pesticides, herbicides) will be mitigated through piloting safe biological methods of weed control at two demonstration sites in Akmola region under Output 2.4. Results (economic and environmental) of environmentally sustainable weed control techniques will be analyzed, compared with reference plots where herbicides/pesticides are used as common practice by farmers assessing both efficiency in controlling unwanted plants and generated benefits for the farmland. Based on the findings, recommendations will be developed, shared with farmers at Field Days, exchange visits, workshops & meetings as well as with local and regional authorities and members of the Inter-ministerial Task Force for promoting and supporting safe control methods. At demonstration

				sites where farmers use pesticides and herbicides as a common practice for weeds control, the project will ensure that farmers follow prescriptions of agronomic technical cards (maps) on timing, dosage, methods for inputting chemicals. Under Outcome 3.5, the project will demonstrate techniques for the removal of sludge and debris deposits in degraded lakes and their use for production of organic fertilizer (sapropel) as a substitute for chemical fertilizers.

	QUESTION 4: What is the overall Project risk categorization?		
	Select one (see SESP for guidance)		**Comments**
	Low Risk	☐	
	Moderate Risk	X	
	High Risk	☐	
	QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are relevant?		
	Check all that apply		**Comments**
	Principle 1: Human Rights	X	
	Principle 2: Gender Equality and Women's Empowerment	X	
	1. Biodiversity Conservation and Natural Resource Management	X	
	2. Climate Change Mitigation and Adaptation	X	
	3. Community Health, Safety and Working Conditions	X	
	4. Cultural Heritage	NA	
	5. Displacement and Resettlement	X	
	6. Indigenous Peoples	NA	There are no indigenous peoples or minority groups in the targeted landscape.
	7. Pollution Prevention and Resource Efficiency	X	

Final Sign Off

Signature	*Date*	*Description*
QA Assessor		UNDP staff member responsible for the Project, typically a UNDP Programme Officer. Final signature confirms they have "checked" to ensure that the SESP is adequately conducted.
QA Approver		UNDP senior manager, typically the UNDP Deputy Country Director (DCD), Country Director (CD), Deputy Resident Representative (DRR), or Resident Representative (RR). The QA Approver cannot also be the QA Assessor. Final signature confirms they have "cleared" the SESP prior to submittal to the PAC.
PAC Chair		UNDP chair of the PAC. In some cases, PAC Chair may also be the QA Approver. Final signature confirms that the SESP was considered as part of the project appraisal and considered in recommendations of the PAC.

SESP Attachment 1. Social and Environmental Risk Screening Checklist

Checklist Potential Social and Environmental Risks		
Principles 1: Human Rights		**Answer (Yes/No)**
1.	Could the Project lead to adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	No
2.	Is there a likelihood that the Project would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups? [12]	No
3.	Could the Project potentially restrict availability, quality of and access to resources or basic services, in particular to marginalized individuals or groups?	No
4.	Is there a likelihood that the Project would exclude any potentially affected stakeholders, in particular marginalized groups, from fully participating in decisions that may affect them?	YES
5.	Is there a risk that duty-bearers do not have the capacity to meet their obligations in the Project?	YES
6.	Is there a risk that rights-holders do not have the capacity to claim their rights?	No
7.	Have local communities or individuals, given the opportunity, raised human rights concerns regarding the Project during the stakeholder engagement process?	No
8.	Is there a risk that the Project would exacerbate conflicts among and/or the risk of violence to project-affected communities and individuals?	No
Principle 2: Gender Equality and Women's Empowerment		
1.	Is there a likelihood that the proposed Project would have adverse impacts on gender equality and/or the situation of women and girls?	No
2.	Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	No
3.	Have women's groups/leaders raised gender equality concerns regarding the Project during the stakeholder engagement process and has this been included in the overall Project proposal and in the risk assessment?	No
4.	Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? *For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well being*	YES
Principle 3: Environmental Sustainability: Screening questions regarding environmental risks are encompassed by the specific Standard-related questions below		
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management		
1.1	Would the Project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services?	YES

[12] Prohibited grounds of discrimination include race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to "women and men" or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender people and transsexuals.

	For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes	
1.2	Are any Project activities proposed within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	YES
1.3	Does the Project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)	YES
1.4	Would Project activities pose risks to endangered species?	No
1.5	Would the Project pose a risk of introducing invasive alien species?	No
1.6	Does the Project involve harvesting of natural forests, plantation development, or reforestation?	No
1.7	Does the Project involve the production and/or harvesting of fish populations or other aquatic species?	No
1.8	Does the Project involve significant extraction, diversion or containment of surface or ground water? *For example, construction of dams, reservoirs, river basin developments, groundwater extraction*	No
1.9	Does the Project involve utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)	No
1.10	Would the Project generate potential adverse transboundary or global environmental concerns?	No
1.11	Would the Project result in secondary or consequential development activities which could lead to adverse social and environmental effects, or would it generate cumulative impacts with other known existing or planned activities in the area? *For example, a new road through forested lands will generate direct environmental and social impacts (e.g. felling of trees, earthworks, potential relocation of inhabitants). The new road may also facilitate encroachment on lands by illegal settlers or generate unplanned commercial development along the route, potentially in sensitive areas. These are indirect, secondary, or induced impacts that need to be considered. Also, if similar developments in the same forested area are planned, then cumulative impacts of multiple activities (even if not part of the same Project) need to be considered.*	No
Standard 2: Climate Change Mitigation and Adaptation		
2.1	Will the proposed Project result in significant[13] greenhouse gas emissions or may exacerbate climate change?	No
2.2	Would the potential outcomes of the Project be sensitive or vulnerable to potential impacts of climate change?	YES
2.3	Is the proposed Project likely to directly or indirectly increase social and environmental vulnerability to climate change now or in the future (also known as maladaptive practices)? *For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding*	No
Standard 3: Community Health, Safety and Working Conditions		
3.1	Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?	No
3.2	Would the Project pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	No

[13] In regards to CO_2, 'significant emissions' corresponds generally to more than 25,000 tons per year (from both direct and indirect sources). [The Guidance Note on Climate Change Mitigation and Adaptation provides additional information on GHG emissions.]

3.3	Does the Project involve large-scale infrastructure development (e.g. dams, roads, buildings)?	No
3.4	Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)	No
3.5	Would the proposed Project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?	No
3.6	Would the Project result in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)?	No
3.7	Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?	YES
3.8	Does the Project involve support for employment or livelihoods that may fail to comply with national and international labor standards (i.e. principles and standards of ILO fundamental conventions)?	No
3.9	Does the Project engage security personnel that may pose a potential risk to health and safety of communities and/or individuals (e.g. due to a lack of adequate training or accountability)?	No
Standard 4: Cultural Heritage		
4.1	Will the proposed Project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: Projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No
4.2	Does the Project propose utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes?	No
Standard 5: Displacement and Resettlement		
5.1	Would the Project potentially involve temporary or permanent and full or partial physical displacement?	No
5.2	Would the Project possibly result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	YES
5.3	Is there a risk that the Project would lead to forced evictions?[14]	No
5.4	Would the proposed Project possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	Yes
Standard 6: Indigenous Peoples		
6.1	Are indigenous peoples present in the Project area (including Project area of influence)?	No
6.2	Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples?	NO
6.3	Would the proposed Project potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the Project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)?	No

[14] Forced evictions include acts and/or omissions involving the coerced or involuntary displacement of individuals, groups, or communities from homes and/or lands and common property resources that were occupied or depended upon, thus eliminating the ability of an individual, group, or community to reside or work in a particular dwelling, residence, or location without the provision of, and access to, appropriate forms of legal or other protections.

	If the answer to the screening question 6.3 is "yes" the potential risk impacts are considered potentially severe and/or critical and the Project would be categorized as either Moderate or High Risk.	
6.4	Has there been an absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	NA
6.5	Does the proposed Project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	NA
6.6	Is there a potential for forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?	NA
6.7	Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	NA
6.8	Would the Project potentially affect the physical and cultural survival of indigenous peoples?	NA
6.9	Would the Project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	NA
Standard 7: Pollution Prevention and Resource Efficiency		
7.1	Would the Project potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	YES
7.2	Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?	YES
7.3	Will the proposed Project potentially involve the manufacture, trade, release, and/or use of hazardous chemicals and/or materials? Does the Project propose use of chemicals or materials subject to international bans or phase-outs? *For example, DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Conventions on Persistent Organic Pollutants or the Montreal Protocol*	No
7.4	Will the proposed Project involve the application of pesticides that may have a negative effect on the environment or human health?	No
7.5	Does the Project include activities that require significant consumption of raw materials, energy, and/or water?	YES

Annex 4: UNDP Risk Register

#	Description	Risk Category	Impact & Probability	Risk Treatment / Management Measures	Risk Owner
	Enter a brief description of the risk. Risk description should include future event and cause. Risks identified through HACT, PCAT, SES, Private Sector Due Diligence, and other assessments should be included.	Social and Environmental Financial Operational Organizational Political Regulatory Strategic Other	Describe the potential **effect** on the project if the future event were to occur. Enter **likelihood** based on 1-5 scale (1 = Not likely; 5 = Expected) Enter **impact** based on 1-5 scale (1 = Negligible 5 = Extreme) *Based on Likelihood and Impact, use the Risk Matrix to identify the Risk Level (high, Substantial, Moderate or Low)*	What actions have been taken/will be taken to manage this risk.	The person or entity with the responsibility to manage the risk.
1	Project complexity and complications in coordination of project activities between sectoral stakeholders, namely MoA, Kazagro, Forest and Wildlife Committee of the Ministry of Natural Resources, and Kazhhydromet could reduce the efficiency and effectiveness of project implementation. Project complexity and its intersectoral nature in the context of the business-as-usual sectoral approaches to land management and planning may lead to disproportional adaptive management between the project components.	Strategic	Project effectiveness and efficiency can be negatively effected L = 2 I = 3 Moderate	Project inception phase will make sure that the intersectoral nature of the project and its key elements adherent to the FOLUR IP are reiterated in communication with the targeted stakeholder groups, and the intersectoral nature of the project is mainstreamed in key products of the project inception phase. Regular meetings will be held between project staff, Implementing Partner, Project Board members. Relevant government institutions and other stakeholders to promote coordination and effective implementation of project interventions. Improved and coordinated governance should be mainstreamed through project implementation.	Project Manager and Project Team, Project Implementing Partner and Project Board
2	Volatility and business risks of the agricultural sector may factor the private sector participation and negatively affect the co-financing from private sector partners. Exogenous factors, such as a	Financial	Private sector stakeholder engagement may be hampered by external factors L = 2 I = 3	Early engagement tools will be in place for the major private sector partners. Benefits from their partnership with the project will be outlined, and project commitments towards the private sector partners will be fulfilled as early as possible. Technical assistance to farmers provided by a revamped extension system will emphasize the long-term positive impact on yields and farm	

#	Description	Risk Category	Impact & Probability	Risk Treatment / Management Measures	Risk Owner
	significant drop in international wheat prices, may disincentivise SME farms from participating in agroincentive support programme		Moderate	revenues produced by the adoption of climate adaptive technologies. While short-term market dynamics are unavoidable, enhanced climate resilience makes farm businesses more financially sustainable over the long term.	
3	Adoption of an integrated and inclusive approach to land use management and planning is a massive step from the existing sectoral management planning baseline, and thus may be too ambitious a goal for a 5-year donor-funded project.	Strategic	Project impact and goals for the landscape-level transformations may turn over-ambitious L = 2 I = 3 Moderate	ILUPs will be developed in integration with the BAU land use planning processes at the regional (rural okrug) level and endorsed by the districts akimats. This strategy should ensure high probability of the project impact to show and stay.	Project team, project regional stakeholders
4	Project inception phase may be extended beyond the required 6 months, pursuant to the change of the BAU management arrangement from UNDP Support to NIM	Operational	Project completion within 5 years is questionable, even with the possibility of a maximum 1-year conditional extension. L = 4 I = 3 Moderate	The PPG phase resulted in identification of a Responsible Party for the operational support to project implementation (NASEC). While the HACT assessment points to a Low Risk for the RP involvement, the PCAT has indicated a number of capacity limitations that may impact the project operationalization within the required inception period. The UNDP CO, the RP and the IP will use the time lag between the PPG completion and the FSP launch to identify possibly scenarios to deal with the capacity limitations, and agree the optimal scenario with the GEF.	UNDP CO IP GEF OFP Office NASEC
5	Project implementation delays related to the COVID-19 pandemic	Operational	Project completion within 5 years is questionable, even with the possibility of a maximum 1-year conditional extension. L = 4 I = 3 Moderate	The project will rely on the corporate UNDP-GEF guidance regarding the timeframe of the key project milestones that may be affected by continuing COVID-19 restrictions. The project team and key partners will be equipped and capacitated for virtual consultations, and the work planning within the Project Team will be adaptive and sensitive to the restrictions caused by the COVID-19 pandemic.	UNDP CO Project Team
6	Project activities and outcomes will be vulnerable to potential impacts of climate change.	Environmental	Sustainability of project results could be reduced. L = 4 I = 3 Moderate	Vulnerability of the current crop production systems to climate risks is one of the challenges that the project is aiming to address. Attention to the current and potential impacts of climate change will be built in to all aspects of the project. This will be carefully factored in through the integrated landscape planning and management (Component I) and on-the-ground demonstration activities (Component II). As such, the project will upgrade agromet hardware and equipment of the KazHydroMet network in the key crop producing regions of NKL to ensure that climate risks are duly reflected, and potential future climate impacts are taken into consideration in integrated land use planning and decision-making in target rural okrugs. The project will also identify potential gaps	Project Team

#	Description	Risk Category	Impact & Probability	Risk Treatment / Management Measures	Risk Owner
				in the existing system of PAs in the Kokshetau Uplands in order to effectively conserve biodiversity, while considering the potential for ecosystem change and ecological shifts due to climate change impacts. The potential climate impact on high conservation value forests in the NKL region will also be assessed and duly reflected in management plans of relevant institutions. The project's work to establish sustainable crop and livestock systems will also be grounded in the best available and most recent climate science relevant for this region of the country. Demonstration projects under Outcome II are designed in view of potential climate risks for rainfed agriculture including the use of various soil moisture saving/increasing technologies, green manure, crop rotation, etc.	

Note: the current register presents the table of risks to the project, while the SESP risks presented in the Annex 3. The online UNDP Risk Log will contain all risks (i.e. risks to the project as well as SESP risks).

Annex 5: Monitoring Plan

This Monitoring Plan and the M&E Plan and Budget in Section VI of this project document will both guide monitoring and evaluation at the project level for the duration of project implementation.

Monitoring	Indicators	Targets	Comments of indicators and targets	Data source/Collection Methods[15]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
Project objective from the results framework	1. FOLUR Component 1 Outcome Indicator 1: Number of landscapes or jurisdictions with improved planning & management practices to foster sustainable food systems	1		Project records; Project terminal evaluation.	Annually Reported in DO tab of the GEF PIR	Project team; Global FOLUR IP Team.	Project reports and documentation; Successful completion of project activities for relevant project components, as verified by the MTR and TE.	- Project risk management strategy is instrumental in management of moderate/high risks that derail implementation - Project initiatives supported by sectoral stakeholders project initiatives
	2. GEF-7 core indicator 5 / FOLUR Component 3 Outcome Indicator 2: Total area under improved management / Area of landscapes with clarified boundaries and allowable land uses in protected and production systems	22,000,000 ha	NKL landscape area	Project records; Project terminal evaluation.	Annually Reported in DO tab of the GEF PIR	Project team; Terminal evaluation consultant.	Project reports and documentation; Successful completion of project activities for relevant project components, as verified by the MTR and TE.	- Project risk management strategy is instrumental in management of moderate/high risks that derail implementation - ILUP as a mainstream land use planning modality is supported at appropriate scales
	3. # direct project beneficiaries	106,000:		Annual project team analysis of number of people directly benefiting from project activities.	Annually Reported in DO tab of the GEF PIR	Project team.	Number of staff employed in private sector companies directly engaged by the project Number of public sector employees	- No large-scale staff turnover in participating enterprises, government institutions, and targeted PAs - Rural residents with resource-dependent

[15] Data collection methods should outline specific tools used to collect data and additional information as necessary to support monitoring. The PIR cannot be used as a source of verification.

Monitoring	Indicators	Targets	Comments of indicators and targets	Data source/Collection Methods[15]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
							involved in project activities through training, integrated land use planning, and restoration activities Number of local resource users involved in sustainability livelihoods and restoration activities under the project Number of staff employed at PAs targeted by the project	livelihoods will benefit from project outcomes
	4a. Species indicators: viability and well-being of populations of the species of special conservation concern and keystone species in pilot sites. Species to be confirmed for individual pilot sites; those may include: - population number and reproduction success in nesting keystone bird species such as Eastern Imperial Eagle *(Aquila*	Stable or increase relative to baseline	See Annex 6.	Biodiversity monitoring reports from PAs and oblasts.	Mid-term; completion. Reported in DO tab of the GEF PIR	Project team.	Biannual monitoring from national partners (e.g. PAs) in appropriate pilot project sites	- Project lifetime is sufficient to allow impacts to be generated and monitored - New threats do not emerge - Population dynamics not strongly affected with negative factors acting outside of the local area (wintering areas for nesting birds, on breeding grounds for migratory waterfowl, etc.)

Monitoring	Indicators	Targets	Comments of indicators and targets	Data source/Collection Methods[15]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	heliacal) and Steppe Eagle *(Aquila nipalensis),* - number of migratory geese in the migration stopover, - population number and reproduction success in local nesting populations of waterfowl 4b. Ecosystem and biodiversity indicators: - ecosystem health indicators for valuable steppe, meadow and forest steppe habitats - ecosystem restoration indicators							
Project Outcome 1	5. Land use practices in Northern Kazakhstan Landscape (NKL) transformed to avoid ecosystem and land	Sustainable land use practices demonstrated in three municipalities (rural districts – Karamendinsky, Belovsky, Makinsky) covering	Three pilot ILUPs developed and set to implementation; demo projects developed and implemented	Project records.	Annually Reported in DO tab of the GEF PIR	Project team.	Project reports and documentation; Successful completion of project activities for relevant project components, as verified by the MTR and TE.	- Project risk management strategy is instrumental in management of moderate/high risks that derail implementation - ILUP as a mainstream land use planning

Monitoring	Indicators	Targets	Comments of indicators and targets	Data source/Collection Methods[15]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	degradation in the long run	228,323 ha within NKL						modality is supported at appropriate scales
	6. Status of integrated land use planning in Northern Kazakhstan	Integrated land-use plans at the municipal level three municipalities (rural districts – Karamendinsky, Makinsky, Belovsky) covering 228,323 within NKL elaborated, consulted, and adopted by authorities	Three pilot ILUPs developed and set to implementation	Project records.	Annually Reported in DO tab of the GEF PIR	Project team.	Project reports and documentation; Successful completion of project activities for relevant project components, as verified by the MTR and TE.	- Project risk management strategy is instrumental in management of moderate/high risks that derail implementation - Land use management authorities and planners at all levels are open to cooperation
	7. Capacities of national meteorological observation and forecasting services strengthened to ensure better decision making by land users in NKL	Capacity building activities performed for 15 agro-meteorological stations		Results of capacity needs assessment at the project start and the end-of-project capacity assessment for selected meteorological stations	At end of project. Reported in DO tab of the GEF PIR	Project team; Kazgidromet	Results of capacity needs assessment at the project start and the end-of-project capacity assessment for selected meteorological stations	Capacities at the level of land-use decision makers are sufficient to effectively use and interpret data from improved meteorological observation and forecasting services
Project Outcome 2	8. FOLUR Component 2 Outcome Indicator 2: Area on which producers apply improved agricultural practices as measured by SDG 2.4.1 (area under	- 186,697 ha to demonstrate diversification and improved management of productive croplands for better incomes and less soil depletion (Output 2.2.)	Pilots for Outputs 2.2 and 2.3	Reports from demo projects' implementation, project team field monitoring reports	Annually Reported in DO tab of the GEF PIR	Project team	GIS analysis of project partner production area, validated by terminal evaluation	- Project agriculture partners apply improved practices based on support provided through project - The project is able to engage a sufficient number of SME agriculture partners to achieve the target within the lifetime of the project

Monitoring	Indicators	Targets	Comments of indicators and targets	Data source/Collection Methods[15]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	sustainable agriculture)	- 298,826 ha on sustainable perennial crop systems as diversification from unsustainable production of wheat and other crops (Output 2.3);						
	9. FOLUR Component 2 Outcome Indicator 4: Number of companies / value chain organizations engaged in multi-stakeholder partnership: Market share of wheat market in Northern Kazakhstan ascribed to cooperative platform for "green" wheat production	Companies representing 5% of the wheat market in Northern Kazakhstan, in production volume	Minimum meaningful change from baseline that will provide for sustainability of the Platform; represents the ratio of wheat produced by the Platform participants in the total volume of wheat production in 4 pilot oblasts	Project private sector partner production survey.	Mid-term; completion. Reported in DO tab of the GEF PIR	Project team private sector expert.	Number of actors formally engaged through the cooperative platform, as reported Companies are engaged when they make their respective (=green wheat trading) reporting publicly available	- There are no critical issues involved in establishing partnership platform, so that private sector companies are willing to formally participate - The project can effectively establish communication with the necessary number of private sector partners
	10. FOLUR Component 2 Outcome Indicator 8: Public and private investments leveraged in support of sustainable	US$ 1,700,000 as private investments US$ 11,000,000 as public investments		Project records; partner co-financing reporting.	Mid-term; completion. Reported in DO tab of the GEF PIR	Project team.	For (1) letters of co-financing and annual tracking of co-financing through PIRs; For (2) regular tracking by project manager of any new commitments	- Public and private project partners contribute investment at foreseen levels - Partner contributions support the project objective of sustainable green crop value chains

Monitoring	Indicators	Targets	Comments of indicators and targets	Data source/Collection Methods[15]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	commodity value chains through PPP or adoption of sustainability standards and practices *(Project specific: Amount of public and private investment leveraged in support of sustainable production and marketing of "green" wheat originating from NKL, as measured by (1) "investment mobilized" figure of co-financing given to Component 2 (evidence – co-financing letters) + any new and additional investment leveraged outside the committed co-financing resources)*						from any relevant companies and public sources that directly support green wheat production in Northern Kazakhstan Landscape	in Northern Kazakhstan, as planned
	11. FOLUR Component 2 Outcome Indicator 1 / GEF-7 Core Indicator 3: Area of degraded land restored for sustainable use and production	- 152,117 ha (10 plots) of degraded productive grasslands (pastures and hay making plots) restored and set under sustainable pasture	Demonstration projects under Output 2.4	Reports from demo projects' implementation, project team field monitoring reports, biodiversity values' and risks assessments	Mid-term; completion. Reported in DO tab of the GEF PIR	Project team	Project reports and documentation, e.g. annual reporting in PIR; Successful completion of project activities for relevant project components, as	- Baseline level of degradation can be adequately assessed, and changes observed, monitored and documented within project lifetime - New threats do not emerge (or rate of impact

Monitoring	Indicators	Targets	Comments of indicators and targets	Data source/Collection Methods[15]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		management (Output 2.4)					verified by the MTR and TE.	of threats does not significantly change)
	12. FOLUR Component 2 Outcome Indicator 6: Number of national multi-stakeholder dialogue mechanisms / platforms effectively operated for sustainable commodity supply chains and across commodities	1 (Output 2.6; Cooperative platform with wheat exporters and retail companies	Output 2.6	Project records.	Annually Reported in DO tab of the GEF PIR	Project team.	Project reports and documentation, e.g. annual reporting in PIR; Successful completion of project activities for relevant project components, as verified by the MTR and TE.	- Potential private sustainable commodity supply chain partners remain willing and interested based on terms to be defined for sustainable commodity supply chains
Project Outcome 3	13. FOLUR Component 3 Outcome Indicator 3: Area of land where degradation is avoided in natural steppe, meadow steppe, forest-steppe and wetland habitats within PAs, through setting high value nature ecosystems under protection and targeted strengthening of capacities of PA authorities and staff (Protected Areas and other areas of special conservation	At least 600,000 hectares (project should be supporting avoiding any degradation within PAs from the beginning of the project): - - eco corridor (IUCN cat.IV) for protection of steppe, meadow-steppe and forest-steppe ecosystems at an area of ca.250,000 ha; - new Turkty Refuge (IUCN cat.VI) at 53,059 ha for higher protection of patchy pine and		Project records, Reports from demo projects' implementation, project team field monitoring reports, biodiversity values' and risks assessments	Mid-term; completion. Reported in DO tab of the GEF PIR	Project team; PA partners.	Project reports and documentation, e.g. annual reporting in PIR; Successful completion of project activities for relevant project components, as verified by the MTR and TE. Based on legally adopted land planning documents (PA statuses with official maps, etc)	- Without project interventions, degradation will continue in natural habitats within PAs - Strengthening capacities of PAs at institutional and individual levels will contribute to reduced degradation

Monitoring	Indicators	Targets	Comments of indicators and targets	Data source/Collection Methods[15]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	management where destructive activities are strongly prohibited by their regime)	birch forests, steppes dominated with *Stipa zalesskii*, steppes dominated with *Helictothrichon desertorum*, relic pine forests, stony steppes, fallow lands, meadows and bogs; - 324,173 ha of existing PAs with strengthened management capacities						
	14. FOLUR Component 2 Outcome Indicator 7: Landscape area with reduced conversion and degradation of natural forest, grassland, and wetland habitats: Area of such ecosystems outside PAs with improved management for biodiversity through the implementation of buffer zones and corridors (PA corridors and buffer zones identified in	5,000 hectares Area of reduced conversion and protected from degradation due to various drivers of degradation (over-cutting, wildfires, changing hydrological regime, etc): 1. 3,000 hectares of high nature value birch-aspen patchy forests protected from conversion into unforested areas 2. Natural succession to healthy semi-natural grasslands secured for 1,000		Project records, Reports from demo projects' implementation, project team field monitoring reports, biodiversity values' and risks assessments	Annually Reported in DO tab of the GEF PIR	Project team	Project reports and documentation, e.g. annual reporting in PIR; Successful completion of project activities for relevant project components, as verified by the MTR and TE.	- District authorities are able and willing to apply and implement integrated management plans in other district land use planning policies and procedures - Strengthening capacities of land use planning authorities and staff will contribute to the establishment and implementation of PA buffer zones and corridors

Monitoring	Indicators	Targets	Comments of indicators and targets	Data source/Collection Methods[15]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	district integrated management plans and adopted)	hectares of fallow lands; 3. Conversion into other habitats (arable, tree plantations, improved grasslands, etc.) and degradation due to any drivers (over-grazing, under-grazing, excessive and unseasonable fires, using fertilizers, etc) prevented for 1,000 hectares of valuable steppe grasslands						
	15. FOLUR Component 3 Outcome Indicator 4: Area of degraded land restored for conservation and ecosystem services (Area of degraded ecosystems restored)	- 5,000 ha of high conservation value birch-aspen patchy forests restored (pest and disease management); - 4,600 ha of wetland, lake and riparian ecosystems restored		Project records, Reports from demo projects' implementation, project team field monitoring reports, biodiversity values' and risks assessments	Mid-term; completion. Reported in DO tab of the GEF PIR	Project team; relevant PA authorites and forest management units	Project reports and documentation, e.g. annual reporting in PIR; Successful completion of project activities for relevant project components, as verified by the MTR and TE.	- Project restoration activities can be completed in project timeframe - Restoration measures are successful in restoring ecosystem services
Project Outcome 4	16. Capacity development and knowledge management products on sustainable agricultural	Long-term vocational and academic training curricula and programs incorporates modules on		Project records.	Annually Reported in DO tab of the GEF PIR	Project team.	Vocational training programs of targeted audiences by public sector institutions and academia	- Public sector and academic institutions are interested and willing to take up project produced training materials - Existing vocational training programs can be

Monitoring	Indicators	Targets	Comments of indicators and targets	Data source/Collection Methods[15]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	production (wheat) developed and introduced in training programmes	sustainable agricultural production and biodiversity conservation in productive landscapes for sustainable food production and SLM						amended before the academic year starts - There is sufficient time to identify and document good practices
	17. FOLUR Component 4 Outcome Indicator 4 / FOLUR Capacity / Training indicator: Number of knowledge dissemination events and knowledge products shared with the target stakeholder groups in Kazakhstan and beyond FOLUR countries through S-S exchanges, conferences, and global events, including community of practice	25		Project records.	Annually Reported in DO tab of the GEF PIR	Project team.	Monitoring via annual project reporting (PIR) by project team; Verification at mid-term review and terminal evaluation by independent external experts	- Existing demand for sustainable agricultural products - Existence of S-S opportunities and channels for knowledge sharing
	18. Members of FOLUR-supported Communities of Practice (total number of members; % female) (FOLUR	10		Project records.	Annually Reported in DO tab of the GEF PIR	Project team.	Monitoring via annual project reporting (PIR) by project team; Verification at mid-term review and terminal evaluation by	- Project team, partners, and stakeholders are interested, willing, and have time to participate in FOLUR-supported Communities of Practice

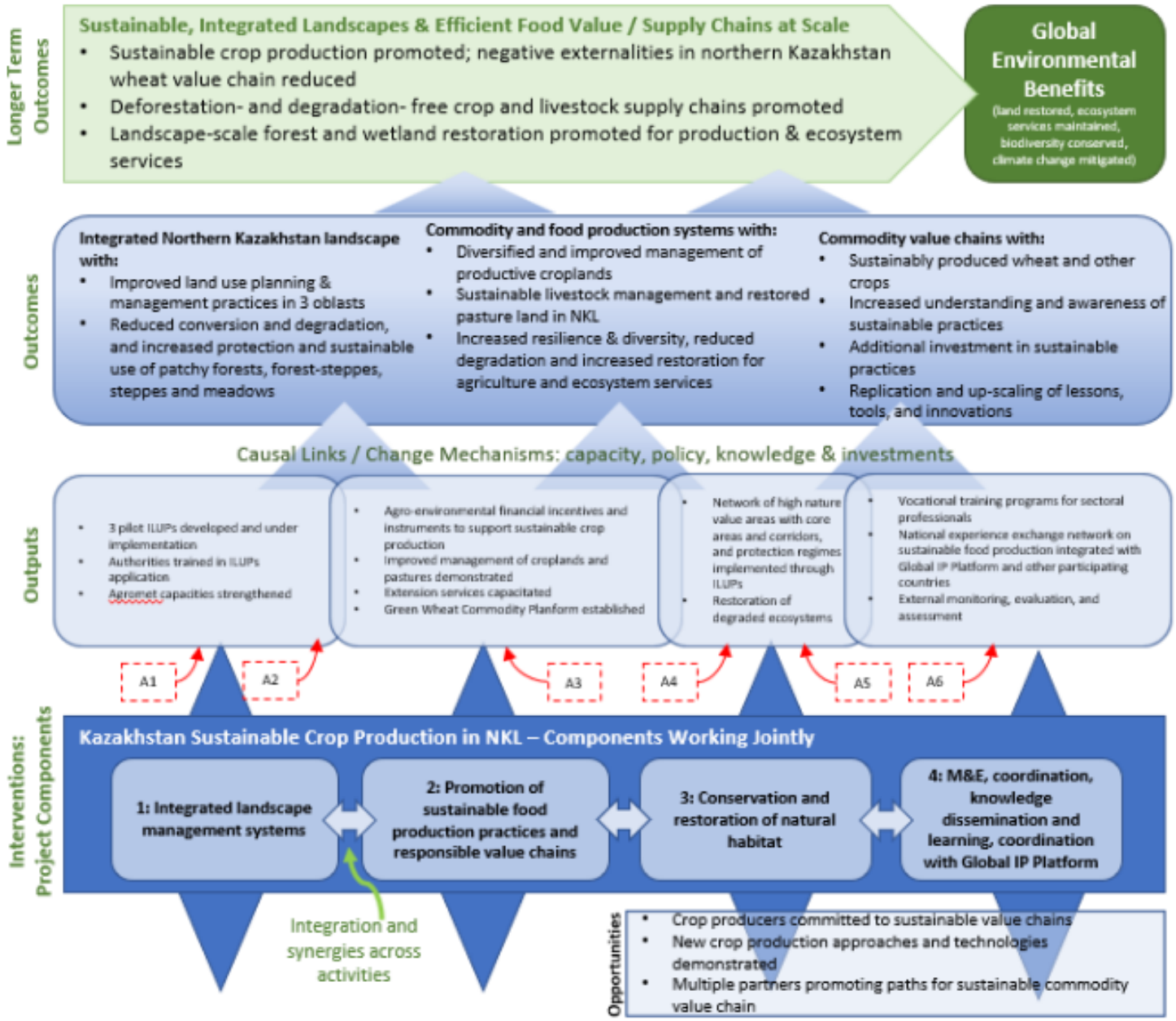
Monitoring	Indicators	Targets	Comments of indicators and targets	Data source/Collection Methods[15]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	Knowledge indicator)						independent external experts	- Project team, partners, and stakeholders find value for their personal and professional interests in participating in FOLUR-supported Communities of Practice
	19. FOLUR Capacity / Training indicator: Government counterparts and country project team members participating in global, national and regional forums and workshops (e.g. GLF, CGIAR, Good Growth Platform, multi-stakeholder dialogues, S-S exchanges, commodity value chain events, etc.) (total number of participants; % female)	50 10, 50% female	.	Project records.	Annually Reported in DO tab of the GEF PIR	Project team.	Monitoring via annual project reporting (PIR) by project team; Verification at mid-term review and terminal evaluation by independent external experts	- Existence of FOLUR-related global, national and regional forums and workshops
	20. FOLUR Policies / Value Chains indicator: Private sector actors or coalitions, commodity value chain events, documents, press releases, etc. citing/using FOLUR products (number)	1		Project records.	Annually Reported in DO tab of the GEF PIR	Project team.	Monitoring via annual project reporting (PIR) by project team; Verification at mid-term review and terminal evaluation by independent external experts	- Effective dissemination of FOLUR products

Monitoring	Indicators	Targets	Comments of indicators and targets	Data source/Collection Methods[15]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
Cross-cutting: Gender mainstreaming during implementation	21. Consistency of project gender mainstreaming approach with project plans	Gender mainstreaming carried out during project implementation, as indicated by: a. Project Board and local stakeholder working groups have gender balance and/or include a gender expert; b. Policies, laws, and regulations developed with project support include gender perspectives, as relevant c. Project events and activities (e.g. trainings) promote gender balance among invited participants, as feasible d. Project technical training activities	See Annex 6.	Project records.	Annually Reported in DO tab of the GEF PIR	Project team; safeguards / gender officer.	Monitoring via annual project reporting (PIR) by project team; Verification at mid-term review and terminal evaluation by independent external experts	- All relevant stakeholders support or are in accordance with gender mainstreaming efforts undertaken by the project - There are not structural demographic issues that will hamper project gender mainstreaming efforts

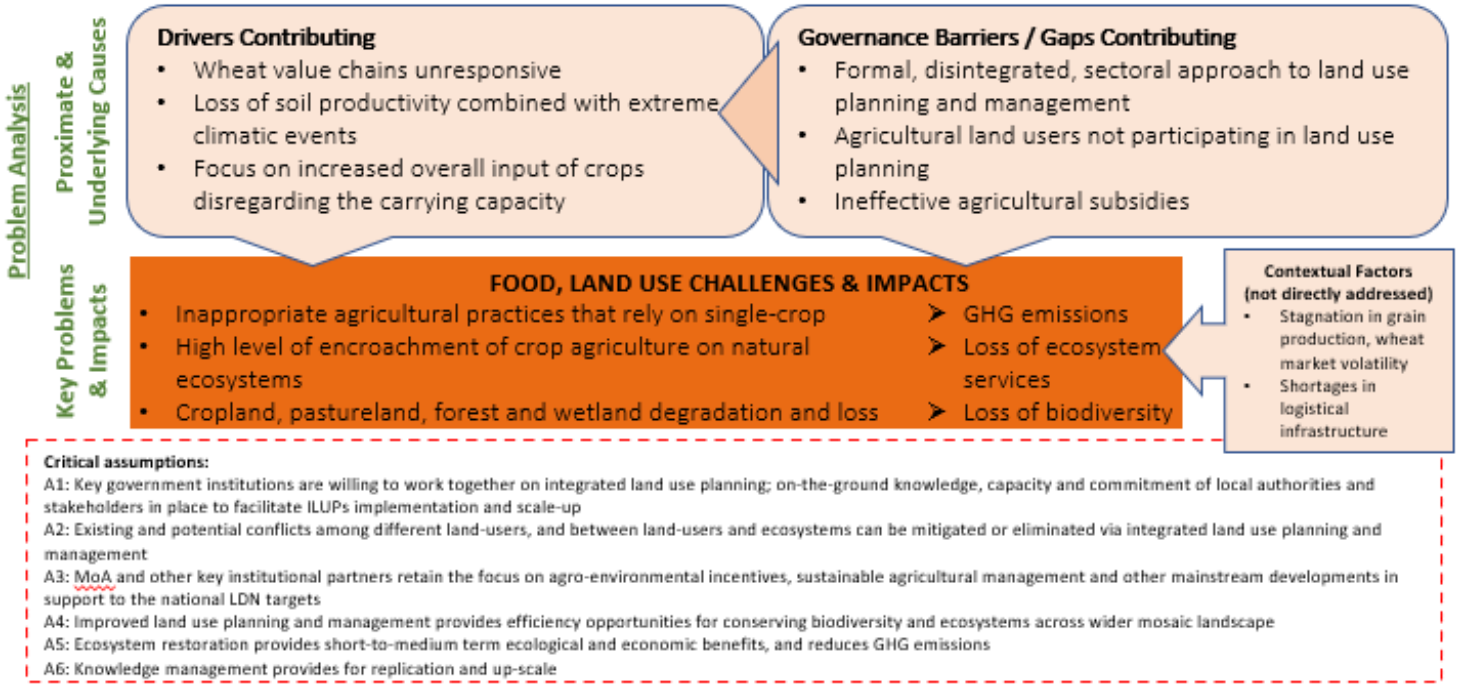
Monitoring	Indicators	Targets	Comments of indicators and targets	Data source/Collection Methods[15]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		proactively recruit participants to achieve gender balance e. Project education and awareness activities are developed and carried out incorporating gender perspectives, as relevant f. Gender disaggregated indicators are reported on annually						
Cross-cutting: Contribution to climate change mitigation	22. Tons of GHG avoided / sequestered (FOLUR Component 3 Outcome Indicator 5 / GEF-7 Core Indicator 6)	13,124,070 t CO_2	.	EX-ACT calculation tool; GIS analysis of project areas.	Annually Reported in DO tab of the GEF PIR	Project team; GIS expert.	EX-ACT calculation tool	- Per assumptions in EX-ACT tool - Project activities are implemented in the manner foreseen in the areas planned

Annex 6: Project Theory of Change Diagram

Sheet 1 of 2



Annex 6: Project Theory of Change Diagram (Sheet 2 of 2)



Annex 7: GEF Core Indicators at Baseline

Core Indicator 1	**Terrestrial protected areas created or under improved management for conservation and sustainable use**						***(Hectares)***
			Hectares (1.1+1.2)				
			Expected		Achieved		
			PIF stage	Endorsement	MTR	TE	
			0	*673,233*			
Indicator 1.1	Terrestrial protected areas newly created						
Name of Protected Area	WDPA ID	IUCN category	Hectares				
			Expected		Achieved		
			PIF stage	Endorsement	MTR	TE	
Turkty Refuge		VI	*0*	*53,059*			
Kokshetau Eco-Corridor		IV	*0*	*250,000*			
		Sum	*0*	*303,059*			
Indicator 1.2	Terrestrial protected areas under improved management effectiveness						
Name of Protected Area	WDPA ID	IUCN category	Hectares	METT Score			
				Baseline		Achieved	
				Endorsement	MTR	TE	
Kokshetau National Nature Park		II	93,799	59			64
Burabai State National Nature Park		II	129,299	63			67
Vostochniy State Nature ZRefuge (zakaznik)		VI	100,000	15			20
Bulandinskiy State Nature Refuge (zakaznik)		VI	47,076	15			20
		Sum	370,174				
Core Indicator 2	**Marine protected areas created or under improved management for conservation and sustainable use**						***(Hectares)***
			Hectares (2.1+2.2)				
			Expected		Achieved		
			PIF stage	Endorsement	MTR	*TE*	
Indicator 2.1	Marine protected areas newly created						
	WDPA ID	IUCN category	Hectares				
			Expected		Achieved		

Name of Protected Area				PIF stage	Endorsement	MTR	TE
			(select)				
			(select)				
			Sum				
Indicator 2.2	Marine protected areas under improved management effectiveness						
Name of Protected Area	WDPA ID	IUCN category	Hectares	METT Score			
				Baseline		Achieved	
				PIF stage	Endorsement	MTR	TE
		(select)					
		(select)					
		Sum					
Core Indicator 3	**Area of land restored**						***(Hectares)***
				Hectares (3.1+3.2+3.3+3.4)			
				Expected		Achieved	
				PIF stage	Endorsement	MTR	TE
				160,000	*161,717*		
Indicator 3.1	Area of degraded agricultural land restored						
				Hectares			
				Expected		Achieved	
				PIF stage	Endorsement	MTR	TE
			Pastures	*150,000*	*152,117*		
Indicator 3.2	Area of forest and forest land restored						
				Hectares			
				Expected		Achieved	
				PIF stage	Endorsement	MTR	TE
			Birch-aspen forest	*5,000*	*5,000*		
Indicator 3.3	Area of natural grass and shrublands restored						
				Hectares			
				Expected		Achieved	
				PIF stage	Endorsement	MTR	TE
Indicator 3.4	Area of wetlands (including estuaries, mangroves) restored						
				Hectares			
				Expected		Achieved	
				PIF stage	Endorsement	MTR	TE
			Wetlands and lakes	*5,000*	*4,600*		

Core Indicator 4	**Area of landscapes under improved practices (hectares; excluding protected areas)**					***(Hectares)***
			Hectares (4.1+4.2+4.3+4.4)			
			Expected		Expected	
			PIF stage	Endorsement	MTR	TE
			480,000	*485,523*		
Indicator 4.1	Area of landscapes under improved management to benefit biodiversity					
			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 4.2	Area of landscapes that meet national or international third-party certification that incorporates biodiversity considerations					
Third party certification(s):			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 4.3	Area of landscapes under sustainable land management in production systems					
			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
		diversification and improved management of productive croplands for better incomes and less soil depletion (Output 2.2.)	280,000	186,697		
		sustainable perennial crop systems as diversification from unsustainable production of wheat and other crops (Output 2.3)	*200,000*	298,826		
Indicator 4.4	Area of High Conservation Value Forest (HCVF) loss avoided					
Include documentation that justifies HCVF			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Core Indicator 5	**Area of marine habitat under improved practices to benefit biodiversity**					***(Hectares)***
Indicator 5.1	Number of fisheries that meet national or international third-party certification that incorporates biodiversity considerations					
Third party certification(s):			Number			
			Expected		Achieved	

			PIF stage	Endorsement	MTR	TE
Indicator 5.2	Number of large marine ecosystems (LMEs) with reduced pollution and hypoxia					
			Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 5.3	Amount of Marine Litter Avoided					
			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Core Indicator 6	**Greenhouse gas emission mitigated**					***(Metric tons of CO_2e)***
			Expected metric tons of CO_2e (6.1+6.2)			
			PIF stage	Endorsement	MTR	TE
	Expected CO2e (direct)		*10,322,063*	*13,124,070*		
	Expected CO2e (indirect)					
Indicator 6.1	Carbon sequestered or emissions avoided in the AFOLU sector					
			Expected metric tons of CO_2e			
			PIF stage	Endorsement	MTR	TE
	Expected CO2e (direct)		*10,322,063*	*13,124,070*		
	Expected CO2e (indirect)		*Not assessed at PIF*	*Not assessed*		
	Anticipated start year of accounting		*2021*	*2021*		
	Duration of accounting		*20*	*20*		
Indicator 6.2	Emissions avoided Outside AFOLU					
			Expected metric tons of CO_2e			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
	Expected CO2e (direct)					
	Expected CO2e (indirect)					
	Anticipated start year of accounting					
	Duration of accounting					
Indicator 6.3	Energy saved					
			MJ			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 6.4	Increase in installed renewable energy capacity per technology					

		Technology	Capacity (MW)			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
		(select)				
		(select)				
Core Indicator 7	**Number of shared water ecosystems (fresh or marine) under new or improved cooperative management**					***(Number)***
Indicator 7.1	Level of Transboundary Diagnostic Analysis and Strategic Action Program (TDA/SAP) formulation and implementation					
		Shared water ecosystem	Rating (scale 1-4)			
			PIF stage	Endorsement	MTR	TE
Indicator 7.2	Level of Regional Legal Agreements and Regional Management Institutions to support its implementation					
		Shared water ecosystem	Rating (scale 1-4)			
			PIF stage	Endorsement	MTR	TE
Indicator 7.3	Level of National/Local reforms and active participation of Inter-Ministerial Committees					
		Shared water ecosystem	Rating (scale 1-4)			
			PIF stage	Endorsement	MTR	TE
Indicator 7.4	Level of engagement in IWLEARN through participation and delivery of key products					
		Shared water ecosystem	Rating (scale 1-4)			
			Rating		Rating	
			PIF stage	Endorsement	MTR	TE
Core Indicator 8	**Globally over-exploited fisheries Moved to more sustainable levels**					***(Metric Tons)***
Fishery Details			Metric Tons			
			PIF stage	Endorsement	MTR	TE
Core Indicator 9	**Reduction, disposal/destruction, phase out, elimination and avoidance of chemicals of global concern and their waste in the environment and in processes, materials and products**					***(Metric Tons)***
			Metric Tons (9.1+9.2+9.3)			
			Expected		Achieved	
			PIF stage	PIF stage	MTR	TE
Indicator 9.1	Solid and liquid Persistent Organic Pollutants (POPs) removed or disposed (POPs type)					
POPs type			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
(select)	(select)	(select)				

(select)	(select)	(select)				
(select)	(select)	(select)				
Indicator 9.2	Quantity of mercury reduced					
			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 9.3	Hydrochloroflurocarbons (HCFC) Reduced/Phased out					
			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 9.4	Number of countries with legislation and policy implemented to control chemicals and waste					
			Number of Countries			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 9.5	Number of low-chemical/non-chemical systems implemented particularly in food production, manufacturing and cities					
		Technology	Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 9.6	Quantity of POPs/Mercury containing materials and products directly avoided					
			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	PIF stage	Endorsement
Core Indicator 10	**Reduction, avoidance of emissions of POPs to air from point and non-point sources**					***(grams of toxic equivalent gTEQ)***
Indicator 10.1	Number of countries with legislation and policy implemented to control emissions of POPs to air					
			Number of Countries			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 10.2	Number of emission control technologies/practices implemented					
			Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Core Indicator 11	**Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment**					***(Number)***
			Number			

			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
		Female	*12,000*	*50,000*		
		Male	*12,000*	*56,000*		
		Total	*24,000*	*106,000*		

Annex 8: Carbon calculations tracking tool (EX-ACT)

Presented as a separate file.

Annex 9: GEF 7 Taxonomy

Level 1	Level 2	Level 3	Level 4
☒**Influencing models**			
	☒**Transform policy and regulatory environments**		
	☒**Strengthen institutional capacity and decision-making**		
	☒**Convene multi-stakeholder alliances**		
	☒**Demonstrate innovative approaches**		
	☒**Deploy innovative financial instruments**		
☒**Stakeholders**			
	☐**Indigenous Peoples**		
	☒**Private Sector**		
		☐Capital providers	
		☒ Financial intermediaries and market facilitators	
		☒Large corporations	
		☒SMEs	
		☒Individuals/Entrepreneurs	
		☐Non-Grant Pilot	
		☐Project Reflow	
	☒**Beneficiaries**		
	☒**Local Communities**		
	☒**Civil Society**		
		☒Community Based Organization	
		☒Non-Governmental Organization	
		☒Academia	
		☐Trade Unions and Workers Unions	
	☒**Type of Engagement**		
		☒Information Dissemination	
		☒Partnership	
		☒Consultation	
		☒Participation	
	☒**Communications**		
		☒Awareness Raising	
		☒Education	
		☒Public Campaigns	
		☐Behavior Change	
☒**Capacity, Knowledge and Research**			
	☐**Enabling Activities**		
	☒**Capacity Development**		
	☒**Knowledge Generation and Exchange**		
	☐**Targeted Research**		
	☒**Learning**		
		☒Theory of Change	
		☐Adaptive Management	
		☒Indicators to Measure Change	
	☒**Innovation**		

	☒**Knowledge and Learning**		
		☒Knowledge Management	
		☒Innovation	
		☒Capacity Development	
		☒Learning	
	☒**Stakeholder Engagement Plan**		
☒**Gender Equality**			
	☒**Gender Mainstreaming**		
		☒Beneficiaries	
		☒Women groups	
		☒Sex-disaggregated indicators	
		☒Gender-sensitive indicators	
	☒**Gender results areas**		
		☒Access and control over natural resources	
		☒Participation and leadership	
		☒Access to benefits and services	
		☒Capacity development	
		☒Awareness raising	
		☒Knowledge generation	
☒**Focal Areas/Theme**			
	☒**Integrated Programs**		
		☒ Commodity Supply Chains (Good Growth Partnership)	
			☒Sustainable Commodities Production
			☐Deforestation-free Sourcing
			☐Financial Screening Tools
			☒High Conservation Value Forests
			☐High Carbon Stocks Forests
			☐Soybean Supply Chain
			☐Oil Palm Supply Chain
			☐Beef Supply Chain
			☒Smallholder Farmers
			☒Adaptive Management
		☐Food Security in Sub-Sahara Africa	
			☐Resilience (climate and shocks)
			☐Sustainable Production Systems
			☐Agroecosystems
			☐Land and Soil Health
			☐Diversified Farming
			☐Integrated Land and Water Management
			☐Smallholder Farming
			☐Small and Medium Enterprises
			☐Crop Genetic Diversity
			☐Food Value Chains
			☐Gender Dimensions
			☐Multi-stakeholder Platforms
		☒Food Systems, Land Use and Restoration	

			☒Sustainable Food Systems
			☒Landscape Restoration
			☒Sustainable Commodity Production
			☒Comprehensive Land Use Planning
			☒Integrated Landscapes
			☒Food Value Chains
			☐Deforestation-free Sourcing
			☒Smallholder Farmers
		☐Sustainable Cities	
			☐Integrated urban planning
			☐Urban sustainability framework
			☐Transport and Mobility
			☐Buildings
			☐Municipal waste management
			☐Green space
			☐Urban Biodiversity
			☐Urban Food Systems
			☐Energy efficiency
			☐Municipal Financing
			☐Global Platform for Sustainable Cities
			☐Urban Resilience
	☒**Biodiversity**		
		☒Protected Areas and Landscapes	
			☒Terrestrial Protected Areas
			☐Coastal and Marine Protected Areas
			☒Productive Landscapes
			☐Productive Seascapes
			☐ Community Based Natural Resource Management
		☒Mainstreaming	
			☐Extractive Industries (oil, gas, mining)
			☐Forestry (Including HCVF and REDD+)
			☐Tourism
			☒Agriculture & agrobiodiversity
			☐Fisheries
			☐Infrastructure
			☐Certification (National Standards)
			☐Certification (International Standards)
		☒Species	
			☐Illegal Wildlife Trade
			☐Threatened Species
			☒Wildlife for Sustainable Development
			☐Crop Wild Relatives
			☐Plant Genetic Resources
			☐Animal Genetic Resources
			☐Livestock Wild Relatives
			☐Invasive Alien Species (IAS)
		☒Biomes	
			☐Mangroves

			☐Coral Reefs
			☐Sea Grasses
			☒Wetlands
			☒Rivers
			☒Lakes
			☐Tropical Rain Forests
			☐Tropical Dry Forests
			☒Temperate Forests
			☒Grasslands
			☐Paramo
			☐Desert
		☐Financial and Accounting	
			☐Payment for Ecosystem Services
			☐Natural Capital Assessment and Accounting
			☐Conservation Trust Funds
			☐Conservation Finance
		☐Supplementary Protocol to the CBD	
			☐Biosafety
			☐Access to Genetic Resources Benefit Sharing
	☒**Forests**		
		☒Forest and Landscape Restoration	
			☐REDD/REDD+
		☐Forest	
			☐Amazon
			☐Congo
			☐Drylands
	☒**Land Degradation**		
		☒Sustainable Land Management	
			☒ Restoration and Rehabilitation of Degraded Lands
			☒Ecosystem Approach
			☒Integrated and Cross-sectoral approach
			☒Community-Based NRM
			☒Sustainable Livelihoods
			☒Income Generating Activities
			☒Sustainable Agriculture
			☒Sustainable Pasture Management
			☒Sustainable Forest/Woodland Management
			☒ Improved Soil and Water Management Techniques
			☒Sustainable Fire Management
			☐Drought Mitigation/Early Warning
		☒Land Degradation Neutrality	
			☒Land Productivity
			☐Land Cover and Land cover change
			☒Carbon stocks above or below ground

		☐ Food Security	
	☐ **International Waters**		
		☐ Ship	
		☐ Coastal	
		☐ Freshwater	
			☐ Aquifer
			☐ River Basin
			☐ Lake Basin
		☐ Learning	
		☐ Fisheries	
		☐ Persistent toxic substances	
		☐ SIDS : Small Island Dev States	
		☐ Targeted Research	
		☐ Pollution	
			☐ Persistent toxic substances
			☐ Plastics
			☐ Nutrient pollution from all sectors except wastewater
			☐ Nutrient pollution from Wastewater
		☐ Transboundary Diagnostic Analysis and Strategic Action Plan preparation	
		☐ Strategic Action Plan Implementation	
		☐ Areas Beyond National Jurisdiction	
		☐ Large Marine Ecosystems	
		☐ Private Sector	
		☐ Aquaculture	
		☐ Marine Protected Area	
		☐ Biomes	
			☐ Mangrove
			☐ Coral Reefs
			☐ Seagrasses
			☐ Polar Ecosystems
			☐ Constructed Wetlands
	☐ **Chemicals and Waste**		
		☐ Mercury	
		☐ Artisanal and Scale Gold Mining	
		☐ Coal Fired Power Plants	
		☐ Coal Fired Industrial Boilers	
		☐ Cement	
		☐ Non-Ferrous Metals Production	
		☐ Ozone	
		☐ Persistent Organic Pollutants	
		☐ Unintentional Persistent Organic Pollutants	
		☐ Sound Management of chemicals and Waste	
		☐ Waste Management	
			☐ Hazardous Waste Management
			☐ Industrial Waste
			☐ e-Waste
		☐ Emissions	

		☐Disposal	
		☐New Persistent Organic Pollutants	
		☐Polychlorinated Biphenyls	
		☐Plastics	
		☐Eco-Efficiency	
		☐Pesticides	
		☐DDT - Vector Management	
		☐DDT - Other	
		☐Industrial Emissions	
		☐Open Burning	
		☐ Best Available Technology / Best Environmental Practices	
		☐Green Chemistry	
	☒**Climate Change**		
		☐**Climate Change Adaptation**	
			☐Climate Finance
			☐Least Developed Countries
			☐Small Island Developing States
			☐Disaster Risk Management
			☐Sea-level rise
			☐Climate Resilience
			☐Climate information
			☐Ecosystem-based Adaptation
			☐Adaptation Tech Transfer
			☐National Adaptation Programme of Action
			☐National Adaptation Plan
			☐Mainstreaming Adaptation
			☐Private Sector
			☐Innovation
			☐Complementarity
			☐Community-based Adaptation
			☐Livelihoods
		☒**Climate Change Mitigation**	
			☒Agriculture, Forestry, and other Land Use
			☐Energy Efficiency
			☐Sustainable Urban Systems and Transport
			☐Technology Transfer
			☐Renewable Energy
			☐Financing
			☐Enabling Activities
		☐**Technology Transfer**	
			☐ Poznan Strategic Programme on Technology Transfer
			☐Climate Technology Centre & Network (CTCN)
			☐Endogenous technology
			☐Technology Needs Assessment
			☐Adaptation Tech Transfer

		☐ **United Nations Framework on Climate Change**	☐ Nationally Determined Contribution
	☒ **Rio Markers**		
		☐ Paris Agreement	
		☒ Sustainable Development Goals	
		☐ Climate Change Mitigation 0	
		☒ Climate Change Mitigation 1	
		☐ Climate Change Mitigation 2	
		☐ Climate Change Adaptation 0	
		☐ Climate Change Adaptation 1	
		☐ Climate Change Adaptation 2	

Annex 10: Overview and responsibilities of project staff and contractors

I. Terms of Reference for the Project Board

1. Composition and organization:

The Project Board contains three roles, including (1) an executive: individual representing the project ownership to chair the group; (2) senior supplier: individual or group representing the interests of the parties concerned which provide funding and/or technical expertise to the project; and (3) senior beneficiary: individual or group of individuals representing the interests of those who will ultimately benefit from the project.

2. Specific responsibilities

A. Initiating a project:

- Agree on PM's RP Executive Officer's responsibilities, as well as the responsibilities of the other members of the Project Management team;
- Delegate any Project Assurance function to UNDP CO as appropriate;
- Review and appraise detailed Project Plan and AWP, including Atlas reports covering activity definition, quality criteria, issue log, updated risk log and the monitoring and communication plan.

B. Running a project:

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
- Address project issues as raised by the Project Manager and RP Executive Officer;
- Provide guidance and agree on possible countermeasures/management actions to address specific risks;
- Agree on Project Manager's tolerances in the Annual Work Plan and quarterly plans when required;
- Review Combined Delivery Reports (CDR) prior to certification by the Implementing Partner;
- Appraise the Project Annual Review Report, make recommendations for the next AWP, and inform the Outcome Board about the results of the review.
- Review and approve end project report, make recommendations for follow-on actions;
- Provide ad-hoc direction and advice for exception situations when project manager's tolerances are exceeded;
- Assess and decide on project changes through revisions;

C. Closing a project:

- Assure that all Project deliverables have been produced satisfactorily;
- Review and approve the Final Project Review Report, including Lessons-learned;
- Make recommendations for follow-on actions to be submitted to the Outcome Board;
- Commission project evaluation (only when required by partnership agreement)
- Notify operational completion of the project to the Outcome Board.

3. Executive

The Executive is ultimately responsible for the project, supported by the Senior Beneficiary and Senior Supplier. The Executive's role is to ensure that the project is focused throughout its life cycle on achieving its objectives and delivering outputs that will contribute to higher-level outcomes. The Executive has to ensure that the project gives value for money, ensuring a cost-conscious approach to the project, balancing the demands of beneficiary and supplier. Specific Responsibilities (as part of the above responsibilities for the Project Board) include:

- Ensure that there is a coherent project organization structure and logical set of plans
- Set tolerances in the AWP and other plans as required for the Project Manager
- Monitor and control the progress of the project at a strategic level
- Ensure that risks are being tracked and mitigated as effectively as possible
- Brief Outcome Board and relevant stakeholders about project progress
- Organize and chair Project Board meetings.

4. Senior Beneficiary

The Senior Beneficiary is responsible for validating the needs and for monitoring that the solution will meet those needs within the constraints of the project. This role represents the interests of all those who will benefit from the project, or those for whom the deliverables resulting from activities will achieve specific output targets. The Senior Beneficiary role monitors progress against targets and quality criteria. Specific Responsibilities (as part of the above responsibilities for the Project Board) include:

- Ensure the expected output(s) and related activities of the project are well defined
- Make sure that progress towards the outputs required by the beneficiaries remains consistent from the beneficiary perspective
- Promote and maintain focus on the expected project output(s)
- Prioritize and contribute beneficiaries' opinions on Project Board decisions on whether to implement recommendations on proposed changes
- Resolve priority conflicts

The assurance responsibilities of the Senior Beneficiary are to check that:

- Specification of the Beneficiary's needs is accurate, complete and unambiguous
- Implementation of activities at all stages is monitored to ensure that they will meet the beneficiary's needs and are progressing towards that target
- Impact of potential changes is evaluated from the beneficiary point of view
- Risks to the beneficiaries are frequently monitored

5. Senior Supplier

The Senior Supplier represents the interests of the parties, which provide funding and/or technical expertise to the project (designing, developing, facilitating, procuring, implementing). The Senior Supplier's primary function within the Project Board is to provide guidance regarding the technical feasibility of the project. The Senior Supplier role must have the authority to commit or acquire supplier resources required. Specific Responsibilities (as part of the above responsibilities for the Project Board) include:

- Make sure that progress towards the outputs remains consistent from the supplier perspective
- Promote and maintain focus on the expected project output(s) from the point of view of supplier management
- Ensure that the supplier resources required for the project are made available
- Contribute supplier opinions on Project Board decisions on whether to implement recommendations on proposed changes
- Arbitrate on, and ensure resolution of, any supplier priority or resource conflicts

The supplier assurance role responsibilities are to:

- Advise on the selection of strategy, design and methods to carry out project activities
- Ensure that any standards defined for the project are met and used to good effect
- Monitor potential changes and their impact on the quality of deliverables from a supplier perspective
- Monitor any risks in the implementation aspects of the project

II. Terms of References of Key Project Staff

Recruitment processes for project positions will adhere to gender sensitive guidelines for recruitment and selection of candidates and assessment of gender related competencies.

1. Terms of Reference: National Project Manager – Principal Technical Coordinator

Background

The National Project Manager – Principal Technical Coordinator (PM) will be a locally recruited national selected based on an open competitive process. He/she will be providing technical input for the implementation of the project, will ensure technical coordination and mobilization of all project inputs and synergy between the project components, and will also be responsible for the overall management of the project, supervision over project staff, consultants and sub-contractors. The PM will be tasked with the day-to-day management of project activities (40% of his/her time), as well as with substantive input to Outcomes 1, 2, 3 and 4 (60% of time). The PM's prime responsibility is to ensure that the project produces the planned outputs and achieves the planned indicators and indicator 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.

In his/her role of the Technical Coordinator for the project (60%), the PM is in charge of the substantive contribution to project declared outcomes and outputs according to the approved Project Document. The PM is to ensure that the project impact contributes to the overall achievement of the main objective set for the project, and the project delivers the global environmental benefits as pledged in the project document. The PM prepares the yearly project workplan for the appraisal by the Project Board, develops TORs/SOWs for project activities and ensures the technical appraisal of project products and deliverables. The PM is responsible for coordination of project activities with parallel initiatives undertaken by the regional administrations and governmental authorities, PAs and other project stakeholders.

The PM will report to the Responsible Party for all of the project's substantive and administrative issues under overall oversight of the Implementing Partner and UNDP Kazakhstan CO. The PM 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.

Duties and Responsibilities

Technical Responsibilities (60% of time), contribution to Outcomes 1, 2, 3, and 4:

- Plan the activities under Components 1,2,3, and 4 jointly with technical specialists against the initial quality criteria, i.e. vis-à-vis indicators in the logframe;
- Ensure technical coordination and mobilization of all project inputs and synergy between the project's technical components throughout the project implementation;
- Under Component 1, contribute to the development of the ILUPs and streamline the integrated management approach and cross-sectoral cooperation and coordination in order to achieve the transformation of the current system of land use and sectoral land and nature resource management in the Northern Kazakhstan;
- Under Components 2, and 4: Facilitate the engagement of the private sector in supply chains and discussions on food platforms, including dialoge agribusiness, food processing industry, and the financial sector, as key project partners;
- Under Component 3: provide technical leadership and guidance to the project implementation team and development partners to make sure that the project efforts in providing better management to the productive lands are balanced with the care for the unique environmental values of the natural "buffer" areas within the mosaic landscape of the Northern Kazakhstan;
- Make sure that the project planning for all technical components is done on the basis of a thorough feasibility analysis and the best available knowledge and practices; ensure that the project planning is adaptive to the changing implementation environment and takes into account the existing practice and lessons that are being learned from the other projects and regions;
- Prepare Terms of References and work specifications for key technical experts under Components 1, 2,3 and 4. Coach and train the technical experts under components until they are fully capable of implementing the tasks.
- Review technical reports (in particular under Components 1 and 4), substatnailly contribute to development of technical knowledge products and other deliverables obtained from consultants and contractors, ensure technical assessment and control of quality;
- Under Component 4: monitor the implementation of project components, analyse problems that hamper their implementation and takes appropriate measures to ensure timely delivery of required inputs and achievement of project-wide results;
- Monitor and control the technical progress of the project at a strategic level and ensure adequate project performance in terms of delivery of progress indicator values in accordance with the Project Strategic Framework and agreed timeframes;
- Under Component 4: lead the team on coordination with the Global FOLUR program, participate in Greenn Commodity discussions. Develop and deliver technical presentation on the project at international for a.
- Under Component IV: Ensure implementation of the project M&E plan; Prepare Management Response to project MTR and FE; Document lessons learned for the project;
- Act as a focal point for media interventions on technical aspects of the project. Monitor and facilitate advocacy and mass media outreach activities, write success stories, ensure newspapers coverage, participate in PR campaigns;
- Ensure cooperation of the project with the relevant regional initiatives and the activities on sustainable wheat production and integrated landscape planning.

- Under Component IV: Liaise with other UNDP and UNDP-GEF funded projects to implement possible synergies and reports to UNDP Programme Officer and PB on conducted activities.
- Undertake resource mobilization in areas of technical project scope to contribute to project scaling-up and replication in Kazakshtan and beyond.

Management Responsibilities (40% of time)

- Prepare the annual workplan and quarterly operational workplans as required by the Project Board and the Implementing Partner; prepare the Annual Work Plan (AWP) and Annual Plan of Activities and Procurement Plan for the project years as requested by UNDP;
- Ensure implementation of the project workplan as scheduled;
- Ensure that there is a coherent project organization structure and logical set of plans;
- Approve and sign basic project and financial documents and other plans as required;
- Brief Project Board and relevant stakeholders about project progress;
- Provide technical, information and secretary support to the Project Board; organize and moderate Project Board meetings;
- Carry out regular inspections of principle activities at project sites;
- Timely record and communicate problems and issues to the Implementing Partner, Project Board and UNDP, develop and ensure implementation of corrective and adaptive management measures;
- Prepare the Quarterly Project Report (progress against planned activities, update on Risks and Issues, expenditures in UNDP format) and Quarterly Operational Report and submit the reports to the UNDP Project Assurance team;
- Manage and monitor the project risks as initially identified in the Project Document, submit new risks to the Project Board for consideration and decision on possible actions if required; update the status of these risks by maintaining the project's Atlas Risks Register;
- Prepare the Project Implementation Report and submit reports to the Project Assurance team and GEF;
- Monitor financial resources and accounting to ensure accuracy and reliability of financial reports, including proper utilization of funds and delivery, budget revisions, availability of funds, reconciliation of accounts, establishment of internal control mechanisms. Acts as a focal point to liaise with auditors and ensures follow-up actions. Ensures the accuracy and reliability of financial information and reporting;
- Participate in project procurement and selection of contractors and consultants;
- Supervise the project team, monitor and assess performance of project staff and consultants;
- Sign annual CDRs with UNDP and the Implementing Partner;
- Monitor co-financing for project activities according to the commitments presented in the Project Document, report on co-financing;
- Organize workshops, seminars and round tables to introduce project outputs to all stakeholders involved. Render support to related UNDP thematic activities such as publications, sharing of knowledge and group discussions;
- In cooperation with the UNDP CO and national project experts, develop a suitable project exit strategy during the last year of the project;
- Ensure proper operational, financial and programmatic closure of the project;
- Manage the transfer of project deliverables, documents, files, equipment and materials to national beneficiaries;
- Prepare final CDR for signature by UNDP and the Implementing Partner.

<u>Qualifications</u>

- A university and/or a higher degree in agricultural/environmental science, international relations, business administration or other related fields;
- At least 10 of years of relevant experience. Practical experience in project management. Working experience in international organizations is an advantage;

- Proven management expertise – must be able to fluidly handle the political, technical, and people management challenges that the PM will face on a daily basis;
- Working experience with ministries, national institutions, regional and local authorities in Kazakhstan;
- Ability to effectively coordinate a large, multi-stakeholder project;
- Sound experience in the project management associated with sustainable land & water resources management, green food production & sustainable value chains and corresponding sustainable development and corresponding UN conventions and treaties;
- Knowledge of and experience in gender mainstreaming is an asset;
- Strong analytical, communication, writing, presentation, communication and reporting skills;
- Excellent interpersonal and cross cultural communication skills, ability to work in a team and to work under pressure and with tight deadlines, ethics and honesty;
- Strong computer skills, in particular mastery of all applications of the MS Office package and internet search;
- Excellent command of spoken and written English, Kazakh and Russian are essential;
- Willingness to travel as appropriate

2. Terms of Reference: Responsible Party Executive Official

RPs Executive Official ensures timely and quality implementation of the LoA on project execution support, ensures adherence to the national and UNDP rules and procedures and other requirements set through the LoA. The RP's Executive Official ensures procurement of goods and services for the project, recruitment of project personnel and experts, he/she issues and maintains contracts with suppliers of goods and services, is accountable for the adequate financial management and record keeping and maintains project documentation for audits/investigations. RP's Executive Official reports to the National Implementing Partner and UNDP.

Responsible Party Executing Official will dedicate 30% of its time to administrative & financial and technical oversight of the Project.

RP's Executive Official's (RP EO) specific functions are as follows:

- RP EO ensures recruitment of project personnel and experts and procurement of goods and services for the project, and participates in the selection of project consultants and subcontractors;
- Issues contracts and ensures adequate contract management and certification of acceptance of goods and services delivered by supplies; this includes signature of contracts and acceptance deeds, clearance of invoices, contract closure, extension, performance evaluation and other processes as required by UNDP and national rules and procedures;
- Validates payments for the project by the RP;
- Signs off the financial reporting for UNDP and the NIM IP;
- Ensures maintenance of supporting documentation (invoices, bills, delivery notes, acceptance deeds, tender documentation, etc.) for each payment and/or each contract concluded in the framework of the Project for at least 5 years;
- Ensures timely fulfillment of tax liabilities and other obligations, ensures compliance with the existing national legislation and regulations;
- Takes part in the asset inventory panel for the project.

Specific operational requirements for the RPs executive to ensure:

- The financial, procurement and HR rules and regulations of the RP will apply only to the extent that they do not contravene the principles of UNDP's Financial Regulations and Rules. RP should be able to adjust its own operational procedures for project-related operations, to make sure that those do not contravene UNDP financial, procurement and HR principles, rules and regulations.
- RP will maintain the standards of recruitment and management of the RP's personnel and experts affiliated with the implementation of the Terms of Reference in order to ensure the prohibition of conflicts of interest and corrupt practices in connection with contracts or other benefits associated with the UNDP project.
- RP will have to make sure that, according to UNDP Financial Rules and Regulations, UNDP funds received by the RP are "exempt from all direct taxes, except charges for public utility services, and are exempt from customs duties and charges of a similar nature".
- RP will be audited annually by independent UNDP NIM financial audit.

- RP should be able to provide all project related documentation and back statements and report in case on internal audit or investigation by UNDP'
- RP will carry responsibility over administrative/legal disputes with the contractors for the project.

3. Task Leaders for Outcomes 1, 2 & 3

Background

Under the guidance and supervision of the Project Manager, the Task Leader provides operational and thematic services ensuring high quality, accuracy and consistency of work. The Task Leader works in close collaboration with the Government counterparts, project, operations, and Programme's staff in the CO to exchange information and ensure consistent service delivery, and undertake day-to-day responsibility for operational and thematic support services for the satisfactory achievement of the project component outputs. The Task Leaders will be experienced national experts in (1) integrated landscape planning & management, (2) sustainable productive croplands, livestock management and food production, and (3) conservation & restoration of natural habitat and recruited to coordinate the project's relevant project activities and provide overall technical backstopping to Outcomes 1, 2 & 3.

Thematic functions: Provide technical and administrative assistance for delivery of the Component 1, 2 or 3 of the Project including all outputs (See Project strategy for each Component for details). Ensure project participation in Green Commodities Program Community of Practice to share knowledge with project stakeholders and commodity actors. Participate in FOLUR Global Platform trainings and capacity building events.Engage with the FOLUR Global Platform on Knowledge Management aspects, such as suggesting relevant topics for reports, contributing case studies, and promoting the FOLUR global outputs in Kazakhstan through seminars and outreach.

Operational functions:

Contribution to Inception Phase, Periodic Review of Project Implementation and Advice on Improvement

- Contribute to the project inception phase, develop inception report and attend inception workshop;
- Coordinate with the PM and team in order to monitor progress, assist in planning, and identify key technical problems (if any) and means for solving them;
- Participate, when feasible, in Project Board Meetings and other relevant project meetings;
- Assist in capturing the key lessons and developing a replication plan for other regions and communities in Kazakhstan. As part of the replication strategy, assist in developing replication materials for wider dissemination and application of project results and lessons learned;
- In cooperation with the project team and UNDP CO, develop a suitable project exit strategy, and present it for approval to the PSC Meeting.

Assistance in Planning, Staff Recruitment, Monitoring and Evaluation

- Provide support and advice for preparation or revision of key planning and evaluation documents such as the project Annual Plan of Actions (APAs), Annual Work Plan (AWPs), Project Implementation Reviews (PIRs), progress reports, monitoring and review reports etc.;
- Assist in the development of relevant Terms of References and mobilization of qualified national and international experts and organizations needed to provide specific consultancy services;
- Support Project Manager in the preparation and implementation of the Mid-Term and Terminal Evaluations (TORs, selection of appropriate candidates, accompaniment of field missions if and when required, discussion with evaluators, etc.).

4. Terms of Reference: Project Administrative & Financial Assistant

Background

Under direct supervision of the Project Manager, Administrative and Financial Assistant is fully responsible for operational and programmatic management of the project according to the project document, GEF corporate rules and NIM implementation agreed standards & procedures and for fulfilling but not limiting the following functions:

Duties and Responsibilities:

- Bear responsibilities for logistics, procurement, finance and recruitment for the project, in accordance with corporate UNDP rules and regulations;
- Prepare all financial and administrative documents related to the project implementation;

- Develop quarterly and annual budget plans for recruitment of personnel; maintain financial records and monitoring systems to record and reconcile expenditures, balances, payments and other data for day-to-day transaction and reports;
- Advise and assist Project staff, experts and consultants on all respects of allowances, salary advances, travel claims and other financial and administrative matters, and calculate and authorize payments due for claims and services;
- Prepare detailed cost estimates and participates in budget analysis and projections as required to handle all financial operations of the project office and reconcile all accounts in required time frame;
- Maintain, update and transmit inventory records of non-expendable equipment in accordance with UNDP rules;
- Perform cash custodian's duties being primarily responsible for project's cash disbursements and maintain project's petty cash book and payrolls;
- Ensure leave monitoring of project staff, check the accuracy and proper completion of monthly leave reports;
- Analyze the potential problems concerning administrative-financial issues and take respective measures to provide adequate project's resources in time for implementation of the project activities;
- Define the cost-effective measures for optimal use of resources of the project;
- Ensure full compliance of administrative and financial processes and financial records with UNDP and GEF related rules, regulations, policies and strategies;
- Encourage awareness of and promotion of gender equality among project staff and partners;

Perform other duties related to personnel, administrative and financial issues of project as required

Qualifications:

- Bachelor degree in any of the following areas: Finance, Economics, Management, Environmental sciences, International Relations, or any related field;
- At least 2-3-years relevant experience. Working experience in international organizations is an advantage;
- Strong financial and administrative skills, result and client-orientation, ability to work in a team;
- Ability to work under pressure and with tight deadlines, ethics and honesty;
- Ability to use information and communication technology as a tool and resource;
- Experience in handling web-based management systems;
- Ability to handle multiple tasks simultaneously and ability to prioritize
- Good computer skills in common word processing (MS Word), spreadsheet (MS Excel), and accounting software;
- Appropriate English, Kazakh and Russian language skills, both spoken and written.

5. Terms of Reference: Responsible Party Accountant

RP's Accountant organizes financial control and accounting systems for the Project funds operated by the RP, prepares requests for advance of project funds and RPs financial reports, implements cash control, supports the annual NIM audit.

RPs Accountant's specific functions are as follows:

- RP's Accountant opens and maintains a separate bank account for the project and ensures access to the transaction detail reporting on that account as requested for UNDP NIM audit/investigation and the relevant national authorities;
- Ensures financial controls over project transactions;
- Interacts with the national Tax authorities and prepares necessary documentation related to the Project funds;
- Prepares cash position reports for the annual NIM audit, as well as other financial information required by the audit;
- Prepares reports on income and disbursements of funds, tax and statistical reports, and submits them in accordance to established procedures to the relevant national
- authorities;
- Prepares requests and the planned expenditure breakdowns for quarter advances from UNDP;
- Effects payment transactions from the RPs bank account opened for the Project;
- Prepares quarterly and annual financial reports for UNDP on RP's disbursements related to the Project;
- Prepares and maintains contracts with experts and personnel employed by the RP for the Project;
- Prepares and maintains contracts with suppliers of goods and services;

- Keeps the Project inventory ledgers (on equipment being at the disposal of the Implementing Partner);
- Takes part in the asset inventory panel, performs physical inventory of project assets;
- Supports annual audits, ad-hoc checks, investigations, inquiries and other financial processes of the RP as required.

6. Terms of Reference: Procurement Specialist

Background

The Procurement Specialist (PS) will be a locally recruited national selected based on an open competitive process. He/she will report to the Project Manager (PM) and assist the PM in the coordination of the UNDP-GEF project. S/he will lead the project's procurement activities for all Outcomes including drafting procurement plan based on the project's annual work plan and project document, drafting specs for subcontracts based on ToRs provided by project Task Leaders and PM, lead recruitment process for the project. S/he will assess support requirements against project objectives and operating environment.

Duties and Responsibilities

- Development of a plan and monitoring of procurements annually according to the agreed format;
- Contribute to development of projects' Procurement Action Plan and initiate procurement procedures for project equipment, supplies and services in a transparent and cost-effective manner; recommend procurement decision;
- Collection and systematization of the information on potential suppliers of services/goods;
- Ensuring tender selection of the supplier of services/goods in accordance with the agreed NIM requirements and procedures;
- Preparation of motivations on the selected supplier of services/goods for consideration by the UNDP procurement committee;
- Preparation in consultation with the project experts the justifications for selected suppliers of goods/services;
- Preparation, agreement upon and arrangement the approval of contractual documents pertaining to procurements of goods/services; to control the progress of suppliers' contractual terms and conditions and inform PM;
- Creation of requisitions under signed contracts and tranches, monitoring requests;
- Equipment inventory, preparing reports about equipment condition;
- Assistance to PM and Outcome Task Leaders in preparing the annual/quarterly project budgets;
- Assist in monitoring the projects' financially to ensure the efficient and timely delivery of inputs and the realization of the targeted expenditure/delivery rate;
- Timely preparation of financial documents required for audit and other reporting;
- Maintain the archive data log; enter all the data pertaining to contracts, reports, the inventory list of equipment, etc., revision and updating such data in the established format for further use;
- Maintain the records pertaining to the issuance of project equipment; maintain monitoring of such equipment

Qualifications

- University degree, preferably in economics, accounting, financial management or business administration;
- At least 4 years of experience in financial administration and procurement;
- Experience in the international companies/organizations is an advantage;
- Previous experience in working with UNDP/GEF projects is preferable;
- Solid experience of planning and reporting on foreign funded projects;
- Good organizational capacity;
- Knowledge in administrative procedures of the Government and UNDP;
- Good computer skills in common word processing (MS Word), spreadsheet (MS Excel), and accounting software;
- Appropriate English, Kazakh and Russian language skills, both spoken and written.

Indicative Summary of Project Positions

#	Position Title	Role in the project by outputs	$ per week (Gross)	Estimated weeks
	Project Team			
1	Project Manager	National Project Manager (PM) is responsible for general daily co-ordination of the project at the national level under the supervision of National Project Director (NPD). PM leads the work of the Project Implementation Groups and is fully responsible for effective implementation of all the project activities. PM ensures timely and efficient planning, controls and monitors the project activities in accordance with GEF/UNDP procedures for planning, monitoring and reporting. PM ensures effective teamwork on the basis of international standards of business administration and HR management. PM maintains contacts with the Forestry and Wildlife Committee of MoA RoK (Implementing Partner for the project), and with Project Director. PM is responsible for timely financial and progress reporting.	945	260
2	Responsible Party Executive Official	30% of time allocated to project management & implementation. See RP Executive Official's specific duties & responsibilities above.	631	260
3	Task Leader for Integrated Land Use Planning & Management Systems (Outcome 1)	Task Leader for Outcome 1 provides technical and administrative assistance for delivery of all outputs and activities related to integrated landscape level land use planning & management as stated in the approved UNDP ProDoc (Project Strategy and relevant Annexes). Task Leader reports to PM. Along with thematic responsibilities, the Task Leader will perform operational functions assisting PM in coordination & management of project activities and reporting. See details in the ToR above.	840	156
4	Task Leader for Sustainable Food Production & responsible value chains (Outcome 2)	Task Leader for Outcome 2 provides technical and administrative assistance for delivery of all outputs and activities related to sustainable food production & responsible value chains as stated in the approved UNDP ProDoc (Project Strategy and relevant Annexes). Task Leader reports to PM. Along with thematic responsibilities, the Task Leader will perform operational functions assisting PM in coordination & management of project activities and reporting. See details in the ToR above.	840	260
5	Task Leader for Conservation & Restoration of natural habitat (Outcome 3)	Task Leader for Outcome 3 provides technical and administrative assistance for delivery of all outputs and activities related to conservation and restoration of natural habitat as stated in the approved UNDP ProDoc (Project Strategy and relevant Annexes). Task Leader will provide technical backstopping to Outputs 3.2, 3.3 and 3.4 in particular related to restoration of degraded forests, creation of forest nurseries and fire prevention & control measures at pilot sites. Task Leader reports to PM. Along with thematic responsibilities, the Task Leader will perform operational functions assisting PM in coordination & management of project activities and reporting. See details in the ToR above.	840	260
6	KM and Outreach Specialist (Outcome 4)	The KM & Outreach Specialist will be responsible for communicating the project among stakeholders, beneficiaries and to the broader public. The Specialist will work in close collaboration with the project team and partner organizations. The Specialist will lead the design, management and implementation of the gender-sensitive knowledge management plan & communication strategy for the Project based on strong partnerships with national, regional & local governments, private and public sectors, farmers, community-based organizations and mass media. The Specialist will facilitate development of the National Experience Exchange Platform based on the draft concept note as included in the approved UNDP Prodoc. The Specialist will coordinate the project's work on long-term vocational and academic curricula. The Specialist will maintain media relationships, PR, advocacy and awareness raising activities (press conferences, conferences, workshops, seminars, media tours, campaigns, side	537	208

#	Position Title	Role in the project by outputs	$ per week (Gross)	Estimated weeks
		events, etc), producing external and internal communication materials and writing for project purposes. The Specialist will support the project in engaging with regional and global activities and initiatives related to the Global FOLUR Platform, and ensure strong project participation in and contributions to such activities and initiatives. Participate in the Green Commodities Program Community of Practice. He/she is expected to participate in FOLUR Global Platform trainings and capacity building events, and contribute to periodic needs assessment surveys and FOLUR Global Platform Annual Meetings to guide knowledge and outreach product development. The Specialist will ensure cross linking of the project web resources and FOLUR Global Platform websites. The Specialist will interact with the FOLUR Global Platform communications officer regarding project press coverage for amplification and mitigation.		
7	Protected Areas and Eco corridor Specialist	The PAs and Eco corridor Specialist will be responsible for the effective implementation of measures aimed at achieving Outcome 3 with a focus on improved management and conservation of natural habitats around intensely managed landscapes of NKL to ensure that valuable steppe, forest-steppe, forest and wetland ecosystems remain healthy and productive. The scope of activities of the Specialist includes the support for creation and operationalization of a new PA and eco corridor in the Kokshetau Uplands, the development of the management plans of target PAs & forestries to ensure that high-nature value ecosystems including HCVFs are managed based on international standards; assessment of the management and financial effectiveness; planning for adequate biodiversity monitoring, fire prevention & control systems for PAs and forestries; and upgrade the capacity of the PA, forestry staff based on capacity needs assessment. The Specialist will oversee the preparation of studies on creation/expansion of the PA system and eco corridor in project sites, demonstration activities at selected pilot sites on restoring productivity of degraded wetland areas in NKL,; will ensure timely and efficient planning, execution of activities and result delivery in accordance with the project document and reporting on the progress of approved activities under Outcome 3 of the project. Along with that the Specialist will be responsible for coordination and implementation of relevant activities within Outcomes 1, 2, 3 & 4 where the PA management and biodiversity conservation issues are addressed. This includes species and habitats management planning, nature resource use patterns for landscape planning activities (PAs & forestries), vocal & academic trainings, awareness raising, advocacy events, etc.	657	260
8	Hunting & Wildlife Management Specialist	The Hunting & Wildlife Management Specialist will be responsible for the activities on sustainable hunting and wildlife management under the Outcome 3. The scope of activities of the Specialist includes the review and alignment of wildlife and biodiversity monitoring and reporting for hunting and forestry units in the pilot area and update of their wildlife inventory & monitoring systems; overseeing an inventory of hunting concessions in the area of the ecological network that will result in revising the zoning arrangements at a landscape level; coordinating the development of a proposal for optimizing land areas of hunting concessions to align with conservation objectives of the Kokshetau Uplands ecological network; demonstration of effective financial and economic mechanisms for sustainable operations of a pilot hunting area; and upgrade the capacity of the hunting areas staff based on capacity needs assessment.	657	208

#	Position Title	Role in the project by outputs	$ per week (Gross)	Estimated weeks
		Along with that the Specialist will be responsible for coordination and implementation of relevant activities within Outcomes 1, 2, 3 & 4 where the wildlife management and monitoring issues are addressed. This includes biodiversity inventory for newly planned PAs, design of monitoring programs for new and existing PAs, species and habitats management planning, nature resource use patterns for landscape planning activities (hunting), vocal & academic trainings, communication, advocacy & awareness raising events, etc.		
9	Project Administrative & Finance Assistant	The Project Assistant will provide support to the project implementation team to carry out broad array of tasks on a daily basis. The Project Assistant will be responsible for all administrative (contractual, organizational and logistics) issues and the issues related to financial operations (payment for services and goods, payments, accounting, cash management and others).	412	260
10	Responsible Party Accountant	30% to project financial management & accounting. See details in the description of specific duties & responsibilities above.	378	260
11	Procurement Specialist	Procurement specialist will deliver procurement services and financial support services for the project including bidding, competitive selection, and contracting services and goods as required by the project. The Procurement Specialist will be accounting of the project funds and financial planning and reporting in line with UNDP requirements and procedures. It is expected that the Procurement Specialist will support project team in daily administration of personnel, travel, premises and other contracted services.	657	208
	IC Assignments			
12	Database & GIS	The Database & GIS expert will assist with implementation of Outputs 1.1 and 3.1. In particular, the expert will perform the following tasks: (i) development of a GIS-based land use concept including GIS-based maps) for different types of land use given development priorities of pilot rural okrugs and ecosystems' potential; (ii) creation GIS-based maps for ecocorridor, pilot hunting concessions. Costs are covered under Outcome 3.	500	52
13	Institutional effectiveness & capacity development expert	The expert will assist Outcome Task Leaders with implementation of Outputs 1.2, 3.1, 4.1, 4.3. In particular, will coordinate project activities related to institutional effectiveness and capacities of project partners and various stakeholder groups. S/he will initiate performance reviews to identify weaknesses and needs for capacity building of different stakeholder groups and will facilitate training sessions.	600	156
14	Legal expert	The Legal expert will assist with implementation of Outputs 1.1 and 2.1. where it concerns ILUP preparation	600	15
15	Stakeholder engagement & communication expert	The expert will assist Outcome Task Leaders with implementation of Outputs 1.1, 3.1, 3.4, 4.1, 4.3. In particular, s/he will coordinate participatory engagement of stakeholders in (i) the landscape land use planning exercise in the three pilot rural okrugs; (ii) planning & creation of the eco corridor; (iii) planning & implementation of fire control & prevention measures at community level; (iv) exchange and experience sharing platform; and (v) KM, information, awareness & advocacy raising project events. The Expert will update at the inception phase the project's Stakeholder Engagement & Communication Plan as stated in the approved Prodoc (Annex 12) and coordinate its implementation. The expert will contribute to annual reporting on stakeholder engagement to the PB, UNDP CO and the GEF.	600	156
16	Socio-economist & gender expert	The socio-economist expert will assist Outcome Task Leaders with implementation of Outputs 1.1 and 1.2., 2.5, 3.1, 4.1. The expert will coordinate implementation of the Project's Gender Action Plan as	550	52

#	Position Title	Role in the project by outputs	$ per week (Gross)	Estimated weeks
		stated in the approved UNDP Prodoc, will oversee gender-sensitive capacity & socio-economic assessment of stakeholder groups and integrate results in annual work planning. The expert will contribute to annual reporting on gender mainstreaming in the project to the PB, UNDP CO and the GEF.		
17	How-to-Guide Expert on land use planning	The How-to-Guide Expert on land use planning 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 methodological guide outlining steps in ILU planning, potential barriers/problems along the way, examples of addressing such problems, annotated documents to be produced during planning, etc. This guideline will be used by stakeholders for replication.	1000	5
18	Expert on results & lessons learned of demonstration projects	The Expert on results & lessons learned will summarize results of implemented demonstration projects under Outputs 2.2-2.4, 3.5 and produce a report with key findings.	800	5
19	Consultant on financial instruments	The consultancy will be structured under Output 2.1 to formulate a formal report on what financial instrument is to be implemented, as well as details on how it will be operationalized. This report will be based on: (i) a desk-review of available literature, (ii) consultations with relevant stakeholders, and (iii) the considerations and insights of the service provider's team. The consultant will document consultations with stakeholders and support interaction with those stakeholders as partners to the financial instrument. The report on financial instruments should have the following sections: (1) executive summary, (2) financial instrument selection, (3) financial partner, (4) financial instrument design.	700	10
20	Business planning consultants for 15 regional extension centers	Business planning consultants will assist extension centers with designing sustainability business strategies for 15 regional extension centers to sustain their businesses in the long-run upon project completion	6000	5
21	Logistics expert	Logistics expert will assist KM & Outreach Specialist and Institutional Effectiveness & Capacity Dev Expert with organizing trainings & workshops, awareness raising events related to all 4 Outcomes.	300	208
22	Procurement & TechSpecifications Specialist	A separate procurement specialist will be required for complex procurement under Outcome 3 and support to the Task Leader with definition and agreement of technical specifications and technical support to the entire procurement process including bidding, competitive selection, and contracting services and goods as required by the project.	600	170
23	National Consultant for Mid-term Evaluation	See description under International consultants, but with stronger focus on local issues including the preparation of the mission (arrangements of meetings, logistics, etc.).	1990	10
24	National Consultant for Final Evaluation	See description under International consultants, but with stronger focus on local issues including the preparation of the mission (arrangements of meetings, logistics, etc.).	1990	10
	International Expertise			
25	International Consultant for Mid-term Evaluation	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	3250	6

#	Position Title	Role in the project by outputs	$ per week (Gross)	Estimated weeks
		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.		
26	International Consultant for Final Evaluation	The main task of the final evaluation team will 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.	3250	6
27	Invited lecturers/practitioners	Output 4.1. Practitioners (3) from other countries with relevant experience will be invited to provide lectures or deliver trainings	3150	2

III. Indicative list of project contractors (contractual services & companies)

Outcome/Output	Contractual services	Estimated Costs, $
Outcome 1: Integrate Land Use Management Systems		
Output 1.1:	Collection & processing of primary data for territorial landscape level planning for 3 rural okrugs	30,000
	Agroclimatic analysis & forecasts for pilot rural okrugs	6,000
	Participatory land use planning	9,000
Output 1.2:	Production of educational videos on IULP planning (videography) @250 per day for 15 days	3,000
Outcome 2: Promotion of sustainable food production practices & responsible value chains		
Output 2.5:	Design of a knowledge management web platform and associated technical support	57,600
	ToT trainings for 15 regional extension centers	38,000
Output 2.6:	Marketing firm(s) to support design, production and development of marketing materials, media campaigns to support Green Wheat platform	450,000
Outcome 3: Conservation & restoration of natural habitat		
Output 3.1:	Scientific, technical and financial feasibility study for Turkty Reservat	25,000
	Technical and financial feasibility study for for ecocorridor in Kokshetau uplands	20,000
	Participatory planning (awareness raising & knowledge creation about new PA and ecocorridor, functions, role, significance & potential among various categories of land users incl communities)	8,000
	Design of training & development programs on eco network functioning for PA staff, forestries, hunting concessions, farmers, communities, reforestation methods, etc (15 modules @ $3250 each)	50,000
	Development/Update of management plans (PAs, forestries, hunting areas)	30,000

	Update of wildlife & BD accounting systems for forestries & hunting areas	20,000
	Design of an undergraduate/graduate course on landscape level BD & wildlife conservation & management	50,000
	Works on optimizing boundaries of hunting concessions	75,000
	Pilot project: financial sustainability of hunting concession	130,000
Output 3.2	Forest restoration activities under Output 3.2 (see Annex 23 for details)	750,000
Output 3.3	Support to forest nurseries	575,000
Output 3.4:	Support to forest fire protection in 10 pilot forestries and 2 PAs	$650,000
	Forest fire protocol development	15,000
Output 3.5	Restoration of degraded lakes and wetland ecosystems (see Annex 21 for details)	$505,000
	Assessment of BD conservation risks, selection of BD indicators (species/ecosystem health), baseline and final assessment of BD status upon completion of demonstration projects. Assessment of ecosystem restoration success. BD assessment for a concession pilot	76,900
Outcome 4: KM, M&E and Coordination w/ Global FOLU IP platform		
Output 4.2:	Design of 6 modules for undergraduate/graduate courses on sustainable land & pasture management, green production	19,300
	Design of training & professional development programs on sustainable land & pasture management, crop rotation, green production, etc (15 modules @ $3250 each)	48,700
	Campaign to stimulate demand for sustainable agricultural products	20,000

Annex 11: Initial Project Procurement Plan

Presented as a separate document

Annex 12: Comprehensive Stakeholder Engagement and Communication Plan

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
Ministry of Agriculture: - Department of production and processing of crop products - Department of production and processing of livestock products - Department of Veterinary, Phytosanitary and Food Safety - Department of financial instruments and microcredits - Department of agricultural food markets, organic products and technical regulation - Department of public services development and digitalization in the agricultural sector	The MoA is the central government executive body responsible for agriculture, farming, livestock management, irrigation, seed and grain market regulation, and agricultural sciences. It develops and implements state policy and programs on agriculture including the Agribusiness 2021 program. One of the priority policy directions for the MoA is developing a system of agricultural subsidies to prevent land degradation and drive wider implementation of adaptation and resource-saving technologies in agriculture that seek to reduce greenhouse gas emissions. Of particular relevance for the project is the MoA's work on improved access to financing for green farming, capacity building and extension services for farmers, agricultural guarantees and the insurance system in the regions affected by climate change, sustainable land management and agriculture diversification in the grain-growing regions of Kazakhstan.	Outcome 1: Outputs 1.1, 1.3, Outcome 2: Outputs 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, Outcome 4: Outputs 4.1, 4.3	**Methods:** ***Engage, Communicate, Inform, Respond*** Partnerships, meetings, workshops, conferences: Initial face to face or virtual meetings with MoA's responsible staff to explain project needs and to ensure proper planning and coordination of project activities. MoA will act as an Implementing Partner for the Project. Representatives from MOA will chair the Project's Board to oversee and guide project implementation. The Ministry and its relevant departments will contribute to development of landscape-level land use plans and implementation of sustainable use alternatives in rangeland and agricultural productive landscapes. As part of its legislative function, MoA's representatives will sit on the Inter-ministerial Task Force Group to review proposed amendments or new policies, regulations and rules, to address issues related to detrimental fiscal subsidies, restructuring the insurance system to assist in crop production, and to discuss results and lessons learned from the pilot exercise on integrated land use planning in the target wheat producing rayons. Communication will be achieved through regular and	UNDP CO, PMU, Responsible party	Throughout project implementation: Regular meetings of Inter-Agency Task Force Group, 2 times a year, PB meetings, at least once a year, M&E

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
			ad-hoc Project Board (PB), Task Force Group and other official face-to-face meetings as well as through official writing. Activity reports, web-based meeting platforms, site visits: The PMU will report its progress annually in the GEF Project Implementation Reports (PIRs), at midterm and at final stage project implementation. The project's progress products will be shared with the MoA and Project Board for review & approval. The PMU will periodically organize PB meetings in the field to demonstrate the project's progress on the ground in pilot regions. Finally, the Project will respond timely to any meetings or communications upon MoA's request, as the need may arise.		
KazAgro National Holding	The KazAgro National Management Holding (NMH) JSC implements the state policy related to effective management of investment assets to prompt the development of agricultural sector. KazAgro and its subsidiaries provide financial support to agro-industry enterprises by issuing soft loans, acting as an agent for financial recovery, subsidizing interest rates on loans and leasing and providing investment subsidies, etc. ACC, in particular, implements the state policy on the development of affordable lending, stimulating the	Outcome 1: Output 1.3; Outcome 2: Outputs 2.1., 2.5, 2.6; Outcome 4: Output 4.3	**Methods: *Engage, Communicate, Inform, Respond*** Partnerships, conferences, meetings: Initial face to face or virtual meetings will be held with responsible staff to explain project needs and to ensure proper planning and coordination of project activities. KazAgro has been identified by MoA as one of the project's Responsible Parties. Formal engagement of KazAgro in project implementation will be achieved through its sitting on the PB and the Inter-Ministerial Task	Implementing Partner, PMU, UNDP CO	Yrs 2-5

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
	development of competitive entrepreneurship in rural areas.		Force. KazAgro's subsidiary, ACC will lead the Project's interventions under Output 2.1. Substantial technical engagement of ACC under this Output will be achieved by concluding a formal agreement on the framework of the subsidy program, its rules, terms, eligibility requirements, institutional arrangements, subsidy disbursement system, etc., and holding regular official offline and online meetings, related workshops and PB meetings, and designing and running the subsidy program. KazAgro National Holding and its relevant subsidiaries will sit on and participate in the WG for the Green Wheat Platform to be created and operationalized under Output 2.6 as well as in workshops and conferences related to the Platform. KazAgro's advocacy role for the Wheat Initiative Platform will be achieved through participation in domestic and international events. <u>Activity reports, web-based meeting platforms, site visits</u>: The PMU will report its progress annually in the GEF Project Implementation Reports (PIRs), at midterm and at the final stage of project implementation. The project's progress products will be shared with KazAgro and the Project		

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
			Board for review & approval. The PMU will periodically organize PB meetings in the field to demonstrate the project's progress on the ground in pilot regions. Finally, the Project will respond timely to any meetings or communications upon KazAgro's request, as the need may arise.		
National Company Food Contract Corporation (NC FCC)	NC Food Contract Corporation (FCC) manages procurement of agricultural products and commodities delivered to government reserves, implements forward procurement, contributes to the stabilization of the domestic grain market and provides export support to domestic grain producers to ensure the country's food security.	Outcome 2: Output 2.6, Outcome 4: Output 4.3	**Method: *Engage*** Partnerships, conferences, workshops: The project will partner with NC FCC in organizing an intersectoral dialogue, providing expert support for development of documents for the Wheat Initiative Platform to be established under Output 2.6. and popularize the Green Wheat Platform at domestic and international events.	Responsible Party, PMU	Yrs 2-4
KazakhExport	"KazakhExport" JSC is to support the rise in exports of non-primary goods, works, and services in priority sectors of the economy and to develop the practice of financial-insurance and non-financial support of Kazakhstan enterprises.	Outcome 2: Output 2.6	**Method: *Engage*** Partnerships, conferences, workshops: The company will support the targeted project SME and farmers help to promote at the international arena. The company will provide to those project SMEs and farmers with insurance coverage to provide for exports to CIS countries as Russia, Tajikistan, Kyrgyzstan, Uzbekistan, and Turkmenistan, which exports are due to the traditional markets for sales of the Kazakhstan processed products. Also, helps to export of Kazakhstan goods to such countries	Responsible Party, PMU	Yrs 2-5

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	**Responsibility**	
			as Italy, Germany, Lithuania, Latvia, China, USA, Switzerland, Poland, the UAE, India, Ukraine, Belarus, Turkey, Afghanistan, and Mongolia		
Committee for the Land Resources Management (LRMC) of the Ministry of Agriculture (its oblast and rayon-level branches)	At the national level, the Committee for Land Resources Management is responsible for development and implementation of state policy and programs for 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, etc., at the oblast level.	Outcome 1: Outputs 1.1,1.2, 1.3; Outcome 2: Outputs 2.5, 2.6; Outcome 3: Output 3.1,	**Method: *Engage*** Partnerships, workshops, working meetings, conferences: The Committee for the Land Resources Management, its offices in target regions in particular, will be one of the key players in development of integrated land use planning frameworks in the three-pilot rural okrugs and monitoring compliance of rural okrug stakeholders with the requirements of approved ILUPs under Output 1.1. The project will employ a participatory approach to landscape level planning to ensure substantive participation of each and every local stakeholder during planning. The Committee's oblast and rayon level representatives will contribute and participate in training on integrated land use planning, requirements and compliance, and sustainable land and livestock management practices (Outputs 1.2. and Output 2.5). The Committee's representative will sit on the inter-agency Working Group (Output 1.3) to review policies, rules and regulations on land management, results and lessons learned of the integrated land use planning exercise and of	Responsible party, PMU	Yrs 1-4

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
			demonstration projects on sustainable crop production and livestock management. The Committee will participate in the project's events related to the creation of the Green Wheat Platform, including design and distribution of "responsible wheat producer", "agribusiness man" labeling (Output 2.6). The Committee will be actively engaged in the consultative process during design and operationalization of the ecological network "Kokshetau Uplands". It will participate and be consulted at stages of defining the network's boundaries, conducting an inventory of hunting concessions in the area of the ecological network and revising the zoning arrangements at a landscape level (Output 3.1).		
Forestry and Wildlife Committee (FWC) of the Ministry of Ecology, Geology and Natural Resources	FWC is the key government institution responsible for SFM, regulating biodiversity, including the establishment and management of protected areas, hunting areas and forests. It oversees and seeks state funding for the establishment/ expansion of PAs through its regional offices,, including negotiations with local authorities and stakeholders, and preparation and justification of the relevant budgets. FWC ensures conservation and recovery of the threatened and endangered species	Outcome 1: Output 1.3 Outcome 3: all Outputs; Outcome 4: Output 4.3	**Methods:** ***Engage, Communicate, Inform, Respond*** <u>Partnerships, meetings, workshops, conferences</u>: FWC will be engaged by the Project as a co-implementor for overseeing and participating in implementation of Outcome 3 of the project as well as engaging in awareness raising & knowledge management activities under Outcome 4. FWC will be engaged in negotiations with oblast/rayon administrations and other relevant government agencies regarding zoning arrangements, the	Responsible party, PMU, UNDP CO	Throughout project implementation

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
	and that an efficient information management system is in place.		creation of new PAs and ecocorridors, as well as implementation of adaptive landscape management to ensure that the PA is managed in tandem with the management of production activities occurring in the larger landscape. FWC's supervisory role will be achieved through sitting on the PB and participating in its regular and ad-hoc meetings. <u>Activity reports, web-based meeting platforms, site visits</u>: The project's progress products (inception report, PIRs, midterm & final eval reports) will be shared with the FWC in a timely manner for feedback and subsequent approval. Engagement and communication with FWC will be also achieved through meetings of the Inter-Ministerial Task Force Group and other official face-to-face meetings, field visits, conferences and workshops as well as through official written communication. <u>Social media postings, project focal point, hotline:</u> Regular connection with FWC will be achieved through appointing a project's focal point for Outcome 3, providing the project's contact information (phone, email) and updates on project progress via social		

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	**Responsibility**	
			media (Instagram, telegram, facebook, etc.) and responding to any feedback. <u>Publications, newsletters, news coverages</u>: The FWC will be informed of the project's results through a series of thematic publications, regular project newsletters, and coverage in national, regional press and TV.		
Republican State Enterprise (RSE) "Kazhydromet" and its regional offices in Akmola, Kostanay, North Kazakhstan and Pavlodar Oblasts	Kazhydromet provides the agricultural sector with agrometeorological monitoring services and data, and makes agro-meteorological observations. Of particular relevance to the project is Kazhydromet's work on increasing agromet coverage in northern Kazakhstan and enhancing its targeted forecasting & agrometeo services.	Outcome 1: Outputs 1.1., 1.3 and 1.4; and Outcome 2: Output 2.5	**Methods: *Engage, Communicate*** <u>Partnerships, meetings, workshops</u>: Kazhydromet's partnership with the Project will be grounded in the agromet equipment baseline funding in the target oblasts of NKL and related O&M and staff costs, and provision of targeted agromet services to farms and agricultural enterprises in Kostanai and Akmola Oblasts under Output 1.4. Its active engagement will be also achieved through participation of its regional offices in the integrated land use planning meetings & workshops under Output 1.1. Kazhydromet will also train field technicians from the areas where additional agromet posts will be installed and will participate in the design of training modules for the farmers' extension system under Output 2.5.	Responsible party, PMU	Yrs 1-3

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	**Responsibility**	
			Activity reports, web-based meeting platforms, site visits: Kazhydromet's representative will sit on the PB and the be involved in the project's progress products (inception report, PIRs, midterm & final eval reports) which will be shared with Kazhydromet in a timely manner for feedback and subsequent approval. Engagement and communication of Kazhydromet will be also achieved through meetings of the Inter-Ministerial Task Force Group and other official face-to-face meetings, field visits, conferences and workshops as well as through official written communications.		
River Basin Organizations (RBOs) of the Water Resources Committee of the Ministry of Ecology, Geology and Natural Resources of RK	The Water Resources Committee and its territorial organizations – Irtysh, Ishim, Nura-Sarysu and Tobol-Turgai 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.	Outcome 1: Outputs 1.1, 1.3; Outcome 3: Outputs 3.1, 3.5	**Method: *Engage*** Partnerships, meetings, workshops: The Committee, and particularly its four territorial RBOs, will be engaged in participatory landscape-level planning through designated meetings and workshops in target rural okrugs, by specifically contributing to discussions on water use efficiency in agriculture (Output 1.1). The Committee's engagement in project oversight will be achieved by sitting on the PB and the inter-agency Task Force Group (Output 1.3). The project will ensure the RBOs participation in stakeholder consultations for the creation of the Kokshetau Uplands eco-network, particularly new PAs and ecocorridors	Responsible party, PMU	Yrs 1-5

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
			(Output 3.1). Some level of engagement of the Committee will be expected in the implementation of demonstration projects under Output 3.5 which includes restoring productivity and ecosystem services of degraded lakes and wetlands.		
National Agrarian Science and Educational Center (NASEC)	NASEC serves as a sole operator of supporting the interaction between agricultural research institutions, government departments and agricultural companies and farms.	Outcome 1: Output 1.3; Outcome 2: Outputs 2.5, 2.6; Outcome 4: Outputs 4.1, 4.3	**Method: *Engage, Communicate*** Partnerships, meetings, workshops, conferences: NASEC has been identified by MoA as the project's key Responsible Party. NASEC's representatives will sit on the PB and are expected to participate in thematically related meetings of the inter-agency Working Group (Output 1.3) Jointly with the National Chamber of Entrepreneurs (Atameken), NASEC will lead the review and upgrade of the farmer's support system in the country mainly through identification of regional partners for the extension system and strengthening their capacities, provision of information and consultation services to farmers, development of a unified web platform that will be used by extension centers for more efficient provision of services and monitoring of their work (Output 2.5) and serve as a connecting element of the National Experience Exchange Network to be established under Output 4.1. The Center will benefit from the project's training programs	PMU, UNDP CO	Throughout project implementation

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
			related to economically effective and sustainable agricultural practices, effective online and offline methods for educating and training farmers and development of its sustainability strategy in the long run. Activity reports, web-based meeting platforms, site visits: The project's progress products (inception report, PIRs, midterm & final eval reports) will be shared with NASEC in a timely manner for feedback and subsequent approval. Engagement of, and communication with, NASEC will be also achieved through official face-to-face meetings, field visits, conferences and workshops as well as through official written communication.		
Analytical Center of Economic Policy in the Agricultural Sector (ACEPAS)	ACEPAS conducts research and analytical work related to agriculture economics and it focuses on development of the agricultural sector through provision of high-quality information and analytical products.	Outcome 1: Output 1.3; Outcome 2: Output 2.1	**Method: *Engage*** Partnerships, research collaboration, meetings, conferences: Partnership and collaboration research with the Center will be built around its key staff competences and professional interests related to agricultural subsidies and design of agro-environmental schemes under Output 2.1. In particular, ACEPAS will be engaged in reviewing existing subsidy policies under Agrobusiness 2021, analysing results (economic & environmental) and effectiveness of demonstration projects, interviewing	Responsible party, PMU	Yrs 1-5

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
			farmers (including women led farms) in target regions and getting their views and perceptions on existing subsidies and drafting recommendations on how existing policy options can be amended to support agricultural producers in switching to more sustainable and environmentally friendly land use practices. Its representative will sit on the Project Board and the inter-agency Task Force Group to review subsidy proposals of target oblast akimats (Output 1.3). Engagement of ACEPAS will also be achieved through its participation in project-related communication and awareness raising events, workshops and conferences.		
National Chamber of Entrepreneurs Atameken/ Center of Agrarian Competence (CAC)	National Chamber of Entrepreneurs (NCE) Atameken is a non-profit organization representing the interests of small, medium and large businesses, covering all business areas, including internal and external trade. Of relevance to the project, Atameken actively participates in government programs of support and development of local entrepreneurship, promotes development of domestic industries and businesses, including those in agriculture. It has an extension subsidiary, called the Center of Agrarian Competence that delivers training covering different aspects of farming business, provides retraining,	Outcome 1: Output 1.3; Outcome 2: Outputs 2.5 and 2.6, Outcome 4: Output 4.1	**Method: *Engage, Communicate*** Partnerships, meetings, conferences, workshops: NCE Atameken's engagement in promoting sustainable farming businesses in target regions will be achieved through its seat on the inter-agency Working Group and participating in its meetings and discussions (Output 1.3). Atameken and the Center—with its expertise and closeness to the business community—will contribute to the review and upgrading of the farmer's support system in the NKL region mainly through identification of regional partners for the extension	Responsible party, PMU	Yrs 1-5

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
	qualification upgrades, certification and attestation of personnel, and develops technical and vocational education. For several years, up until 2020, the Center implemented the Republican Budget Program "Providing information and consulting services at no cost to the agribusiness entities", and was serving as the key agent for the delivery of thematic on-farm training and lectures to farmers under the national extension and information sharing system.		system and strengthening their capacities, provision of information and consultation services to farmers, development of a unified web platform that will be used by extension centers for more efficient provision of services and monitoring of their work (Output 2.5) and serving as a connecting element of the National Experience Exchange Network to be established under Output 4.1. The Center will benefit from the project's training programs and workshops related to economically effective and sustainable agricultural practices, effective online and offline methods for educating and training farmers and development of its sustainability strategy in the long run. Partnership with Atameken will be crucial for the design and creation of the Green Wheat Platform Initiative (Output 2.6). Of particular importance will be the Chamber's engagement and lead of an intersectoral dialogue considering its mandate and interests as well as the Chamber's technical support in development of the Platform-relevant documents. Considering its regional presence, Atameken will provide a platform for regional and national stakeholders to discuss the Green Wheat Platform concept, its guiding principles, participation, activities, etc. With Atameken's support, participation of		

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	**Responsibility**	
			women-led agribusinesses will be facilitated at regional and national stakeholder consultations to ensure that their views and interests will be reflected in the GW Platform's documents. Web-based meeting platforms, site visits: Engagement of, and communication with, Atameken will be also achieved through official face-to-face meetings, field visits, conferences and workshops as well as through official written communication.		
Akimats of Akmola, Kostanai, North Kazakhstan and Pavlodar Oblasts	*Oblast akimats* represent the executive branch of the government and are in charge of promoting government polices (including agricultural) at the local level considering the specifics of each region (i.e. region-specific policies and programs). Regional akimats are among the key beneficiaries of the project's integrated landscape-level planning exercise.	Outcome 1: Outputs 1.1., 1.2; Outcome 2: Outputs 2.1, 2.2.-2.4, 2.5; Outcome 3: Output 3.1; Outcome 4: Output 4.1	**Methods: *Engage, Communicate, Inform*** Partnerships, meetings, conferences, workshops, site visits: Target Oblast akimats will grant official endorsement of pilot land use planning frameworks and LDN demonstration projects, facilitate cooperation of all involved parties in implementation of land use planning schemes and demonstration projects under Outputs 1.1, 2.2.-2.4. Akimats will assist with development of proposals for agro-environmental subsidies (Output 2.1) and, if needed, will attend meetings of the inter-agency Working Group to present and discuss subsidy or any other relevant issues. Representatives of Akimats will be actively consulted by the	Responsible Party, PMU	Yrs 1-5

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
			Project during design and operationalization of the eco-network "Kokshetau Uplands" (Output 3.1) including the creation of PAs of regional or local importance and ecological corridors for biodiversity conservation. Oblast Akimats will grant official endorsement of land use projects for PAs of local importance and allocate land for the planned PAs. Oblast akimats will as well be beneficiaries of the project's generated results and lessons learned from piloting ILUPs, demonstrating sustainable land use practices, effective agro-environmental schemes and will advocate for their replication throughout their respective oblasts, and will provide regional representation for the national extension system and the National Experience Exchange Network (Outputs 2.5 and 4.1). <u>Social media postings, project focal point, hotline:</u> Regular connection with the Oblast Akimats will be achieved through appointing a project's focal point for Outcome 1, providing the project's contact information (phone, email) and updates on project progress via social media (Instagram, telegram, facebook, etc.).		

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	**Responsibility**	
			Publications, newsletters, news coverages: Regional akimats will be informed of the project's results through a series of thematic publications, regular project newsletters, and coverage in national, regional press and TV.		
Akimats of Naurzum rayon of Kostanay Oblast, Mamlyutskiy rayon of North Kazakhstan Oblast and Birzhansalkskiy rayon of Akmola Oblast Akimats of Karamendinskiy rural okrug, Belovskiy rural okrug and Makinskiy rural okrug	*Rayon (district) and rural okrug akimats* represent lower levels of the government's executive branch. They implement policies and programs adopted at the oblast level.	Outcome 1: Outputs 1.1, 1.2; Outcome 2: Outputs 2.1, 2.2-2.4; Outcome 3: Output 3.1; Outcome 4: Output 4.1	**Methods: *Engage, Communicate, Inform*** Partnerships, meetings, conferences, workshops, site visits: Local akimats will be actively engaged through the use of participatory methods in development and implementation of the landscape-level land use plans by facilitating participation of key local stakeholders including women-led farms, local women's groups, etc., coordinating inputs of all stakeholders under Output 1.1, and seeking approval of oblast akimats and rayon level maslikhats. The akimat representatives will benefit from the project's designed training programs on integrated land use planning and management, zoning, monitoring, etc. Akimats will assist with development of proposals for agro-environmental subsidies (Output 2.1.). Akimats will co-finance demonstration projects under Outputs 2.2 - 2.4 in selected rural okrugs related to sustainable land	Responsible party, PMU	Yrs 1-5

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
			and pasture management, and restoration of degraded lakes & wetlands. In particular, the district akimats will provide subsidies for the purchase of agricultural equipment/machinery and elite seeds to complement GEF financing. The akimat representatives will be actively consulted during design and operationalization of the eco-network "Kokshetau Uplands" and will assist in community mobilization and awareness activities (Output 3.1). Rayon and rural okrug akimats will benefit directly from the project's landscape-level land use planning exercise and implementation of demonstration projects, will disseminate the project generated results and lessons learned, and advocate for their replication throughout respective districts and rural okrugs. If needed, the representatives of rayon or rural okrug akimats will attend meetings of the inter-agency Working Group to present and discuss any issues related to their on-the-groundwork on integrated land use planning and implementation. <u>Social media postings, project focal point, hotline:</u> Regular connection with rayon and rural okrug akimats will be achieved through appointing a project focal		

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	**Responsibility**	
			point for Outcome 1, providing the project's contact information (phone, email) and updates on project progress via social media (Instagram, telegram, facebook, etc.). <u>Publications, newsletters, news coverages</u>: Regional akimats will be informed of the project's results through a series of thematic publications, regular project newsletters, and coverage in national, regional press and TV.		
Forestry Administrations of the target areas	Forestry management units are state funded legal entities operating under the regional administrations focusing on management of the forest fund lands outside the protected areas system. The project will focus on improving the capacity of the forestry management units within the boundaries of the project sites.	Outcome 1: Outputs 1.1, 1.2, Outcome 2: Output 2.4; Outcome 3: Outputs 3.1, 3.2, 3.3, 3.4	**Methods: *Engage, Communicate, Inform*** <u>Partnerships, research collaboration, meetings, conferences, workshops:</u> Some forestry management units in the target areas will be participants in the integrated land use planning exercise (Output 1.1) and demonstration projects under Output 2.4 on silvicultural pasture management. Forestry management units will be among the key project beneficiaries for "hardware" and "software" technical support under Outputs 3.1, 3.2 and 3.3. Forestry management units will be engaged and consulted at the design stage of the Eco-network "Kokshetau Uplands" particularly as related to identification of areas containing HCVFs to be included in the proposed	Responsible party, PMU	Yrs 2-5

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
			eco-network, wildlife and biodiversity reporting and zoning arrangements at a landscape level. Forestry management units in the target areas will be engaged in the update of their management plans related to eco-network functioning and its requirements, forest fire prevention and control. Some forestry management units in the target areas of NKL will benefit from the upgraded infrastructure, i.e. fire control and prevention equipment, fire control stations and towers, forest nurseries for restocking harvested or degraded areas, and creating snow & wind breaks at farm fields. Targeted forestry management units will be directly engaged in restoration and reforestation activities of HCVFs including degraded birch-aspen (kolki) forests. Forestry management unit staff will benefit from the project's capacity building training on management of HCVFs, effective logging methods for broad-leaved trees, reforestation, biological protection to control pests and forest diseases, effective fire prevention and control measures, community education, awareness raising and engagement in fire prevention. <u>Social media postings, project focal point, hotline:</u>		

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	**Responsibility**	
			Regular connection with forestry management units will be achieved through appointing a project's focal point for Outcome 3, providing the project's contact information (phone, email) and updates on project progress and highlights via social media (Instagram, telegram, facebook, etc.). <u>Publications, newsletters, news coverages</u>: Forestry management units will be informed of the project's results through a series of thematic publications, regular project newsletters, and coverage in national, regional press and TV.		
Specially Protected Nature Areas: Kokshetau and Burabai State National Nature Parks Nauruzum State Nature Reserve Vostochniy and Bulandinskiy State Nature Zakazniks Tukty State Nature Reservat (perspective)	The listed SPAs serve as key agents for biodiversity conservation and habitat protection helping to maintain ecological processes in the intensely managed NKL landscape. These PAs are the key beneficiaries of activities for maintaining the Kokshetau Uplands econetwork including protected area expansion, and strengthening of their management effectiveness in dealing with multiple stakeholders in the NKL mosaic landscape.	Outcome 1: Output 1.1; Outcome 3: Outputs 3.1.,3.5, 3.6 Outcome 4: Output 4.3	**Methods: *Engage, Communicate, Inform*** <u>Partnerships, research collaboration, meetings, conferences, workshops:</u> The listed protected areas in the target area representing the core conservation areas of the proposed ecological network "Kokshetau Uplands" will be engaged by the project through partnership and research collaboration under Output 3.1.. In particular, existing PAs will be actively consulted at the eco-network design stage assisting for identifying valuable areas for biodiversity conservation, defining eco-corridor boundaries, engagement of local communities through its PA Public	Responsible party, PMU	Yrs 1-5

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
			Councils and participatory consultations. The listed PAs will help coordinate negotiations with oblast / rayon administrations and other relevant government agencies regarding zoning arrangements and the creation of buffer zones and corridors, as well as adaptive landscape management to ensure that PAs and ecocorridors are managed in tandem with the management of production activities occurring in the larger landscape. All the PAs will benefit from the project's capacity building on PA management, awareness raising and communications with local communities including farmers (Outputs 3.1, 4.3), and fire prevention and control measures in fire prone areas (Output 3.4). The Nauruzum State Nature Reserve will benefit from the upgraded fire control and prevention infrastructure and equipment, and tested methods for restoration of degraded lakes and wetlands (Outputs 3.4, 3.5). Some PAs in the target areas will be engaged in consultations during the integrated land use planning exercise (Output 1.1) <u>Social media postings, project focal point, hotline:</u> Regular connection with PAs will be achieved through appointing a project's focal point for Outcome 3,		

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
			providing the project's contact information (phone, email) and updates on project progress and highlights via social media (Instagram, telegram, facebook, etc.). Publications, newsletters, news coverages: PAs will be informed of the project's results through a series of thematic publications, regular project newsletters, and coverage in national, regional press and TV.		
Agricultural producers, farms: EN DALA LLP Ayam-7 LLP Tselina Agro LLP Yershovskoe-2 LLP Beibars Agro LLP Bolshemalyshenskoye LLP Kyzyl Agro LLP Danilovskoye LLP Capital LLP Koshkodan Farm and others	The listed agricultural farms will serve as key agents for demonstration projects under Outputs 2.2-2.4. These farmers expressed their willingness to be partners and provide co-financing for demonstrating diversification and improved management of productive crops, the use of sustainable perennial crop systems as diversification from unsustainable production of wheat and other crops, and sustainable livestock and pasture management.	Outcome 1: Output 1.1; Outcome 2: Output 2.1, Outputs 2.2.-2.4; Output 2.5; Outcome 3: Output 3.5 Outcome 4: Output 4.1	**Methods:** ***Engage, Communicate, Inform*** Partnerships, research collaboration, meetings, conferences, workshops: The listed farmers are direct beneficiaries and project key partners for Outputs 2.2.-2.4 under Outcome 2 which call for demonstrating sustainable farming and livestock management approaches in the NKL. Some will be actively engaged and consulted regarding land use planning development in the respective rural okrugs under Output 1.1. This engagement will be through a serious of stakeholder consultation meetings. Partnership with listed farmers will be achieved through joint implementation of demonstration projects, with them contributing labor, machinery, equipment and their own financial resources. The project will facilitate engagement of	Responsible party, PMU	Yrs 1-4

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
			famers (through survey/questionnaire) in the review of existing subsidies and the design of the subsidy program under Output 2.1. The project will ensure, through participatory consultations, the gender-sensitive analysis that views of women-led farms and groups will be heard and incorporated into the design of the subsidy program, regional extension system (Output 2.5) and the National Experience Exchange Network (Output 4.1). Farmers from target areas will also be key to regional dialogues (conferences, workshops, meetings) on the Green Wheat Platform Initiative under Output 2.6. Some agricultural farms will participate as partners and co-financiers for lake restoration works under Output 3.5. <u>Social media postings, project focal point, hotline, field visits:</u> Regular connection with farmers will be achieved through appointing a project focal point for Outcome 2, providing the project's contact information (phone, email), field visits and updates on project progress and highlights via social media (Instagram, telegram, facebook, etc.). <u>Publications, newsletters, news coverages</u>: Farmers will be informed of the project's results through a		

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
			series of thematic publications, regular project newsletters, and coverage in national, regional press and TV.		
Agricultural Experimentation Station "Zarechnoe"	"AES "Zarechnoye" LLP is an elite seed-growing farm owning about 30,000 hectares of farmland in the Kostanai Oblast, of which 15,000 hectares are used for sowing grain, leguminous crops and oilseeds. AES Zarechnoe provides scientific support to agribusiness entities in crop production and animal husbandry and produces elite seeds of agricultural crops.	Outcome 1: Output 1.1; Outcome 2: Outputs 2.1, 2.2., 2.3, 2.4, 2.5	**Methods: *Engage*** Partnerships, meetings, conferences, workshops: The staff of AES Zarechnoe will be engaged through direct support for implementation of demonstration projects in Kostanai Oblast in particular under Outputs 2.2., 2.3 and 2.4 making positive use of its interest and relevant expertise. Through participation in consultation meetings and workshops, AES Zarechnoe will contribute to the land use planning exercise in the pilot rural okrug of Kostanai Oblast (Output 1.1), review and design of government policies and subsidies under Output 2.1, particularly as they relate to elite seed production.	Responsible party, PMU	Yrs 2-4
Hunting and Fishing entities	Hunting and Fishing managers are responsible for game species and Red List species monitoring within their respective sites; interests of hunting entities relate to the sustainability of game populations in hunting areas and neighboring territories.	Outcome 1: Output 1.1; Outcome 3: Output 3.1; Outcome 4: Output 4.3	**Methods: *Engage, Communicate, Inform*** Partnerships, conferences, workshops: Hunting and fishing entities, being key repositories of ecological information on biodiversity, land resources, wildlife, and habitats outside the Protected Area System (PAS), will be engaged by the project to contribute to the development and implementation of the landscape-	Responsible party, PMU	Yrs 1-5

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
			level land use plans (Output 1.1), and design and operationalization of the eco-corridor in the eco-network "Kokshetau Uplands" (Output 3.1). Hunting concessions in the area of the proposed eco-network will be participants of an inventory exercise aimed at revising the zoning arrangements on a landscape level and optimizing lands of hunting areas to align with the conservation objectives of the eco-network "Kokshetau Uplands". The project will engage (via establishment of close partnership, face-to-face contact, virtual consultations, collaboration) with a pilot hunting entity in the Kokshetau Uplands to demonstrate innovative sustainable methods for managing a hunting area. Hunting and fishing entities will gain from the project's capacity building training on complying with the requirements for eco-corridor and protection of valuable steppe, meadow and forest steppe habitats within the proposed eco-network "Kokshetau Uplands" as well as other awareness raising events under Output 4.3. Hunting and fishing managers will play a key role in patrolling, monitoring and protecting the biodiversity of the ecological corridor. <u>Social media postings, project focal point, hotline, field visits:</u>		

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	**Responsibility**	
			Regular connection with hunting & fishing entities will be achieved through appointing a project's focal point for Outcome 3, providing the project's contact information (phone, email), field visits and updates on project progress and highlights via social media (Instagram, telegram, facebook, etc.). Publications, newsletters, news coverages: Hunting & fishing entities will be informed of the project's results through a series of thematic publications, regular project newsletters, and coverage in national, regional press and TV.		
Magnum Cash & Carry (Retail company)	Magnum Cash & Carry is the largest, retail company No. 1 in Kazakhstan. The company was established in 2007 and today it occupies a leading position in the retail market of Kazakhstan, providing customers with quality products. The company has its retail networks in 36 shopping centers in Almaty, Astana, Karaganda, Shymkent, Taldykorgan and Petropavlovsk.	Outcome 2: Outputs 2.5, 2.6	**Method: *Engage*** Partnerships, meetings, conferences, workshops: The company agreed to provide a set of actions aimed at promoting target project farms with a product and service that affects the economic diversification and cropping management of the target farms. Support the farmers at the project sites with development of quality and quantity product production with the maximum economic benefit for the project targeted farms. Help out the target farms with the product labeling in accordance with the legislation of the Republic of Kazakhstan and international standards.	Responsible party, PMU	Yrs 3-5

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
Supermarket SMALL (Retail company)	SMALL & Skif is the largest developing trade and retail network in Kazakhstan	Outcome 2: Output 2.6	**Method: *Engage*** Partnerships, meetings, conferences, workshops: The company has agreed to establishing common standards and increasing the effectiveness and efficiency of the entire supply chain of goods with the project stakeholders and targeted regional farms	Responsible party, PMU	Yrs 3-5
Trading Company "Tamasha"	The largest exporter and retailer company in Kazakhstan on grain and oil products	Outcome 2: Output 2.6	**Method: *Engage*** Partnerships, meetings, conferences, workshops: The company is expected to help out the target farms with the product labeling in accordance with the requirement of the EU, USDA, Saudi Arabia and etc. including services for transportation, storage and expert of commodities	Responsible party, PMU	Yrs 3-5
AUCHAN Retail Central Asia	AUCHAN Retail Central Asia is a subsidiary of Auchan Retail (part of Auchan Holding) and large retail chain operating in the market since 2002. The company has been recognized as the "Best Retail Employer" three times. In 2012, 2014, 2016, 2017 and 2018	Outcome 2: Output 2.6	**Method: *Engage*** Partnerships, meetings, conferences, workshops: The company is committed to support up to 200 producers and SMEs within the project target areas to get international quality certificates in the field of production and sale of food and non-food products, as well as a quality certificate of the environmental management system	Responsible party, PMU	Yrs 3-5

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
«Kaz-Ir Agro» LLP	The largest oil and grain processing medium size company. At the moment, the company owns its own oil shop, a bakery (equipped for storage and processing of grain and oilseeds) and agricultural machinery. The company also owns 45,000 hectares of cultivated land intended for growing crops.	Outcome 2: Outputs 2.5, 2.6 Outcome 4: Output 4.1	**Method: *Engage*** Partnerships, meetings, conferences, workshops: The company will provide extension and value chain services for the target farms with oil crop production under a long term contract, production of enriched forage crops for livestock sector and processing of oil crops including its trade and sale. The company has its own carriage and logistic services as well as provides support for the organization o the organic sites and production of organic fertilizers.	Responsible party, PMU	Yrs 2-5
Kaz GRAIN Pool LLP	«Grain Pool» is a part of the Grain Union of Kazakhstan. The company is headquartered in Ust-Kamenogorsk and has branches in Kokshetau and Kostanay. Kaz GRAIN Pool LLP carries out the purchase and sale of large quantities of grain crops and oilseeds. Today Grain Pool is one of the largest suppliers of grain in Kazakhstan and Central Asian countries. One of the largest processing and logistic company on grain and oil crops with steady geographic coverage beyond Kazakhstan such as Netherlands, Mongolia, China, Afghanistan, Uzbekistan, Turkey, Ukraine, Latvia, Azerbaijan, Tunisia, Egypt, Russia, Kyrgyzstan and Belarus.	Outcome 2: Outputs 2.5, 2.6 Outcome 4: Output 4.1	**Method: *Engage*** Partnerships, meetings, conferences, workshops: The company will support the project targeted farms with the practices to improve grain for the production of high-grade flour and noodle products, as well as grain for fattening livestock and etc	Responsible party, PMU	Yrs 2-5

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
LOGOS Grain LLP	A holder of the several elevators, grain storage, and farming industries for production of oil and grain crops.	Outcome 2: Outputs 2.5, 2.6 Outcome 4: Output 4.1	**Method: *Engage*** Partnerships, meetings, conferences, workshops, exchange visits: The company will help the project target farmers with knowledge of value chain within the Central Asian regions on grain trade. Experiment new practices for the grain washing, drying and export. The company is also growing grain and vegetable crops, and support forage production initiatives within the project.	Responsible party, PMU	Yrs 2-5
Farmer Associations, Unions & Groups: Association of Organic Farming Union of Crop Farmers (*Soyuz Polevodov*) Farmers Union of Kazakhstan Agrarian Union of Women of Kazakhstan Qazaqstan Organic Producer Union Kazakh Federation of Organic Agriculture Movements (KazFOAM) Rural farmer cooperatives and others	Farmers' Associations, Unions & Groups represent various farmers' interests to ensure their participation in the formulation and implementation of "green", organic policies, communication of farmers' views & interests, collective protection of their rights, integration of farmers into markets, and provision of professional support.	Outcome 1: Outputs 1.1, 1.3; Outcome 2: Outputs 2.1, 2.2-2.3, 2.5, 2.6; Outcome 4: all Outputs	**Methods: *Engage, Communicate, Inform*** Partnerships, conferences, workshops: The listed farmer associations, unions and groups will be engaged by the project via participatory consultations, meetings, and workshops in development of integrated land use plans in target rural districts under Output 1.1. Members of the Association of Organic Farming and the Union of Crop Farmers (*Soyuz Polevodov*) will coordinate implementation demonstration projects (Outputs 2.2-2.3) in Akmola, Kostanai and North Kazakhstan Oblasts and participate in capacity building training under Output 2.5. All unions and associations will participate in the subsidy review exercise through meetings and a survey (Output 2.1),	Responsible party, PMU	Yrs 1-5

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
			will develop their proposals for subsidies to be reviewed by the inter-ministerial Task Force Group and, if needed, will participate in its meetings of thematic relevance (Output 1.3). *Soyuz Polevodov* will be an important stakeholder for Output 2.6 on design and operationalization of the Green Wheat Platform Initiative and will potentially become an administrator of the Platform upon project closure. All members of unions and associations will benefit from their participation in the National Experience Exchange Network as well as other awareness raising and advocacy activities of the project under Outcome 4. Partnership with KazFOAM will be realized through a campaign to incentivize demand for sustainable agricultural products by producing a series of animated films (at least four, from one to three minutes each) on sustainable production (Output 4.3). <u>Social media postings, project focal point, hotline, field visits:</u> Regular connection with farmers' unions and associations will be achieved through designated project focal points in pilot regions, project's contact information (phone, email), field visits, updates on project progress and highlights via social media (Instagram, telegram, facebook, etc.).		

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
			Publications, newsletters, news coverages: Farmers' unions and associations will be informed of the project's results through a series of thematic publications, regular project newsletters, and coverage in national, regional press and TV.		
Agrarian Union of Women of Kazakhstan	The Agrarian Union of Women (AUW) of Kazakhstan is the lead national organization focusing on support to rural women, engagement of women in local government and self-government, assistance in increasing productive employment and self-employment of rural women	Outcome 1: Outputs 1.1, 1.2, 1.3; Outcome 2: Outputs 2.1, 2.5, 2.6; Outcome 4: Outputs 4.1, 4.3	**Methods:** ***Engage, Communicate, Inform*** Partnerships, meetings, conferences, workshops: The project will engage members of AUW in regional consultations & meetings in three rural okrugs on integrated land use planning to ensure that the views of rural women are reflected in the pilot ILUPs (Output 1.1) as well as in capacity building workshops & seminars on landscape level planning & management (Output 1.2). A representative of AUW will participate in the Inter-Ministerial Task Force meetings to reflect rural women's interests & views in agricultural policies. AUW will be consulted by the project through meetings and a survey on existing agricultural subsidies and the design of the subsidy program under Output 2.1. AUW will promote rural women's education on green business development (Output 2.5) and integration of women-headed households and small farms into	Responsible party, PMU	Yrs 1-5

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
			cooperatives for better representation of their interests and improved access to markets (Output 2.6). AUW will be the lead organization for presenting the project results and share experiences as part of the National Experience Exchange Network (Output 4.1). Communication with AUW will be also achieved through various awareness raising and capacity building project events under Output 4.3. <u>Social media postings, project focal point, hotline, monitoring visits:</u> Regular connection with AUW and its members will be achieved through designated project focal points in target regions under Outcome 4, project's contact information (phone, email), updates on project progress and highlights via social media (Instagram, telegram, facebook, etc.). The project will ensure that representatives of AUW will participate in monitoring & evaluation of project results. <u>Publications, newsletters, news coverages</u>: AUW and its members will be informed of the project's results through a series of thematic publications (e.g. brochure on women's entrepreneurship and food production), regular project		

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
			newsletters, and coverage in national, regional press and TV.		
Academic institutions: Kazakh Agrotechnical University named after S.Seifullin (Nur-Sultan), Kostanay State University named after Baitursynov incl. Digital Hub "Parasat", Pavlodar State University named after S. Toraigyrov North Kazakhstan State University named after M. Kozybaev Kokshetau State University named after Sh. Ualikhanov Higher Technical College (Shchuchinsk, Akmola Oblast)	These universities and the college are multidisciplinary academic institutions representing educational, scientific and cultural centres for innovation and for advancing competence in agricultural, economic and social development in the northern region of Kazakhstan. Their interests lie in enhancing students' competences, advancing academic curricula on land & natural resources use and management, and providing for on-farm practice for students	Outcome 2: Outputs 2.2-2.4; Outcome 3: Outputs 3.2, 3.5; Outcome 4: Outputs 4.2	**Methods: *Engage, Communicate, Inform*** <u>Partnerships, meetings, conferences, workshops</u> These educational universities and the college will be engaged in the project's work on design and incorporation of project related thematic educational modules into the existing higher education curricula (Output 4.2). The staff and students of these educational institutions will benefit from visits to the project's demonstration sites to observe the application of environmentally friendly land use practices at farms (Outputs 2.2-2.4) and methods for restoration of degraded forests, wetlands and lakes (Outputs 3.2, 3.5). The universities will contribute to development of a methodology for post-graduate on-farm training programs for students of the agricultural departments and will liaise with key agricultural producers at target landscapes to be potential hosts of the program. <u>Social media postings, project focal point, hotline:</u> Communication with academic institutions will be achieved through designated project focal points in	Responsible party, PMU	Yrs 3-5

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	**Responsibility**	
			pilot regions under Outcome 4, project's contact information (phone, email), updates on project progress and highlights via social media (Instagram, telegram, facebook, etc.). Publications, newsletters, news coverages: Academic institutions will be informed of the project's results through a series of thematic publications, regular project newsletters, and coverage in national, regional press and TV.		
Kazakh Research Institute of Livestock Breeding and Fodder Production	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. They have interests related to the health and sustainability of national livestock populations.	Outcome 2: Output 2.4	**Method: *Engage*** Partnerships, meetings, monitoring visits: The Institute will be engaged by the project to guide participants of demonstration projects on sustainable forage and seed production, and livestock & pasture management (Output 2.4). It will monitor implementation of demonstration projects while providing expert advice as needed and will monitor results and achievement of performance indicators of demonstration projects.	Responsible party, PMU	Yrs 2-5
KazNIILHA	This Research Institute has vast experience in conducting forest research, producing recommendations and methodologies for forest restoration & management in different climatic zones of Kazakhstan, and in	Outcome 3: Outputs 3.1, 3.2	**Method: *Engage*** Partnership, research collaboration, meetings, workshops: The project will collaborate with KazNIILHA on scientific and economic studies of soaking birch-aspen stands, field-protecting belts and floodplain	Responsible party, PMU	Yrs 1-4

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	Responsibility	
	practical implementation of research findings.		forests in the NKL landscape resulting in a set of recommendations for planning mitigation and disease control measures for restoration of degraded forests. KazNIILHA will be engaged by the project as the key agent for guiding participating forest units in restoration of HCVFs and degraded forests (Output 3.2). KazNIILHA will be engaged in training of 360 forestry specialists, and specially protected areas staff, on sustainable methods of broad-leaved tree logging, reforestation and restoration, and biological protection of forests to from pests and diseases (Output 3.2). Communication with KazNIILHA will be achieved through its participation in various project meetings, conferences and workshops under Outcome 3.		
Institute of Geography	The Institute has vast experience in producing data maps for landscape planning and management.	Outcome 1: Output 1.1	**Method: *Engage*** Partnerships, meetings: Considering the vast and complicated areas for landscape planning, this Institute will be engaged by the project via face to face and virtual meetings and a formal partnership to contribute GIS spatial planning & functional zoning.	Responsible party, PMU	Yrs 1-2
State enterprise "Science & Production Center on Land Resources Management"	The institutional mandate of this State Enterprise relates to technical inputs for management and planning of land resources, including pasture management.	Outcome 2: Output 2.4	**Method: *Engage*** Partnerships, meetings, monitoring visits: This State Enterprise will be engaged to support project activities related to	Responsible party, PMU	Yrs 2-5

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	**Responsibility**	
			implementation & monitoring of demonstration projects on sustainable land and pasture management as well as in monitoring land use indicators at project sites		
Local industries and entrepreneurs	Various interests related to the planned project activities in targeted project areas will be involved,for example, as their participation relates to green production and eco-tourism.	Outcome 1: Output 1.1; Outcome 3: Outputs 3.1, 3.3, 3.5; Outcome 4: Outputs 4.1, 4.3	**Method: *Engage & Communicate*** Partnerships, meetings, workshops, conferences seminars: The project will engage this group of stakeholders for development of the landscape-level management plans (Output 1.1), design & operationalization of the ecocorridors (Output 3.1), a forest nursery (Output 3.3) and implementation of lake restoration works (Output 3.5) via participatory & gender-sensitive consultations, meetings and workshops to secure their views & inputs as well as through direct partnership and engagement in implementation of several demonstration activities. Representation of this group's interests will also be achieved through participation in various project meetings, workshops, conferences as well as in the National Experience Exchange Network (Outputs 4.1, 4.3). Social media postings, project focal point, hotline: Communication with local industries and entrepreneurs will be achieved	Responsible party, PMU	Yrs 1-5

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	**Responsibility**	
			through designated project focal points in pilot regions, project's contact information (phone, email), updates on project progress and highlights via social media (Instagram, telegram, facebook, etc.).		
Rural consumer cooperatives, country farms, individual farmers, local communities	These are community members, representatives of farmers and other groups of resource users in the NKL whose livelihoods are intertwined with sustainability of land, water & forest resources planning & management; in some instances, they are responsible for managing forest and land resources at the local level in targeted project areas.	Outcome 1: Outputs 1.1, 1.2; Outcome 2: Outputs 2.2-2.4); Outcome 3: Outputs 3.1, 3.2, 3.4, 3.5; Outcome 4: Output 4.3	**Methods: *Engage, Communicate & Inform*** <u>Consultations, meetings, workshops</u>: As representatives of local communities, farmers and other groups of resource users at project sites they will be actively engaged via participatory gender-sensitive consultations in integrated land use planning in three target rural okrugs and associated capacity building (Outputs 1.1-1.2) and design and creation of the eco-network "Kokshetau Uplands" through extensive public consultations and capacity building activities (Output 3.1). Local communities at target demonstration sites (Outputs 2.2-2.4, 3.2 and 3.5) will be active observers and participants of experience sharing exchange visits. Community members at target sites under Output 3.4 will be engaged in fire prevention measures, rules of conduct in case of fires, etc. Local communities will benefit from the project's awareness raising and advocacy activities (Output 4.3)	Responsible party, PMU	Yrs 1-5

Stakeholder Group	Why Included (interests)	Relevant Project Outcomes and Outputs	Participation Methods		Timeline
			Method	**Responsibility**	
			Social media postings, project focal point, hotline: Communication with local communities and their associations will be achieved through designated project focal points in pilot regions, project's contact information (phone, email), updates on project progress and highlights via social media (Instagram, telegram, facebook, etc.). Publications, newsletters, news coverages: Local communities and their associations will be informed of the project's results through a series of thematic publications, regular project newsletters, and coverage in national, regional press and TV.		
German-Kazakh Agricultural Policy Dialogue (APD Kazakhstan) Project funded by the German Ministry of Food and Agriculture (BMEL) and implemented by GFA Consulting Group, 2020-2022	This project aims at improving the legal and institutional frameworks for sustainable development of Kazakhstan's agricultural sector. It renders technical advice on agricultural law and agricultural policy issues incl. agricultural financing & trade, organic farming, agribusiness, cooperatives, and agricultural policy and analysis.	Outcome 2: Output 2.5; Outcome 4: Output 4.1	**Method: *Engage*** Partnerships, meetings, conferences, workshops: The project will cooperate with the German-Kazakh Agricultural Policy dialogue (i) through consultations (individual, conferences & seminars) on Green Wheat Farming (Output 2.5) and arranging the participation of a group of Kazakh farmers (about 15 people) in the international trade fair for organic products BioFach (Nuremberg, Germany) within the National Experience Exchange Network (Output 4.1)	Responsible party, PMU	Yrs 2-4

Annex 13: Stakeholders consulted during project development

#	Full name	Position	Contact details
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Annex 14: Gender Analysis and Gender Action Plan

Presented as a separate document

Kazakhstan Green Crop Value Chain Report

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I. INTRODUCTION AND SECTORAL BACKGROUND IN THE COUNTRY

Northern Kazakhstan Landscape (as shown in Figure 1) is an important centre of agriculture in Central Asia, a major production centre of cereal crops (wheat, as well as barley and maize) and cattle (beef), with 70% of Kazakh grain exported. But historical opening up of steppes to mass-scale wheat production in USSR days has led to declining yields, with soil erosion and loss of soil fertility.

Figure 1: Map of Kazakhstan's regions

Source: Agricis Trade (June 2015). *Country Report: Kazakhstan*.

The UNDP-GEF FOLUR project objective in Kazakshan is to trigger wide-scale adoption of efficient land management technologies and promote green value chains to reduce degradation of productive agricultural land and associated high value ecosystems in Northern Kazakhstan Landscape. The project focuses on the four northern regions of Kazakhstan to support Integrated Landscape Management (ILM) policies, capacities, and incentives, thus ensuring the enabling environment for the transformation of land use practices to avoid ecosystem and land degradation.

Within wheat production sector, the project addresses the current deficiencies in green wheat production and crop diversification technologies, and inefficiencies in farmer state support system; introduces a system of agro-environmental incentives to increase access of small-holders to affordable funding for sustainable production; demonstrates efficient agricultural technologies in situ and conserves high nature value ecosystems within the landscape. The project is planning pilots on diversification and improved management of productive croplands for better incomes and less soil depletion (improved wheat production technologies; improvement of production and diversification from wheat to barley, maize, linen, rapes, sunflower, safflower, chickpea, potato, carrot, cabbage, buckwheat, lentil and beans); Sustainable perennial crop systems as diversification away from unsustainable production of wheat and other annual crops -including mixed cropping system, rangeland seeding and re-seeding, seeding of legume (alfalfa, sainfoin, burbot, sorghum, sudangrass, and ryegrass; pasture restoration and sustainable livestock management. The project is expected to develop and test mechanisms for collaboration with major wheat (and other crop) export companies, food companies to help market products from sustainable agriculture, and will support establishment of a cooperative platform with wheat exporters and retail companies focusing on green wheat.

The project will support the establishment of the cooperative value chain platform involving national and regional exporters and retail companies and focusing on green crop commodities. In this report, we identify the structure, size and scope of the agricultural green value chain potential over those four northern regions, the players involved in them, and the drivers governing their operations. Beyond the framework that is provided at the TOR, the report provides both the conceptual and methodological tools for looking at regional, and national economies by using a top-down approach that examines the national lead firms that control trade using the green crop value chain approach.

This study uses the national green crops value chain framework to understand:

- The national wheat flour industry
- The industrial organization of the wheat versus other perennial crops value chain
- The structure of the value chain in Kazakhstan and Central Asian countries, specifically Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan.
- The key value chain challenges and strategies for maintaining national economic, social and environmental upgrading or downgrading trajectories considering the conventional or innovative agro-technologies applied in four targeted northern regions.

The 2015 FAO "Guiding Principles for Developing Sustainable Food Value Chains" report provides the following definition for a Sustainable Food Value Chain (SFVC):

> *the full range of farms and firms and their successive coordinated value-adding activities that produce particular raw agricultural materials and transform them into particular food products that are sold to final consumers and disposed of after use, in a manner that is profitable throughout, has broad-based benefits for society, and does not permanently deplete natural resources.*

One of the most significant principles is that the Value Chain is dynamic and market-driven and that it must be integrated internally between the various links in order to be effective. There are also considerations that there needs to be value-added by each link and the overall chain needs to be sustainable.

The UNDP-GEF project is designed to contribute to the transformation of key commodity sector in Kazakhstan - wheat - through a systemic and integrated approach that improves the enabling environment for sustainable crop production by bringing all changemakers together to build a shared vision for action.

A. **Existing production and storage pattern for wheat and other crops in Kazakhstan**

There is a very strong and constantly increasing territorial concentration in grain production in Kazakhstan. The main wheat production region is located on the rich and productive chernozem and kashtan soils of the mainly flat northern/north-central territories and, owing to its dry climate, produces good quality hard wheat. In the period 2010-2012, the NKGR accounted for 85.7 percent of the country's total wheat output (of which spring wheat comprised 90 percent). In terms of the reported spring 2013 planted area, the dominant grain and wheat-producing oblasts were North Kazakhstan (31.2 percent), Kostanay (29.5 percent) and Akmola (32.5 percent). The output of these oblasts is supplemented by production in Almaty, Karaganda and East Kazakhstan, with a combined share of 8.0 percent in the total output (Zharmagambetova and Flake, 2013). Some winter wheat is grown in southern Kazakhstan, but the annual harvest is a minor share of the country's total wheat production.

The average area under wheat in Kazakhstan between 1995 and 2012 totalled 12,855,600 hectares (i.e. around 50 percent of all arable land), with the smallest area recorded in 1999 (8,741,000 hectares) and the largest in 2009 (14,280,000 hectares). Hence, Kazakh grain production is dominated by wheat. The average total annual harvest (in the period 1995-2017) was 12,070,565 tonnes, with the lowest quantity harvested in 1998 (4,700,000 tonnes) and the highest in 2011 (22,732,000 tonnes).

a) **Changes in land under cultivation in different parts of Kazakhstan**

A considerable amount of abandoned farm land has been reclaimed in the country already. The Kostanay and Akmola oblasts have seen an increase in cultivated land from 40% to over 50%, while the North Kazakhstan oblast only has seen an increase of about 18%. That lower increase for land recovery in the North Kazakhstan oblasts results from the land in that region being of better quality and there was less land abandoned as fallow.

The aforementioned expansion of arable land was for grain cultivation. For ten years the wheat crops in the Republic increased 2,821 million ha or 26.4%. This was mainly due to expansion in the north, where wheat crops increased by 45.8%. In Akmola, region the increase was 53.4%. This is a huge area, covering more than 1.2 million hectares. For comparison, we can say that it is equal to the area of sown wheat in Uzbekistan, and more acreage than in countries such as Kyrgyzstan, Turkmenistan, and Tajikistan.

In the Kostanay region of wheat increased by 1.3 million hectares or 52.3%, although the total grain number only expanded by 40%. This was due to the reduction of barley. This occurred because wheat is more cost-efficient as compared to barley.

b) Baseline in Grain and Crop Storage

There is a substantial shortage of elevators: North Kazakhstan: 36 percent; Kostanay: 22 percent and Akmola: 15 percent, this largely due to fact that those elevators are not only to store wheat but all kinds of grain crops. During times of high productivity, such as in 2011, all elevators are full and 20% of wheat crops in North Kazakhstan can be lost. Due to a shortage of elevators, there are significant difficulties and the attendant reduction in the price of wheat causes farmers to lose a significant amount of income.

If the production of grain is lower, like in 2019, the present capacity of the elevators is sufficient but the conditions for farmers are difficult and only large scale farmers can survive in such situations while SMEs remain without the benefits of suitable storage.

There is also a significant physical deterioration in equipment for processing of grain, which leads to delays in the flow of whole grains. Such delays during harvest time increases the loss of grain. To get around this issue, the flow of grains is forced straight from the fields to elevators. Additional elevators and cleaning facilities are anywhere from 50 to 70 km away from the farms. As a result of the 7-8% increase in non-productive traffic during harvest time there are overall increases in energy consumption for cleaning and drying of grain. In order to ensure timely handling of grain, especially in northern Kazakhstan, it will be necessary to upgrade the existing points of acceptance and handling of the primary grain (grain storage). In the future, given the expected growth in productivity and gross amounts of grain, this problem will become more acute.

The current situation is exacerbated by the fact that many of the storage facilities that currently exist in the country are not modern. Due to the absence of the modern or available elevators in Kostanay for example, grain arriving at an elevator is mixed with deliveries from other farms and cannot be differentiated. This can result in all of the farmers being penalized for having some sub-standard grain being delivered.

The Government of Kazakhstan tries to build more capacity through KazAgroFinance, but the speed of the reconstruction and new building of granaries are only moderate.

B. Kazakhstan Export Markets

1. Grain Exports

Kazakhstan occupies a leading position among the world's major grain exporters. According to UNDP Kazakhstan ranked seventh in the world in grain exports in 2019.

Kazakhstan is known as a global supplier of wheat. In 2019, exports were made to 36 countries. The main exports of Kazakh grain traditionally have gone to CIS countries. Their share fluctuates over time. In 2010 CIS exports were 62% of total exports, in 2011 - 89%, in 2012 - 36% and in 2014 - 51%.

2. Flour Exports

Kazakhstan is actively building up flour exports to foreign markets. Over the past 3 years, the volume of exports of flour from the country increased by a factor of 2. It should be noted that the agricultural products in the form of Kazakhstan flour is about 80% of the total.

The high value of Kazakh flour in foreign markets is confirmed by the competitive advantages Index (DMI), which evaluates the competitiveness of goods in foreign markets. The DMI for Kazakh flour was deemed to be 7.5 units. This was established according to the Concept of agricultural products to improve the image of Kazakhstan as prepared under the World Bank and the Ministry of Agriculture RK "Improving the competitiveness of agricultural products in Kazakhstan. "(IPC> 1 - production of goods is competitive, the ICP <1 - has no competitive advantage).

Kazakhstan's share of total world exports of flour is more than 14%, which makes it the largest exporter of flour in the world.

A feature of the international flour market is the small number of the large exporters of wheat flour. Among them are the EU countries (France, Belgium, Germany, Italy), USA, Kazakhstan, Turkey, etc. Kazakhstan's stable position in the world market is ensured by the baking flour properties as produced from domestic wheat. This high quality is well known in countries near and far. This allows Kazakh flour to be competitive on the global market and provide good markets in different countries.

II. DESCRIPTION OF THE EXISTING CROP VALUE CHAIN IN KAZAKHSTAN

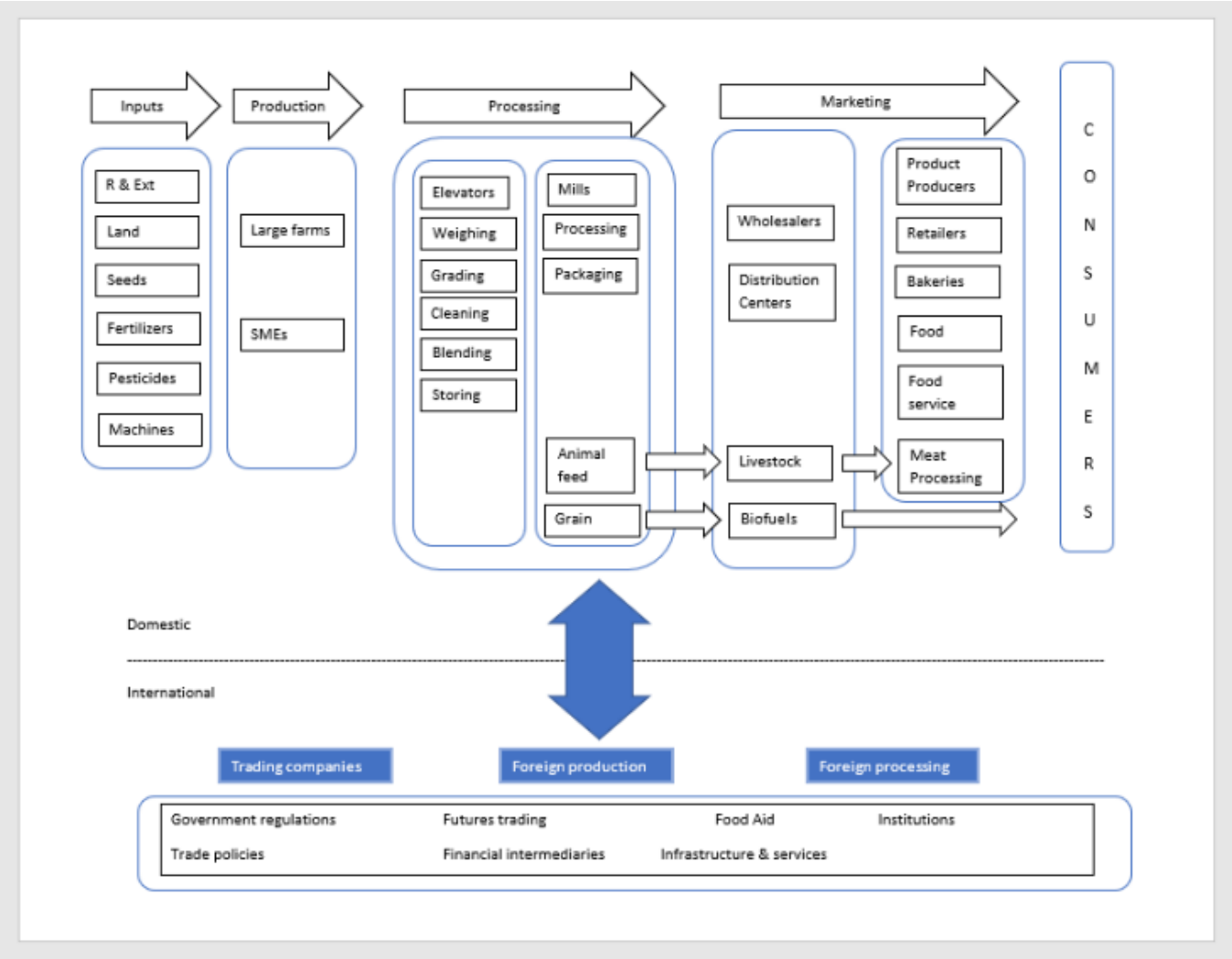
A diagram of the existing crop value chain in Kazakhstan is the best way to provide an overview of the current production and marketing of grain and grain products. Figure 2 shows the chain starting from the inputs to cultivating the grain all the way through to the consumer(s).

Some important elements in this chain that need to be highlighted occur in the bottom box of Figure 2. As the links in the chain progress from Inputs through to marketing, each link is impacted by one or more of the variables in the box, e.g. Government regulations, Financial intermediaries, and/or Infrastructure & services.

The major inputs for wheat producers are seeds, crop chemicals, equipment, fertilizers, water, land, and labor. Research and extension are expensive and important in order to improve the wheat variety and adapt it to certain climatic conditions. Large companies supply crop chemicals, fertilizers, and machinery. The Government subsidizes and regulates these inputs. Market concentration and the high cost of some inputs and limitations on natural resources (land and water) limit domestic production capacity. Production of wheat and other perennial crops in Kazakhstan is dominated by large scale farmers as opposed to the small and medium scale wheat operations.

The milling industry plays a dominant role in the primary processing of wheat (for human consumption and for use as animal feed), while secondary processing is dominated by the bakery and the confectionery, as well as the pastry (macaroni, noodle and other flour-based products) segments. In terms of cereal equivalent, some 30 percent of the grain output (average of years 2007-2011) was processed by entities in the primary grain processing industries. The processing ratio varied significantly depending on the volume of the grain output: in 2008 it was 25.5 percent while in 2010 it was 56.9 percent (Aluisio, 2013).

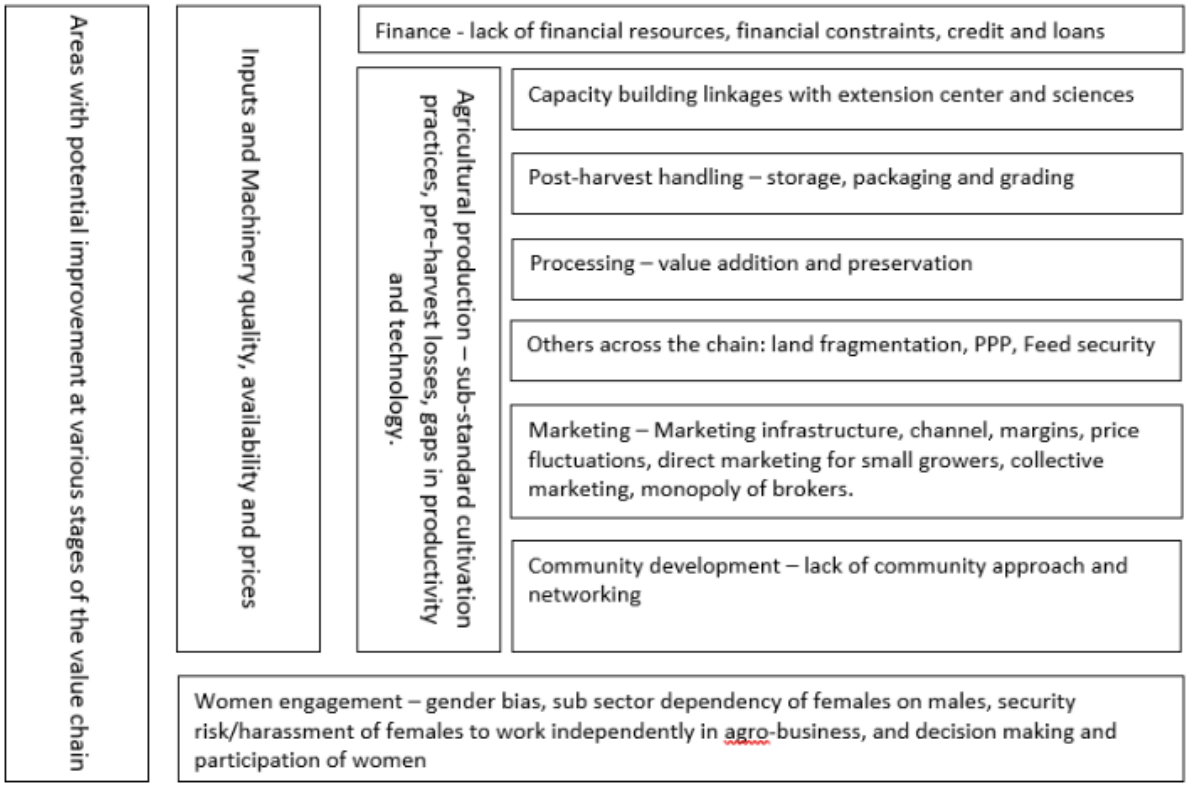
Figure 2. Existing Value Chain for Kazakh Wheat and Agricultural Products



The focus of processed grain and wheat products has gradually shifted towards lower added value containing products, the proportion of flour, groats, and meal has increased, while the share of bakery and pasta products has declined. A total of 2,638 enterprises operated in the food sector in 2009 (FAO, 2010a), making up some 30 percent of the total number of manufacturing enterprises. The great majority of these enterprises were SMEs. Adaptation to the expected differentiation in domestic consumer demand and better adaptation to export requirements will not be possible without substantial development of research and extension activities.

An alternative depiction of the many intertwined elements of the CVC is provided in Figure 3. This shows the complexity of the financial, technical, business and even gender equality issues in Kazakhstan.

Figure 3. Alternative Format for the Existing Value Chain



III. PROBLEMS AND CHALLENGES

A. Key Challenges for the sector

1. Stagnation in production of grain

The root cause of this stagnation lies in the areas of marketing, competitiveness and merchandising. This has evolved from the country's "food resource curse": Kazakhstan remains the only food donor in the Central Asian region. In the past, this position has triggered the development of the grain sector in Kazakhstan but at the same time limited its presence to this single region. Meanwhile the potential for additional growth continues to be high (development of new markets, high-quality growth in existing markets). However, the sector's financial indicators show that its potential is being tapped poorly: the gross output of crops has not exceeded 3 billion USD for more than 7 years.

2. Lack of technological innovation in SMEs

Technological innovation is taking place primarily in wheat production, especially in large agricultural enterprises, but there is little such innovation in small- and medium-size enterprises, in primary and secondary processing and in the wholesale and retail trade.

Product development and the introduction of modified and new products are necessary requirements in primary and secondary wheat processing in both the domestic and the export markets if producers and processing businesses are to maintain or improve their competitiveness.

The proportion of research and extension expenditures in the Kazakh agro-business sector (0.26 percent, UNDP, 2017) is very low by international standards.

3. Localized poverty pockets

Despite economic growth, large shares of the population remain in or are vulnerable to poverty. While average poverty rates in Kazakhstan are lower, significant pockets of poverty and social exclusion remain, largely due to the lack of better-quality employment opportunities.

4. Low intra-regional international trade

Intra-regional trade is extremely under-exploited. It amounts to approximately 5% of total trade, compared to 67% in the European Union, 62% in NAFTA, and 26% in ASEAN. Most importantly, average trade costs are twice as high as in other regions, due to long delays at borders and high customs and other fees. Higher trade costs are a particular burden for small and medium-sized enterprises in such labor-intensive sectors as agriculture, light industry, wholesale and retail trade.

B. Problems for various value chain actors

Problems for wholesalers/distributors were identified as follows:

a) Permitting/planning issues for grain elevator construction; lack of distribution centers

The construction of wholesale distribution centers for green crop and elevators for the grains is lacking. The wholesale distribution centers are to regulate the market price during the off-season and elevators to storage grains and export it to foreign countries. The construction permitting/planning procedure is not yet in place with regard to the construction of the wholesale distribution centers. There are no wholesale distribution centers in Kazakhstan nor any other nearby countries.

b) Problems on the international level

First, there is no roster of logistical companies to market the wheat internationally. Then, there are uncontrolled customs fees and services within the Eurasian states and non-Eurasian states. The other key issue is related to the re-export of the green wheat crops from Kazakhstan to Afghanistan through Tajikistan or Uzbekistan.

Interviews with retailers (Auchan, Magnum, Tamasha and Small) confirmed that the key challenges facing sectors of the agricultural chain include weak supplier base, logistical infrastructure and construction permitting and planning. Poor tax system and need for sectoral regulations regarding repatriation of profits are among the key system barriers for the retailers that hamper market penetration and transformation. The main capacity constraints for the retailers include lack of networking and direct connections, and in some cases poor business planning and unstable logistics services.

Challenges for the farmers/producers include:

- Chaotic farming pattern and production system, which does not follow proper farm management,
- A dearth of record keeping (including maps) with detailed descriptions of the crop production and the technologies to be applied for the coming years,
- Farmers are used to producing the same crop for ages, they feel reluctant to adopt new methods and would resist rapid changes in their usual farming businesses where they would be forced to follow the requirements of the retailers, and
- Very low prices offered to farmers

The low prices are due to the following problems:

The long waiting times for properly storing the wheat during harvest time produces delays in reaching storage sites which correspondingly lowers the quality of the grain; for example, if the moisture content of the grain is above 14%, as is the maximum standard, then the price for such lower quality grain is less than for standard grain. Thus, farmers have to accept the price offered by the elevators.

The national road transportation is generally stable but there are often road blockages due to extreme weather in the north part of the country during the winter.

Common barriers for farmers/producers, wholesalers and retailers relate to the road infrastructure during the winter months, and the logistical infrastructure – the shortage of elevators for cleaning and storing the green crops

IV. PROPOSED ENHANCEMENTS FOR GREENING THE CROP VALUE CHAIN

A. Improvements in Policy

The following policy reforms and capacity building actions are necessary for greening the wheat and other crop value chains:

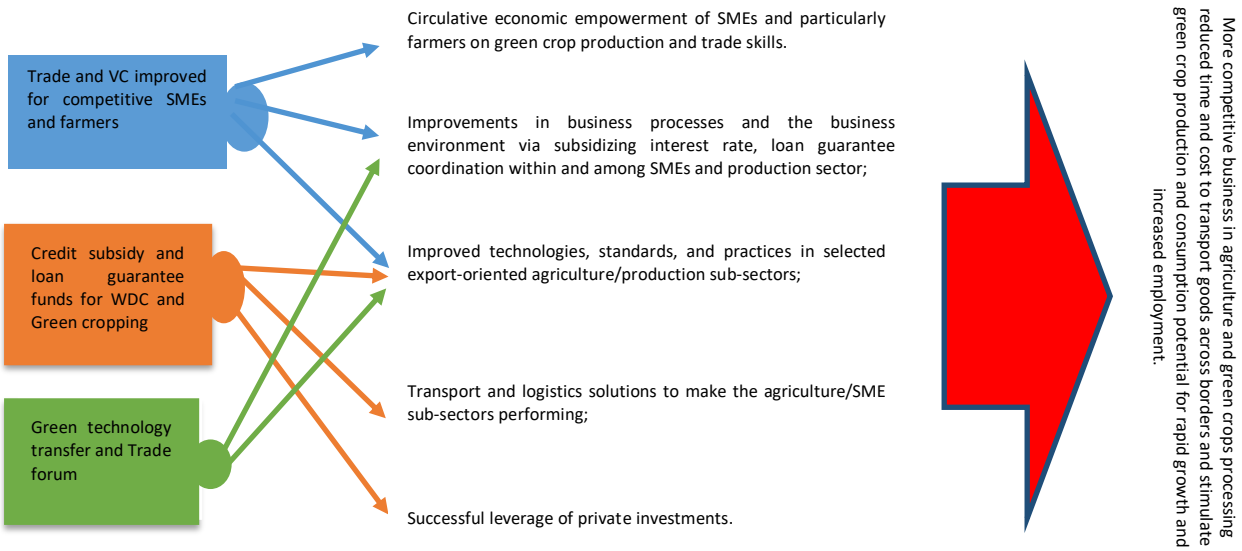
- providing technical assistance to private sector and government bodies involved in developing or implementing activities which contribute to green crop value chain and sustainable trade development and promotion.
- apply a value added proofing mechanism to enhance the efficacy of the state strategic support programs to stimulate the SMEs productiveness under targeted green crops or other commodity products that are demanded at the market.
- removing the policy and legal barriers providing a foundation for the competitive export-orientated strategies including transport/logistics, green freight transports; eco-labelling; marketing of environmentally friendly products including the reduced time and cost for production and transport of goods within the region and beyond.
- provide technical support to the private sector and government bodies to embed ISO/EMAS environmental management systems into the legal and policy documents; Corporate Social Responsibility (CSR) and implementation of Occupational Health & Safety (OH&S) measures; nudging consumers and use behavioural insights to promote sustainable behaviours; prevention of misleading environmental claims and green evolution.

Before any reforms could take place, the feasibility assessments should be carried out with four-fold results, as follows:

- Perform market analyses with concrete initiatives, policies, and programming directions through which governments, retailers, businesses, civil society, and the producers work together to boost productivity of the value chain sector, and sustain production and consumption in the agricultural sector while considering the demand of both national and international markets.
- Provide concrete steps and recommendations to improve productiveness of the SMEs in production and processing through resilient green technologies for the processing of targeted green products.
- Articulate national and international green production issues with special reference to the challenges caused by the operation of various sizes of business, from small entrepreneurs and micro businesses up to large scale retailers, and how these various sizes of businesses can best function in Kazakhstan, Central Asia and abroad, bring in the transfer of best practices in developing trade capacities through knowledge sharing, discussion of national and regional policies and diffusion of good practices in several thematic areas with special reference to (i) tools for better market access; (ii) the distribution of knowledge and new green technologies and (iii) the impact of green trade product availability and internal trade barriers on local development and micro businesses.
- Provide possible ways how to provide better access for the SMEs to markets would help to improve the current paradigm of low-value addition, green production, and economic diversification, while creating economic opportunities to enhance their green production and farming businesses.

Figure 3 is a visualization of the logic chain between outputs, the project strategy and the project activities. All project activities shall be implemented with explicit consideration for gender equality issues. The right balance of representation of all stakeholders benefiting from the project shall be ensured by fostering broad consultation and participation.

Figure 3. Logic chain



A matching cost scheme seems a viable solution that will provide options both for the Government, retailers, farmers and other private companies to construct new wholesale distribution centers and operate them following the principles of public and private partnership for the value chain operationalization through wholesale distribution centers.

Investments in infrastructure and machinery for processing green crops will be essential to unlocking the farming businesses. This will not only enhance their production potential, develop abandoned lands, improve their value chains, mitigate the consequences of climate change, water scarcity, and soil degradation but will also offset carbon emissions to amplify the process of soil carbon sequestration.

To make these value chains profitable, there is a need to strengthen the infrastructure of the target value chains, provide soft loans with crop insurance to the small-scale farmers, and create the environment conducive for direct or facilitated marketing of a ready product that can help farmers get better financial returns.

Value chains for agricultural commodities can function more efficiently and effectively when small-scale farmers develop relationships with suppliers of inputs and services and with entities that market and process their output. The integration of farmers into value chains can have mutually beneficial outcomes both for the farmers themselves and for other value chain participants. Farmers can aim to supply a product that is suited to the requirements of processors and end-users, both in terms of physical characteristics and the reliability and timing of supply. Processors, traders and other chain participants, in turn, can provide farmers with information, training, inputs, and finance.

Promote contract farming, vertical integration or a combination of both.

B. **Replacement of Wheat Mono-Culture with Alternative Crops**

Positive factors contributing to the sowing of oilseeds and legumes:

- High product margins (export opportunity, stable demand, high price);
- The need to ensure crop rotation. They are good precursors for crops;
- The positive effect of crops on the physical, biological and agrochemical properties of the soil.

Factors that reduce interest in sowing oilseeds and legumes:

- Lack of proven regional technology for cultivating many crops;
- Lack of specialized equipment for cultivating crops;
- The high degree of damage by pests (rapeseed);
- Low potential yield (safflower).

A stronger dependence of crops on agricultural technology, provision of moisture and nutrients.

C. **Improvements in grain production**

1. Capitalization and replication of available experience.

Some green innovations have already been launched and implemented by individual enterprises. These examples should be studied, documented and disseminated. An economic analysis of the current crop sector's model is also needed as it was carried out sporadically and a very long time ago.

2. Searching and implementing best practices of intersectoral interaction.

The country is experiencing a critical disunity between different sectors of the crop production process. Disunity of direct beneficiaries (farmers) with actors in the field of agricultural science, agricultural insurance, logistics, regulatory authorities, agrometeorological organizations.

3. Updating regulations.

Regulations in the field of land relations need to be updated. Local authorities do not have enough time, money and, sometimes, competence to make a deep study of the problem. At the same time, a model of the land law with reference to differentiated taxes and a positive history (15-20 years) of land use at many farms in Kazakhstan is obvious and is being actively proposed by industry associations.

4. The widespread introduction of online services.

The digitalization of the country's agro-industrial sector is in the rudimentary stage. It is necessary to ramp up and scale up this work as much as possible, since even the superficial mastery of modern tools shows visible and very convincing results.

5. Searching and implementing solutions for additional financing from related sectors and industries.

The origin of the problem is partly described in paragraphs 2 and 3, above. The same money circulates in this sector without any third-party injections. 80% of investments in the sector are various enterprises' own funds and they go to capital investments: upgrading machinery, production buildings. Little is spent on innovation. We think that the key problem is a weak investment climate, although there is always a demand for products. The solution here may be a system of agricultural lending, forward procurement or a symbiosis: goods in the future in exchange for consumables (seeds, agricultural chemicals, spare parts) in the present.

6. Improving the competitiveness of the agricultural work force.

In a country where 65% of the working population is employed in the public sector, the agro-industrial complex is the first to suffer from any staff shortage. The quality of farm workers is low. Enhancing the role of a farm worker in the society and increasing the productivity of the workers themselves via intensive training are the first steps that need to be taken now.

D. **Demonstration of improved wheat cultivation techniques and crop diversification.**

A key element to the greening of the crop value chain will be the establishment of tests sites to demonstrate new approaches for various links in the chain. 3-4 pilot farms that will produce green wheat and other crops, piloting the green processing technologies and using innovative packing of processed wheat in order to reduce the cost of processing and improve prices in targeted hypermarkets.

The idea behind these pilots is to bring green wheat to a responsible value chain, from harvesting to markets, in the following scenario:

- From the market to the field

Seed selection (old or new cultivar, whether or not acclimatized, variety or hybrid, spring, winter or can be planted both as spring and winter, processed, pickled seeds)

- From field to processing

In the process of production and harvesting, farms must accept and know all the requirements of processors. This is necessary in order to avoid inconsistencies regarding the quality of the product (presentation, moisture, color, size), composition (gluten, protein, starch fat) and other seed parameters. Processing equipment works under certain parameters. If the parameters are met, then the product will be competitive and will go well for export.

- From field to elevators

It is necessary to provide conditions under which small farms have equal access to elevators - along with large producers. For example, through the creation of associations or cooperatives.

- From processing to retailers

It is necessary to test the mechanisms of long-term obligations of all parties and compliance with market requirements, so that farmers through the processors recognize the market well. They need to know how and what parameters of the future crop must be observed, so that it matches the market throughout the chain, and not just to the elevator and the rest of the chain doesn't matter.

- From the field to export, by way of a trading platform

These are auctions, logistics, a database of manufacturers, traders, technical and legal support, remove re-export issues, strengthen work with Kazagromarketing and Kazprodkorporatsiya and KazExport on direct access to sales and supply markets.

The demonstration pilots will have only intensive agricultural technologies, because it is these technologies that will be able to ensure neutrality of soils, i.e. depositing the maximum amount of carbon in the soil and in vegetation.

Tentatively, the following farms, based on their respective sizes, small medium and large farms, could be selected as the representative pilots:

- a major agro-formation, "Olzha Sadchikovskoye" LLP, for crop production, vegetable growing, animal husbandry and processing of dairy products.
- "Lugovoye" farm, a medium agro-entity engaged in crop production with a specialization in seed farming.
- LLP "SCHOS" Zarechnoye," a research center in crop production with a specialization in seed and livestock.

World experience and research by domestic scientists and practitioners suggest that the most important condition for greening agriculture and stabilizing soil fertility are minimizing mechanical tillage, leaving all crop residues on the soil surface in the form of mulch, direct sowing, scientifically based crop rotation in crop rotation, integrated protection plants from weeds, pests and diseases through the use of highly selective pesticides.

At demonstration sites, spring wheat and other crops should be planted using various technologies: using zero and minimal soil cultivation, using traditional zonal technology. Spring wheat and other crops will be sown at different sowing dates, starting from the second week of May and ending with the first week of June.

At the large farm level of "Olzha Sadchikovskoye" LLP, the preparation of scientific and production demonstration plots will include the sowing of such crops as wheat (191 235 ha), alfalfa (121 165 ha), sweet clover (122 200 ha), flax (98 200 ha).

At the medium-sized farm of Lugovoye farm, the preparation of scientific and production demonstration plots will include the sowing of such crops as wheat (87 120 ha), sainfoin (65803 ha), peas (22 200 ha), chickpeas (12 200 ha).

At the level of the research center of LLP "SCHOS" Zarechnoye,", the preparation of scientific and production demonstration plots is to be coupled with taking into account the further dissemination of best practices with the sowing of such crops as wheat (9250 ha), sunflower (1200 ha), flax (1200 ha), grain bread (1250 ha).

The total sown area of the demonstration plots in all four target regions can be to 611 858 ha. Seeding rates for crops and farms varied within: wheat - 3.0-3.5 million germinating seeds per 1 ha, peas - 0.8-1.0 million, chickpeas - 0.4-0.6 million , flax - 6.0-7.0 million, sunflower - 30-40 thousand, alfalfa - 4-6 million, sainfoin - 3-4 million, sweet clover - 3.5-4.0 million, grain bread - 4.5-5.0 million

At the demonstration sites, the following activities are to be carried out to reproduce soil fertility:

1. The accumulation and conservation of soil moisture.
2. A set of measures to combat wind and water erosion.
3. Mapping of the mechanical composition of the soil (planning the start and conduct of spring fieldwork).
4. Mapping estuaries (existing, potential).
5. Measures to soften the soil.
6. The use of organic fertilizers.
7. The use of mineral fertilizers as a factor in restraining the decline in soil fertility.
8. Crop rotation, the introduction of legumes, perennial grasses, binary crops, the rejection of pure vapors and monoculture, the use of green manure.
9. Compliance with the technology of pesticides.

A set of agrotechnical measures are proposed to be built in accordance with the integrated technological map of cultivating the crop, and also depended on the structure of the cultivated areas of the farm, a map of the fields with the location of crop rotation, weediness. To account for the expenditure of resources (seeds, pesticides, fuels and lubricants, fertilizers, labor) and inventory, their differentiated use, digital technologies, and equipment were used (GPS equipment, fuel consumption sensors, sowing machine actuators, digital weather stations, satellite data, and drone data) Monitoring in these farms during the sowing campaign was carried out including using the above elements of the precision farming system.

E. **Improvements in grain distribution**

1. Harmonization of standards to expand the distribution geography.

The diversification of the grain sector is often hindered by different perceptions of suppliers and consumers regarding the quality of the supplied goods. This should be addressed by implementation of national standards that importers understand.

2. The widespread introduction of online services.

To buy and sell (with elements of exchange trading), to search for new partners, and to understand the size of supply/demand are all elements that can be implemented online. Market transparency is a key factor that facilitates trade and inherently lays a foundation for a more productive cross-country cooperation.

3. Formalization of trade relations.

Another important consideration can be added to paragraph 2, as follows: the agricultural market of Central Asia is highly speculative, requiring not only indirect measures to add openness but also real organizational processes. This could be addressed by a self-regulatory organization that would guarantee a fair deal for both parties, provide legal support and facilitate a high-level dialogue on harmonization of legal acts.

4. The analysis of premium markets and ways of adding the value to products (processing of raw materials, waste management).

It must be recognized that the total export supply of crop production in Kazakhstan is poorly diversified. There is a strong prevalence of wheat, although domestic producers have a number of noticeable advantages (low cost, humus-rich soils, unregulated trade) in related markets (oilseeds, legumes, cereals, etc.). In our opinion, this situation may change after a wide dissemination of the expert opinions supported by costing of alternative supplies.

Distribution chains (for the main commodities: wheat, barley) are well established but expect significant renovation to ensure their more efficient (profitable) use.

F. **Food processing and food retailing sectors**

1. Food production companies interested in producing green products

Following the discussion with the majority of representatives of the following key food production companies, all of them were mainly engaged in the production of food production from Northern Kazakh crops and confirmed their interest to produce products from “improved wheat” or other “green crops” originating from Northern Kazakhstan.

Many market participants are operating in the bakery and pastry industry (main players: Sultan JSC, Korona Export LLP, Tsesna Astyk Concern and Grain Industry JSC) but the average capacity is small and the average company size is medium by international standards. The past few years have seen the construction of large plants that are competitive even in international markets, such as Zernovaya Industria’s macaroni factory with 60,000-tonne output capacity.

JSC "Kostanaiskiy Flour" (LLP "Grain Industry"), TOO "Tobol-Agro", TOO "Asal" LLP, "M Vadis", LLP "Sarybai" LLP, MK "Roman", LLP "Kazmelmash" LLP, "Oriole."

In South Kazakhstan region flour producers are TOO "Arai", LLP "Amangeldy" and LLP "Aysu holding." Karaganda oblast enterprises milling industry are: TOO "Jer Arna" JSC, "Bakery", LLP "Corporation Karaganda-Nan ", JSC" Bidai Nan ", LLP" Karaganda Flour. "

In North Kazakhstan region 155 mills operate, of which the largest producers are: TOO "Sultan Elevator - the Mill-macaroni complex", LLP "Mamlyutsky flour Plant ", LLP" Kzyltusky flour mill.

2. Improving food product company investment opportunities

The Government of Kazakhstan has targeted green crops agribusiness to prioritize increased investment and export basked diversification. Green crops have strong potential in Kazakhstan to develop further due to the country's considerable land

resources, growing demand for green agricultural products in local and regional markets, and the spillover potential to adjacent sectors (e.g., chemicals/fertilizers, transportation, warehousing, and grain elevator). The country, including the four northern regions, strives to increase green agricultural products by 50% and substitute imports to help Kazakhstan become 80% self-sufficient by 2025. Some of the green agricultural products are imported from countries as far as Russia and the Netherlands. Import substitution will reduce the transport-related carbon footprint of food consumption in the country.

Kazakhstan is investing in green agricultural products following the new Agricultural strategy 2021-2025. It developed its green production labels to increase its value. Estimates of the volumes of green farm products that can also be considered organic vary between 13.6 million and 303,381 hectares . The difference may come from the extent to which the data includes 70% of wheat crops, which can boost food production in all Central Asian countries and beyond. The green agricultural products will enhance Kazakhstan's market attraction to export to the European Union, Russia, and Ukraine .

Four Northern Kazakhstan regions have 78.6 million hectares of agricultural land, 31.0 million arable, and the remainder of other crops. Out of the arable land, 0.17 million hectares are irrigated, including 46 hectares of greenhouses. The frost-free period varies between 195 and 265 days in the south of Kazakhstan. This limits the cropping period to a single season, from March to October .

The returns per hectare vary substantially between the different regions in Four Northern regions. This points to differences in conditions and actual land use and the potential for improving wheat yields considerably through transfer to the green agricultural production systems.

	Lowest regional average	Average from four northern regions	Maximum regional average
Revenue from agricultural production system (USD/ha)	531	1,493	3,394
Revenue from conventional agricultural land, including other grain crops (USD/ha)	75	176	1,304

Green agricultural production from all four regions increased from USD 1,120 million to USD 510 million in the four years preceding 2017. Growth ambitions are high, both in agricultural production and processing capacity, directly influencing land-use efficiency under green wheat crops. When realized, they will tip the balance from being a net importer to becoming a net exporter of green wheat crops in just a few years. To achieve this growth, the project will showcase how to expand the land surface under green agricultural cultivation, investing in green farm technologies and processing capacity, and attracting foreign investors. In 2019, around 33% of the value of the green crops created by industries all in all northern regions was from green wheat production and used for the initial processing sectors.

Several success factors contribute to the substantial expansion potential of the green crop value chain, food processing, and retailing sectors in Kazakhstan. The national food market is growing briskly at more than 6% per year, with sustained growth rates spread across all segments (e.g., 7.2% oils and fats, 6.5% dairy, 5.2% bakery products). However, the national market is very fragmented. High concentration can be seen in regional markets and products where regional brands are prevalent (e.g., breakfast cereals, soups, confectionery). The food processing sector in Kazakhstan is also increasing, with a turnover of USD 4.5 billion in 2010. It increased nominally by 73% from 2015 to 2019. National growth rates in the green crop retail are also substantial (6% annually). A number of trends indicate higher growth prospects and an increasing regionalization of modern retailers from Kazakhstan towards the Central Asian countries. The other agricultural food processing and retail companies in Kazakhstan have similar development potential (expected compound annual gross rate of 7.5%) . Investors have identified similar success factors for investments into the food processing and food retailing sectors: the characteristics of the end consumer and the labor market, the degree of competition, the macroeconomic environment, the supplier base, and the logistical infrastructure.

While Kazakhstan is attractive for green agricultural products and food retailing investors, further measures could be taken to enhance its investment potential beyond the Central Asian countries to the abroad market to be used as benchmarks to evaluate the relative green strengths wheat market of Kazakhstan. Compared to Central Asian countries, Kazakhstan's green wheat market displays relative strengths in the attractiveness of its end-consumer market, the efficiency and flexibility of its labor market, and its supportive macroeconomic environment. However, to compete more effectively, Kazakhstan would need to expand its supplier base and further improve its green wheat production system. Kazakhstan's green crop food retail market displays relative strengths from an investor perspective when compared to China and Turkey, which experienced substantial growth in their agricultural food retail markets in the 1990s as the baseline year. Kazakhstan's strengths are its customer structure, low level of competition, efficient and flexible labor market, and the country's fit into many food retailers' expansion strategies. Interviews with the largest retailers (Ashan, Magnum, Tamasha, and Small) have

confirmed that green agricultural products will impact the sustainability of the wheat green production system in Kazakhstan and export potential and overall impact on the food security sectors in all Central Asian countries.

The only impediment to ensuring the prosperity of the wheat sector's green agricultural production varies widely due to climatic and agronomic factors rather than the cropping area's size. Over time, average yields have ranged from 0.9 to 1.3 t/ha, and this fluctuation in the average yield per hectare has been the primary cause of the considerable variation in the total annual output of green wheat crops: variations in the latter have been three times larger than the changes in the area under wheat. This is a consequence of several factors. Among climatic factors, the risk elements are related mainly to the uneven distribution of precipitation and the absolute amount of rainfall in a given crop year that can range from water scarcity or aridity to drought. Agronomic factors include various aspects of wheat husbandry: the crop site conditions, the biological bases used including the choice of variety, the level of farming and the size and structure of farms, the use of agrochemicals, the means and the quality of soil tillage, and that of harvest and transport.

Such a wide fluctuation in output makes any planned development of the appropriate levels of drying, storage, and processing capacities virtually impossible. This fluctuation, along with the variations in the initial green wheat stocks, also affects wheat exports. According to USAID-UNDP data from 2012, the degree of instability declined between 2010 and 2011 (19.0 percent). However, it is still much more significant than in Pakistan, another country with a green wheat export potential in the region (10.0 percent). In the key Kazakh green wheat and flour export markets, the coefficient of variation in wheat production exceeds the Kazakh level: Afghanistan: 31 percent, Tajikistan: 21 percent, Kyrgyzstan: 20 percent, and Uzbekistan: 29 percent.

There are two ways to increase production and storage patterns for green wheat products and other annual and perennial crops in northern Kazakhstan regions considering the principles of the land degradation neutrality, increase the cultivated land area under or augment yields on existing land with application of the green agricultural production agro-technologies such as no-tillage or other minimizing land plowing technologies. Thus, through green agricultural products, the wheat market will be broadened, and LDN potential on those lands would be enhanced substantially per unit production of green crop areas in all northern Kazakhstan regions.

To improve the investment climate for investors in Kazakhstan's green crop value chain as it relates to food processing and food retailing sectors, the focus should be retained on the following policy areas where it has to be brought to the attention of the government while pursuing targeted reform efforts:

- Provide increased incentives for investments in food processing co-operatives and technology;
- Establish higher quality standards for food processors.
- Develop a sector database of local food processors to facilitate the attraction of food retail investors.
- Apply the five-step methodology to the pilot projects in the food processing and food retailing sectors in order to yield valuable lessons for its potential implementation in other sectors.

The focus should be with the sectors that have high potential for production and processing, exports and employment generation and on practices that are environmentally friendly. The creation of a stronger business case for export-led growth is required to disentangle the complexity of the administrative barriers and coordination failures that have resulted in such high trade costs for the region. This cycle in turn will create space for a policy for the promotion of more ambitious public reforms, including an overall improvement in business environment, and more transparent and harmonized customs and trade procedures.

G. **Green crop value chain promotion and organization through establishment of a task force**

There is an existing task force group established within the other UNDP project in Kazakhstan and will make it a more effective and sustainable forum for bringing together diverse agencies for the purpose of guiding the national programming framework to sustain green crop production and the value chain. The existing task force group should be reprogrammed to also deal with the e*stablishment/strengthening of sustainable private public platforms to* promote the agricultural production sub sectors, support the development and operation of business plans and national multi-stakeholder-oriented green crops production and export centered platforms. The product-specific value chain platforms will foster dialogue within government, and with non-governmental stakeholders to build a consensus around the national 'vision' on greening agriculture. B2B networking will be supported, including an annual BiF Forum. There is an ultimate need in the knowledge products and practice guides, such as business plans/practices and methodologies to maximize the potential of national multi-stakeholders to start with direct engagement of green crop production and technology transfer activities in their

production/implementation processes and institutionalize the long-term sustainability performance of agricultural and agro-industrial production sectors with a focus on market reform and improved value chains businesses.

H. **GCVC export issues**

An action-oriented review of trade promotion issues regarding the borders and customs documents with a focus on green crops and value chain promotion should be made available as a background study. The review is expected to address various challenges at the expert level of the value chain, such as customs obstacles, fees, logistical issues, customization including lack of green production technologies and processing skills, lack of competition in the local transport sector, lack of affordable refrigerated warehouses, etc. Upon completion of the regional value chain gap analyses within the UNDP-GEF project, a call will be issued for firms to participate in activities aimed at addressing challenges and barriers identified in the review of business promotion covering broader regional actors. Lead firms will be identified, prioritization of interventions carried out, and a blue-print sub-sector map for each targeted value chain will be created.

A technical advisory group for selected high-priority regional value chain promotion will be established. The project will establish a roster of experts for formulation of a strategic business plan along with a review of selected commercial and trade facilitation programmes and regulations, and also for providing training to businesses to define their own green crops production businesses and to launch start up projects. A business facilitation and information portal will be established. The project will collaborate with KAZNEX and the National chamber of entrepreneurship of Kazakhstan in the development of an information portal to improve access to relevant data for business start-ups, especially young business people.

Furthermore, the project will involve the following concrete activities:

- Establish a dialogue at the regional trade chambers level to reduce the intra-regional trade and export issues, especially addressing the issues related to the re-export of wheat from Kazakhstan to Central Asian countries.
- Host inter-alia regional linkages between business associations, chambers of commerce, and other regional producers/processors.
- Facilitate B2B matching to provide a platform for cooperation and business exchange which would support start ups. This activity builds on the experience and lessons learned from the Aid for Trade project, i.e. to promote further links with firms in the neighbouring countries.

I. **Environmental dimension**

The UNDP-GEF project holds out hope for improving the existing GCVC as related to low-carbon food production, closed loop production systems, composting, avoiding synthetic fertilizer with attendant GHG emissions, etc.

There will also be improvements in the geographic environmental issues in NKL, e.g. urban vs. rural areas. By seeing and experiencing improvements in the local rural agricultural communities, the urban dwellers will be exposed to renewable and environmental protection concepts.

J. **GCVC international impacts, including border issues**

At issue is the identification of the niches and tasks in which suppliers can contribute to a global value chain. This further increases the importance of standard trade facilitation measures such as one-stop customer care and integrated border-crossing posts, as well as such beyond-the-border measures as improved transport and communication infrastructure. Improvements in rural roads and mobile phone networks not only facilitate trade but can help ensure that the ensuing trade is generally pro-poor.

The project will provide a platform for regional players such as business associations, chambers of commerce, and other regional producers/processors through the task force group to promote customer-friendly trade facilitation measures, including reduction of border trade barriers and customization services between members and non-members of the Eurasian states. The role and contribution of the task force group in the project strategy on both national and regional levels are well described in the above sections.

Harmonization of the customs principles and mechanisms between members and non-members of the Eurasian Economic Union states will help the small, medium and larger scale exporters to access the regional markets.

UNDP's most recent research suggests that the following three activities can help Kazakhstan, and the other countries in the region, take advantage of approaches developed by the accession to the WTO and the country's moves towards enhanced regional integration within the Eurasian Economic Union:

- Reductions in at- and beyond-the-border barriers to trade, particularly via trade facilitation and border management initiatives;
- Investments in the competitiveness and green value chain productivity of the small-scale producers and traders who have not yet been able to share the benefits of wider economic integration; and
- Ensuring that efforts to facilitate WTO and Eurasian integration reflect human development needs and opportunities.

K. Technological and Equipment Improvements

In order to make technological improvements in Kazkahstan agriculture, one needs to evaluate results from other countries. The adoption of new technologies can be a key factor in value-chain development and, in some circumstances, is a necessary condition for such development. The adoption of new technologies in other case-study value chains has

a) led to a rapid increase in production of the commodity and in the scale of the value chain
b) enabled products to be processed to replace imports and expand domestic sales
c) allowed lost export markets to be re-established
d) enabled new high-value products to be manufactured viable on a small scale
e) made it possible for waste products to be turned into valuable goods.

Previous research in Kazakhstan has provided an evaluation of Kazakh and foreign farms and their implementation of certain technological improvements, especially as they pertain to tillage vs. no tillage and the use of herbicides. Unfortunately, the comparisons had too many changes in other variables to allow for concrete conclusions about tillage vs. no tillage. The conclusion that was drawn was that in the future, it is necessary to assist in reducing the costs of production equipment, herbicides, fertilizers, and plant protection products.

The proposed activities will support agricultural cooperatives to undertake the construction of post-harvest units (wholesale distribution center) for cleaning, drying, and storage at selected agricultural cooperatives.

The agricultural cooperatives will be required to meet strict criteria, such as their willingness and readiness to integrate climate-resilient and low carbon technologies at every stage of the green value chain.

New and upgraded storage units will aim to reduce post-harvest losses, improve the grain, oil and vegetable crops and its moisture content particularly in the winter season and ensure a better price by providing delivery flexibility to processors within the value chain. Storage units will be upgraded to take into consideration emerging climate conditions and potential climate extremes and their impacts (droughts, floods, pests).

Solar-powered driers will be introduced within the storage for ventilation and lighting and for powering control systems.

L. Improved Marketing

1. Support to farmer cooperatives

The issue of creating farmer cooperatives is extremely important and relevant. Farmers together are more likely to withstand all threats of economic, environmental and other shocks. The state program for the development of the agro-industrial complex has specially set up good conditions for subsidies to farmers associations or cooperatives. A lot of farmers come together in cooperatives in order to show a sufficient amount in the total and then bargain with the elevators with confidence. If a small farmer comes to the elevators, they will not even listen to him and will lower the price according to their own rules. When large volumes come from cooperatives, it is beneficial for elevators to establish cooperation on conditions that are favorable to everyone, immediately take volumes and start the sales process, and then immediately obtain new volumes.

Since 2012, Kostanay has been considered the leader in the production of flaxseed oil, here 5 farms have set up their own cooperative and for 1.5 million euros have established a new modern oil production plant. Now they are building a second one, for 12 farms, because the business turned out to be profitable. There is a demand for oil produced with new methods. Shops and buyers are more likely to buy cold-pressed sunflower oil, rather than that produced by roasting or thermal extraction at a temperature of 100-110 degrees, because the differences in chemical composition are huge. Of course, many producers benefit from thermal extraction, since productivity per tonne of seeds is much higher compared to cold extraction. Therefore, there is a need for the current project to demonstrate and promote green eco-technology for the production of cold pressed oil. In European countries, oil that is produced by thermal pressing is now completely banned, only cold pressed is accepted, Even China is gradually banning thermal processing and the US has already banned it.

2. Kazakh companies who want to be involved with the GCVC development

All the organizations listed below are interested in production and selling the improved wheat production. The major producers of flour over the northern regions have expressed their willingness to cooperate with the project.

JSC "Kostanaiskiy Flour" (LLP "Grain Industry"), TOO "Tobol-Agro", TOO "Asal" LLP, "M Vadis", LLP "Sarybai" LLP, MK "Roman", LLP "Kazmelmash" LLP, "Oriole." In South Kazakhstan region flour producers are TOO "Arai", LLP "Amangeldy" and LLP "Aysu holding." Karaganda oblast enterprises milling industry are: TOO "Jer Arna" JSC, "Bakery", LLP "Corporation Karaganda-Nan ", JSC" Bidai Nan ", LLP" Karaganda Flour. " In North Kazakhstan region operates 155 mills, of which the largest producers are: TOO "Sultan Elevator - the Mill-macaroni complex", LLP "Mamlyutsky flour Plant ", LLP" Kzyltusky flour mill.

3. Improved export marketing, including branding

The experience of many countries shows that supporting the national economy has work to create memorable image (brand) of the country in the world, as it is very important to maintain the competitive position of the national product in the world market as well as enhance its attractiveness for foreign investors, trading partners, and tourists. The development programs for national marketing, which can promote the national brand of Kazakhstan in the world that will enhance the competitiveness of Kazakhstan's economy in global markets.

As part of the in-country export development program one can use two main tools. Using various forms of technical assistance one can create the institutional structures necessary to ensure the export expansion of Kazakh company products in the global market. These forms of technical assistance include, in particular, grants and consulting assistance to implement new tools to support exports, assistance in establishing contacts with foreign trade missions, and training programs for agricultural crop producers. In turn, the program provides subsidies to entrepreneurial companies for expenses for their training in export activity that is part of the project entitled: "An introduction to export". This project includes providing subsidies to exporters beginning with a number of small and medium entrepreneurs to co-finance the cost of participation in the «Export Support Program" and providing subsidies to active exporters to cover the costs of co-promotional marketing activities in foreign markets. The aim of the project "An introduction to export" is to support export development by training personnel in the field of export activity. The maximum level of co-financing: 60% of the costs.

The purpose of the "Export Support Program" is to support export development by providing grants for the implementation of measures for the development of export markets:

- Study the situation in foreign markets,
- Partner search
- Secondment of experts from Kazakhstan to study the markets in place
- Measures to promote products to a new market
- Participation in exhibition activities abroad to improve existing tools that support exports.

The agricultural sector for exports requires a wide range of services. This can include integration of services related to the specific needs of clients domestically and internationally. As an example, the commodity producer in Kazakhstan may provide support services to a producing company/entity in another country. Another example is the problem of quality control of crops, and the solution offered by inclusion of insurance in export operations as they are related to grain cargoes. Export insurance insures that the quantity and quality of goods sent and/or received fully meet contract specifications and requirements of the sender.

4. Quality issues, including standards and specifications, as they relate to marketing

In planning the current project a review has been made of standards and specifications needed for grain/wheat and product marketing. This has included observations about guarantees that are needed to be provided to purchasers. These risks associated with these elements can often be covered by obtaining insurance coverage for sale and delivery of the product(s).

5. Experience in marketing from other parts of the world

The experience gained in agricultural value chains in other parts of the world will be used in planning and implementing NKL market improvements.

Case studies in member countries of ACP demonstrate the great diversity of various agricultural value chains, which differ in terms of the age, structure, and practices that they embody. For example, they vary markedly in terms of number of years since establishment in:

- physical characteristics of the commodity and the products derived from it
- number of producers and number of end-users
- inter-seasonal production stability
- number of sequential activities from the supply of inputs and services to farmers to the point of the final sale of the commodity and derived products
- the extent of the spatial coverage of each chain activity
- value of annual throughput
- the extent of vertical integration
- scale of processing
- weight and volume of the principal product relative to the raw material
- number of products resulting from processing and the value of each secondary product relative to that of the principal product
- means of price formation at each point where ownership changes.

Annex 16: Analysis of LDN incentives and financial instruments at PPG

Presented as a separate document

Annex 17: Demonstration projects for Output 2.2. on diversification and improved management of productive croplands, Output 2.3 on sustainable perennial crop systems

The project PPG experts, in consultation with the relevant stakeholders has selected 9 demonstration projects in three target oblasts (Akmola, Kostanai and Northen Kazakhstan), together covering an area of 485,522 hectares, of which 186,696.7 ha to demonstrate diversification and improved management of productive crops (Output 2.2), and 298,825.6 ha on sustainable perennial crop systems as diversification from unsustainable production of wheat and other crops (Output 2.3). Task Leader for Outcome 2 will supervise implementation of demonstration projects and appropriate use of GEF funds. The Task Leader will monitor relevant site-specific indicators to track effectiveness of each demonstration project. Results will be summarized and reported under RF Indicators 8 and 11, as well as will provide a basis for assessing economic, environmental and social impacts of demonstration sites for pilot ILUPs under Outcome 1.

Demonstration projects include the use of crop rotation systems and green fallow, restoration of abandoned lands through biological methods of sagebrush and pest control, increasing soil fertility, expansion of forage areas, application of moisture saving technologies including snow retention and efficient use of irrigation water, on-farm fodder production and creation of on-farm 'no waste' green value chains, switching to vegetable production as a way diversification, etc.

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 (financial, human, machinery, etc); alignment with relevant government strategies and programs to ensure complementary financing (government subsidies, KazAgro leasing or credit union financing; accessibility of pilot sites for hosting visits/ tours for exchange and dissemination of experience. The use of the GEF funding in selected demonstration projects is strategic allowing the farmer to overcome a critical barrier to switiching to new environmentally friendly approaches/practices in land management as well as for demonstrating an intergrated approach to land management seen as the project's overaching framework.

Selected agricultural farms (including LLPs) owing up to 50,000 ha of arable land in NKL are considered as medium-sized agricultural operators that act as an intermediary between small-scale farmers and large-scale farms as input suppliers, processing facilities and retailers. A farm of less than 1,000 ha is not considered commercially viable and thus not being the target of the project. Agricultural LLPs are more effective in terms of supply chains (grain elevators, logistics) and access to cheaper market products than small-scale producers. Also, to showcase the effectiveness of proposed LDN approaches often requires demonstration at a larger scale. Economic effects of proposed agrotechologies and practices can only be adequately analyzed and calculated at a medium-size farm (1,000-50,000 ha of a farmland), the envisaged end result of the demo projects.

Proposed demonstration sites serve as testing grounds not only for sustainable land and crop management but also as important elements of the project's work on integrated land use planning (Ouput 1.1), agroenvironmental incentives (Output 2.1), development and adoption of policies/regualtions to enable implementation of LDN principles throughout the NKL including efficient fiscal subsidies and financing (Output 1.3) as well as the functioning of the Green Wheat Platform. The project will perform assessment of economic, environmental and social impacts of demonstration sites as part of demo sites for pilot ILUPs under Outputs 2.2, 2.3, 2.4, analyze lessons learned to inform the next cycle of land use planning in selected rural okrugs as well as for replication and upscaling by oblast and district akimats in neighboring rural okrugs/districts and other oblast.

Each demonstration project is designed in such a way as to bring in additional committed co-financing in terms of ha coverage, meaning that medium and small farms operating in the area expressed willingness to follow the example of the lead farm, if successful, and apply proposed agrotechnologies and approaches at their farmlands but at their own costs. Thus, each demo project has a built-in component for replication of successful practices generating direct and indirect benefits to other farmers in the area.The project will use these demonstration projects as sites for Farmer Field Days, farmer exchange visits (both proved effective in building rapport with conventional farmers in the area), lessons learned and results will be included in the the program of extension services as 'live experiences' spreading new ways of doing business to other areas.

Information on pilot sites/ projects is presented in this annex in tabular format and includes basic background information on the site (location, ownership, etc.), indicators and quantitative results of demo projects, threats to the site, proposed demonstration activities, social and gender aspects. Each demonstration project will seek for ways of supporting or increasing meaningful inclusion of vulnerable groups such as people with disabilities, pensioners and members of low-income and large familie in the value chain, where possible.

Output 2.2. Demonstration projects on diversification and improved management of productive croplands totaling 186,696,7 ha

Akmola Oblast (1 site totaling 24,720 ha)

Demonstration project 1: Increasing grain crops productivity by applying solid seeding (without row-spacing)

Goal: Increase the grain crops productivity with the help of a highly efficient "Partner" sowing machine for close-growing crops.

Expected results:

- Increased grain crops productivity by means of solid seeding;
- Accumulation of snow (moisture) by using thick and dense stubble after application of the close-growing crop technology.

Location (village, administrative district, region)	Akmola region, Astrakhan district, Uzynkol village
Area, ha	Pilot site: 3,986 ha Committed co-financing: 20,734 ha
Land owner (s)/land user (s) (full name, phone numbers, email) Structure of the territory/agribusiness management	LLP "Tselina-Agro": 3,986 ha of farmlands, including 3,964 ha of arable lands. Nurzhan Nurbol Sarsentaiuly, +7 7761008211, tselina-agro@mail.ru LLP "Izbasarov i K": 20,734 ha of farmlands, Akmola region, Astrakhan district, Uzynkol village, Izbasarov Bugybay Kazizovich; +7779678727
Natural and climatic zone	Moderately arid steppe
Description of the pilot site: 1. Area of arable land, pastures, hayfields, number of cattle, forage land, etc., indicate only those relevant for this territory. 2. Grains productivity over the past 3-5 years. 3. Pasture productivity	1. The farm was created in 2015 and it is located on the territory of the Astrakhan district of the Akmola region. The total area of agricultural lands is 3,986 hectares, of which arable land is 3,964 hectares, reclaimed pastures are 22 hectares. There are no irrigated lands and perennial plantings. Its principal activity is crops farming, namely wheat. The farm owns a land plot reserved for storage facilities and a machinery maintenance workshop, a warehouse for products, a scale house and a field station. The machine and tractor fleet consists 8 combine harvesters, 9 tractors, 6 cars, 2 self-propelled sprayers and necessary sowing and tillage equipment. The farm employs 17 people. The farm applies a conventional tillage technology: cultivators and deep-tillers. 2. 2019 - 11.0 Cwt/ ha 2018 - 12.0 Cwt/ ha 2017 - 12.0 Cwt/ ha 2016 - 12.2 Cwt/ ha 2015 - 10.74 Cwt/ ha 3. Pastures and hayfields are used for wheat sowing as there is no livestock farming.
Description of the main environmental challenges and threats to agricultural landscapes and land resources (including low grain yields) encountered by the land user and to be addressed by the pilot project activities.	Low productivity of the raw spacing technology, small contents of snow (moisture) in dry years, strong evaporation of moisture from lands that are subject to row spacing, wind erosion, loss of humus - are the main agricultural problems of the region.
Proposed demonstration activities. Description of technologies/ practices that will be applied as part of the project	To ensure the sustainable and highly efficient grain crops production, it is necessary to apply and further fully switch to no-raw spacing crop sowing technology with the introduction of mineral fertilizers according to the maps generated as part of soil chemical surveys. To enable that,

Expected expenditures: GEF grant funds and co-financing from the agricultural producer	it is necessary to raise funds to buy the "Partner" sowing machine for close-growing crops, produced in Ukraine.This solution will increase the grain yield by an average of 5 Cwt/ ha and will not leave free space for evaporation of moisture and germination of weeds. The total cost of the machine: KZT 34,750,000 (USD 91,652.78), of which the Regional Department of Agriculture will finance about KZT 6,000,000 (USD 15,824.94) in the form of subsidies. The enterprise will cover the costs of diesel fuel and workers' wages. On average, the consumption of diesel fuel per 1 hectare is 8-9 liters. About 30,000 liters of diesel fuel will be needed for 3,000 hectares. The cost of one liter of diesel fuel is approximately KZT 195, 30,000 liters of diesel fuel will cost approximately KZT 5,850,000 (USD 15,429.32). The wages of workers: KZT 500 per hectare. For example, work on 1000 hectares will cost KZT 500,000. After processing 3,000 hectares, the workers' wages will be approximately KZT 1,500,000 (USD 4,000). The enterprise will also cover the costs of seeds and fertilizers transportation to the "Partner" sowing machine for close-growing crops, which will be approximately KZT 1,950,000 (USD 5,143.11). Total: GEF - USD 91,652.78. Subsidies – USD 15,824.94. Tselina-Agro LLP – USD 24,572.43.
Indicators and quantitative results of the pilot project, including the yield after the implementation of the proposed technologies/ practices and measures.	1. Stable, independent of precipitation, highly efficient production of grain and other agricultural crops. 2. Increased productivity of arable lands through the introduction of the close-growing crops technology. 3. Increased yield, by 4 - 5 Cwt/ ha, due to the sowing without raw spacing. Accumulation of winter precipitation by making the stubble thick and dense during harvesting.
Pilot project monitoring (indicate how and by whom the declared indicators and project results will be monitored)	Specialists (director, agronomist, chief engineer) of our farm together with UNDP/GEF experts and representatives of local authorities will participate in quarterly monitoring of the project progress and results.
Involvement of and benefits for women in the course of the project implementation	The project takes into account all gender aspects: equal gender rights in project implementation. Women will take an active part in the project implementation as project partners.
Involvement of vulnerable groups (if applicable in the project)	The project will seek for ways of supporting or increasing meaningful inclusion of vulnerable groups such as people with disabilities, pensioners and large familie in the value chain, where possible.
Involvement of youth and schoolchildren (if applicable in the project)	Not planned

Kostanai Oblast (3 sites totaling 126,359.7 ha)

Demonstration project 2: Sustainable production of organic grain and oil crops by means of weed control & accumulation of organic matter in the soil

Goal: Sustainable production of organic crops (grain and oilseeds).

Expected results:

- Reduced infestation by wheatgrass and sagebrush
- Accumulation of organic matter in the soil
- Improved fodder base for the livestock.

Location (village, administrative district, region)	Kostanay region, Fedorovsky district
Area, ha	22,178 ha is the area of the pilot plot 30,110 ha represent committed co-financing from the demo project partners: 8,500 ha - Troyana LLP, 14,000 ha - Pshenichnoye LLP, 3,000 ha - Zhanakhai LLP, 4,610 ha - Dmitriyevka farm.
Land owner (s)/land user (s) (full name, phone numbers, email) Structure of the territory/agribusiness management	1. Altyn-Zhas LLP: 3000 ha of farmlands, LLP Director: Sergeyev Anatoly Konstantinovich Tel: +7 7772206518 2. Uspenskoe farm -2000 ha Director: Sergeyev Anatoly Konstantinovich Tel: +7 7772206518 3. Kovrizhnyh farm - 5080 ha Director Kovrizhnyh Oleg Anatolyevich +7 7774431560 4. Metelitsa farm - 965 ha Director Zaverukha Vladimir Nikolayevich +7 7774160060 5. Kuzovaya farm - 1445 ha Director Zaverukha Vladimir Nikolayevich +7 7774160060 6. Kvarta farm - 2361 ha Kazakevich Maxim Anatolyevich +7 7779983588 7. Bekseitov farm -5327 ha Bekseitov Aidarbek Zhumagaziyevich +7 7773938650 8. Chevelev farm -2000 ha +7 747 4308069 9. Aldamar Agro Export LLP Filatov Alexander Andreyevich +7 708 4946535 10. Aldamar LLP Lopukhin Vadim Vladimirovich +7 777 3045068 The Association of Organic Agriculture Lopukhin Vadim Vladimirovich +7 777 3045068
Natural and climatic zone	Forest steppe, ordinary chernozem
Description of the pilot site: 1. Area of arable land, pastures, hayfields, number of cattle, forage land, etc., indicate only those	The area of arable land is: Altyn-Zhas LLP - 3000 ha, Uspenskoye farm - 2000 ha, Kovrizhnyh farm - 3600 ha, Metelitsa farm - 629 hectares, Kuzovaya farm - 1419 ha, Kvarta farm - 2027 ha, Bekseitov farm- 4665 ha,

relevant for this territory. 2. Grains productivity over the past 3-5 years. 3. Pasture productivity	Chevelev farm - 2000 ha. The pasture area is: Kovrizhnyh farm - 1480 ha, Metelitsa farm - 336 ha, Kuzovaya farm - 26 ha, Kvarta farm - 333 hectares, Bekseitov farm - 662 ha. Grain crops productivity over the past 3-5 years has been 10-12 Cwt/ ha on average. Pasture productivity is 4-5 Cwt/ ha.
Description of the main environmental challenges and threats to agricultural landscapes and land resources (including low grain yields) encountered by the land user and to be addressed by the pilot project activities.	Farms struggle with the following problems: • Fields infestation with sagebrush and wheatgrass which negatively affects the quantity and quality of crop yields. • Formation of alkaline spots, inundated areas on the fields. • Diminishing soil fertility and productivity. • Pasture depletion. Arable land productivity is low due to monoculture cultivation. The imbalance in crops and livestock production in the rural country, low productivity and unstable grain production, livestock population growth in the district, shortage of perennial grasses for livestock farming; degradation of agricultural lands (agrolandscapes), arable lands, forage lands, erosion, loss of humus are the main agricultural problems in the region.
Proposed demonstration activities. Description of technologies/ practices that will be applied as part of the project Expected expenditures: GEF grant funds and co-financing from the agricultural producer	1. To remove wheatgrass and sagebrush in the organic farming system, additional mechanical treatments are required on the area of about 5,000 ha. The mechanical treatments against these weeds include soil cultivating, disc plowing and harrowing. It is necessary to do such treatments for two consecutive years because other farms' experience shows that it is impossible to eradicate wheatgrass in one year. The average cost will be USD 25 per hectare (to buy fuels and lubricants). The total cost of treatments will be USD 125,000, of which 50% or USD 62,500 to be financed by the farms, and the same amount of USD 62,500 to be financed by the GEF grant. *2.* Sowing of perennial grasses, use of green manure fallows, intermediate and binary crops (vetch, sweet clover, mustard, rape) will be used to improve soil fertility, increase crops productivity and neutralize alkaline spots. The enterprise will sow sweet clover and perennial grasses on lands unsuitable for grain crops, on its own. Costs of sowing with disk coulters (two units), fuels and lubricants 7-8 l/ ha, transportation of fuels and lubricants, seeds, human resources will be paid by us. Total costs are approximately USD 75/ ha = USD 75,000. GEF funds will be used to buy sweet clover seeds and perennial grasses, at the rate of 12-14 kg/ ha, price of KZT 700/ kg. The total need for 1,000 ha is 12-14 tons. The total cost is KZT 9,800,000. TOTAL in USD: 37,776. LEA participation will subside the purchase of elite seeds and 1st reproduction seeds. 3. Preparation of a line for flax straw processing for the production of industrial fiber. The total cost can be USD 200,000. Troyana LLP is ready to pay 50% of the cost – USD 100,000. GEF will provide 40,000 USD as co-financing of the cost, remaining to be subsidized by the local authorities 4. Preparation of a line for flax straw processing for the production of industrial fiber. The total cost can be USD 200,000. Uspenskoye Farm is ready to pay 50% of the cost – USD 100,000. GEF will provide 40,000 USD as co-financing of the cost, remaining to be subsidized by the local authorities. Total: GEF – USD 180,500; Association of Organic Farming and farms of Fedorovskiy rayon – USD 337,500. Estimated costs cover 2 yrs of project implementation.

Indicators and quantitative results of the pilot project, including the yield after the implementation of the proposed technologies/ practices and measures.	1. Increasing the average grain yield -by 15%. Increasing productivity of pastures and hayfields -by 20% and higher. 2. Increasing productivity of low-productive arable lands, additional output of the sweet clover green mass - 50 Cwt/ ha, accumulation of biological nitrogen thus reducing the consumption of mineral nitrogen and stabilizing crop rotation. 3. Processing of flax straw by the farm and obtaining the additional product - industrial fiber - with the output of at least 200 tons annually.
Pilot project monitoring (indicate how and by whom the declared indicators and project results will be monitored)	The management of LLPs and farms and the "Association of Organic Agriculture" will monitor the progress and results of the project.
Involvement of and benefits for women in the course of the project implementation	The project expects to involve 40 women of the Fedorovsky district. To ensure women's active involvement in demonstration projects and sharing benefits, the project will implement the following activities: • Fostering cooperation between women in the district and non-governmental women's organizations in the district and the region, and having joint round tables and seminars to raise additional funding for the development of small businesses of rural women. • Organization of training courses for farm and minifarm managers, including women, on agricultural technologies and practices. • Organization of training courses for women on the production of folk art supplies (carpets, clothes, embroidery, etc.) and food products (milk, cheese, etc.) and facilitation of women participation in project activities at the county, district and regional level. • Involving women and women's organizations in pilot projects monitoring and evaluation as well as good practices dissemination in neighboring rural districts.
Involvement of vulnerable groups (if applicable in the project)	The project will seek for ways of supporting or increasing meaningful inclusion of vulnerable groups in the Fedorovsky district such as people with disabilities, pensioners and large familie in the value chain where possible.
Involvement of youth and schoolchildren (if applicable in the project)	Project activities are expected to involve rural youth - 20 people

Demonstration project 3: Sustainable grain production including processing of by-products

Goal: Sustainable farming with the conservation of natural ecosystems of the Uzunkol district.

Expected results:

- conservation of soil fertility;
- introduction of diversified crop rotation;
- flax straw processing to produce the industrial fiber.

Location (village, administrative district, region)	Kostanay region, Uzunkol district, Yershovka village
Area, ha	10,500 ha – pilot site 23,050 ha – committed co-financing of demo project partners, including 10,000 ha - Kuibyshevskoe Agro LLP, 7,000 ha - Abai Agro 2017 LLP, 1,100 ha – Miras farm, 1,500 ha - Obagan Auyly farm, 1,000 ha - Karabayev A.K. farm, 2,000 ha - Nesterenko P.G. farm, 450 ha - Amanbai LLP.
Land owner (s)/land user (s) (full name, phone numbers, email) Structure of the territory/agribusiness management	Yershovskoe-2 LLP: 11,000 ha of farmlands LLP Director: Agaydarov Sabit Sadykovich, tel. +77471948351 LLP Deputy Director: Agaydarov Olzhas Sabitovich, tel. +77477888929, +77053299870
Natural and climatic zone	Forest steppe, ordinary chernozem
Description of the pilot site: 1. Area of arable land, pastures, hayfields, number of cattle, forage land, etc., indicate only those relevant for this territory. 2. Grains productivity over the past 3-5 years. 3. Pasture productivity	The area of arable lands is 10,500 hectares. In 2019 wheat fields were 8,100 ha, barley - 220 ha, peas - 90 ha, flax - 900 ha. Pastures occupy 500 ha. The farm does not own any livestock. Local population has got livestock in possession. Grain crops productivity over the past 3-5 years was 14-16 Cwt/ ha on average. Pasture productivity was about 5 Cwt/ ha on average. There are numerous birch stands and lakes on the farm's territory. The farm has a border with the "Uzunkol Forestry Institution" CSI.
Description of the main environmental challenges and threats to agricultural landscapes and land resources (including low grain yields) encountered by the land user and to be addressed by the pilot project activities.	Farms struggle with the following problems: • Diminishing soil fertility and unstable productivity in different years • Infestation by sagebrush and wheatgrass, spread of pests and plant diseases which negatively affects the quantity and quality of the crops. • Formation of inundated areas on the fields • Difficulties in harvesting in the autumn due to frequent rainfall in the region. •Intensive use of arable land results in a gradual loss of soil fertility, accumulation of weed seeds, pests and crop pathogens. •Diversification of crop production requires new knowledge and skills, technical means and a different infrastructure. • Flax straw residues in the fields are decomposition-resistant and they can be used as a raw material for industrial fiber production and fuel.
Proposed demonstration activities.	Several measures can be undertaken to improve soil fertility and increase the efficiency of agricultural enterprises:

Description of technologies/ practices that will be applied as part of the project Expected expenditures: GEF grant funds and co-financing from the agricultural producer	1. Sowing legumes (lentils, vetch, soybeans). Using the same crops in green manure fallows as intermediate and/ or binary crops. 70 tons of seeds at a price of USD 400/ ton are needed to sow 500 ha of lentils. In total we need USD 28,000 of GEF grant funds to purchase lentil seeds. 25 tons of seeds at a price of 265 USD/ ton are needed to sow 500 ha of vetch. In total USD 6,625 are needed to purchase vetch seeds, at the farm's expense. 5 tons of seeds at a price of 670 USD/ ton are needed for soybean sowing. In total USD 3,550 are needed to buy soybean seeds, at the farm's expense. The costs of sowing 1,050 ha of legumes, fuel and lubricants, salary of machine operators, depreciation and repair of machinery in the amount of USD 105,000 will be covered by the farm. There is no LEA participation. 2. The introduction of mineral and/ or organic fertilizers (both into the soil and during foliar processing). It requires 60 tons of ammophos at the price of 530 USD/ ton. In total, the purchase of ammophos nitrogen-phosphorus fertilizer will cost USD 31,800. LEA will subsidize the purchase of ammophos nitrogen-phosphorus fertilizer in the amount of 15,000. The remaining amount of USD 16,800 will be paid by the farm. 3. Preparation of a flax straw processing line for the production of industrial fiber and/ or fuel. The total cost may be USD 200,000. The farm is ready to pay 50% of the cost – USD 100,000. GEF co-financing is needed to pay another 50% of the cost - 100,000. Total: GEF – USD 123,000; Akimat – USD 15,000; Farm – USD 131,775. Estimated costs cover 2 yrs of project implementation
Indicators and quantitative results of the pilot project, including the yield after the implementation of the proposed technologies/ practices and measures.	1. Improving the productivity of arable lands, additional output in the form of lentil - at least 8 Cwt/ ha, vetch - at least 7 Cwt/ ha, soybeans - at least 8 Cwt/ ha, accumulation of biological nitrogen, thus reducing the consumption of mineral nitrogen and stabilizing crop rotation. 2. Increasing the average grain yield by 15%. 3. Processing of flax straw by the farm and obtaining the additional product - industrial fiber and/or fuel pellets - with the output of at least 200 tons annually after the launch of the processing line.
Pilot project monitoring (indicate how and by whom the declared indicators and project results will be monitored)	The management of LLPs and farms and local executive authorities will monitor the progress and results of the project.
Involvement of and benefits for women in the course of the project implementation	The project expects to involve 10 women of the Uzunkol district. To ensure women's active involvement in demonstration projects and sharing benefits, the project will implement the following activities: Fostering cooperation between women in the district and non-governmental women's organizations in the district and the region, and having joint round tables and seminars to raise additional funding for the development of small businesses of rural women. Organization of training courses for farm and minifarm managers, including women, on agricultural technologies and practices. Involving women and women's organizations in pilot projects monitoring and evaluation as well as good practices dissemination in neighboring rural counties.
Involvement of vulnerable groups (if applicable in the project)	The project will seek for ways of supporting or increasing meaningful inclusion of vulnerable groups in the Uzunkol district such as people with disabilities, pensioners and large familie in the value chain, where possible.

Involvement of youth and schoolchildren (if applicable in the project)	Project activities are expected to involve rural youth - 20 people

Demonstration project 4: Increasing crop yields through crop rotation, meltwater retention and use

Goal: Deepening and expanding the adjacent pond for better meltwater retention for its further use for irrigation.

Expected results:

- Increased grain crops productivity through the sufficient water supply and crop rotation;
- Accumulation of snow (moisture) by using a stripper header for harvesting.

Location (village, administrative district, region)	Kostanay region, Naurzum district, Burevestnik village.
Area, ha	7,321.7 ha (direct impact on 5,995 ha). 33,200 ha – committed co-financing: Burevestnik-Agro LLP: 30,000 ha, Kryachkin N.M. farm: 1600 ha Utebaev N.A. ha: 1600 ha.
Land owner (s)/land user (s) (full name, phone numbers, email) Structure of the territory/agribusiness management	Koshkodan S.I. farm: 6,086.3 ha of farmlands, including 4,762 ha of arable lands. Koshkodan Sergey Ivanovich, +7 7775816392, koschkodan@mail.ru Altyn Masak farm: 1,235.4 ha of farmlands, including 1,233 ha of arable lands.
Natural and climatic zone	Dry steppe
Description of the pilot site: 1. Area of arable land, pastures, hayfields, number of cattle, forage land, etc., indicate only those relevant for this territory. 2. Grains productivity over the past 3-5 years. 3. Pasture productivity	1. The farm was founded in 2003 and it is located on the territory of the Naurzum and Zhangildy districts of the Kostanai region. The total area of farmlands is 6,086.3 ha, of which arable land is 4,762 ha, pasture – 1,291 ha, others - 33.3 ha. There are no irrigated lands and perennial plantings. The farm's primary activity is cultivation of crops - wheat, safflower, chickpeas. The farm owns a land plot reserved for storage facilities and a machine maintenance workshop, a warehouse for products, a scale house, a field station. The machine and tractor fleet consists of 8 combine harvesters, 9 tractors, 5 cars, a self-propelled sprayer and the necessary sowing and tillage equipment. The farm employs 12 people. The farm uses the minimum tillage technology with crop rotation: wheat, chickpeas, wheat, safflower, safflower. 2. 2019 - 2.85 Cwt/ ha 2018 - 4.61 Cwt/ ha 2017 - 11.15 Cwt/ ha 2016 - 18.38 Cwt/ ha 2015 - 10.74 Cwt/ ha 3. Pastures and hayfields: old-age grass crops with a low productivity. Approximately 0.5-1 Cwt/ ha.
Description of the main environmental challenges and threats to agricultural landscapes and land resources (including low grain yields) encountered by the land user and to be addressed by the pilot project activities.	Low productivity and unsustainable grain crops production due to the prevalence of wheat cultivation and moisture deficit (the annual precipitation in our region is below 200 mm), degradation of farmlands (agrolandscapes), arable and forage lands, erosion, loss of humus are the main problems of the region's agriculture. The root causes of the problems: The enterprise is located in the dry steppe zone with the annual precipitation below 200 mm. The summer rainfall is very low. There is soil erosion due to high solar activity and frequent winds in the absence of a vegetation cover. The root causes of the above problems are climate features and monoculture cultivation.
Proposed demonstration activities. Description of technologies/ practices	In order to address these problems, we plan the following:

that will be applied as part of the project Expected expenditures: GEF grant funds and co-financing from the agricultural producer	1. To arrange the regular irrigation, for sustainable production of grain crops on 100 hectares of arable lands. To enable that, it is necessary to deepen and expand the adjacent pond for better accumulation of meltwaters, so that additional accumulated water can be used for arable lands irrigation. GEF will finance the purchase of an irrigation plant in the amount of USD 35,897. The local akimat will provide subsidies in the amount of USD 15,385. The farm will cover the costs of fuel and lubricants, land lease, agricultural machinery and direct costs of excavation works to deepen and expand the pond, as well as transportation of organic fertilizers – bottom sediments- to the fields. The total contribution of the farm will be USD 65,000. 2. To preserve the soil fertility and increase the arable lands profitability, introduce crop rotation on the entire area - wheat, chickpeas, wheat, safflower - which will stop the unilateral intake of nutrients, reduce the pests and diseases burden, accumulate nitrogen in the soil, increase productivity by benefitting from a favorable predecessor. GEF will finance the purchase of elite seeds of chickpea and safflower in the amount of USD 29,050. The local akimat will provide subsidies in the amount of USD 12,450. The farm will cover expenses for fuel and lubricants, land lease, agricultural machinery and direct costs for sowing chickpeas on 100 ha and safflower on 400 ha. The total contribution of the farm will be USD 115,377. 3. To use stripper headers for wheat and safflower harvesting, in order to keep the stubble high so that it accumulates more snow and moisture. GEF will finance the purchase of two stripper headers with a width of 6.7 meters in the amount of USD 41,796. The local akimat will provide subsidies in the amount of USD 13,931. The farm will cover the costs of two Esil-740 combine harvesters. The total contribution of the farm will be USD 246,154. Total: GEF – USD 106,743; Akimat – USD 41,766; Farm – USD 426,531.
Indicators and quantitative results of the pilot project, including the yield after the implementation of the proposed technologies/ practices and measures.	1. Stable, regardless of precipitation, production of grain and other agricultural crops on the irrigated arable lands, increasing the yield by 80% and higher, in comparison with the rainfed plot. 2. Increasing the arable lands productivity by 20% and higher through the introduction of a regular crop rotation - wheat, chickpeas, wheat, safflower, safflower. 3. Increasing the arable lands fertility through the introduction of organic fertilizers - bottom sediments - obtained during the expansion and deepening of the pond. 4. Increasing the yield by 2–4 Cwt/ha through better accumulation of winter precipitation by the high stubble as a result of harvesting with stripper headers. 5. More comfortable conditions will be created by the larger water surface for migratory birds - swans, cranes, flamingos, pelicans and other wild birds from the Naurzum reserve, who have chosen our pond for their regular nesting in spring and autumn.
Pilot project monitoring (indicate how and by whom the declared indicators and project results will be monitored)	Members of targeted farms together with UNDP/GEF experts and representatives of local authorities will participate in quarterly monitoring of the project progress and results
Involvement of and benefits for women in the course of the project implementation	The project is gender sensitive: it ensures equal gender rights in the course of production and distribution of products. The director of the Altyn Masak farm is Natalia Koshkodan.
Involvement of vulnerable groups (if applicable in the project)	The project will seek for ways of supporting or increasing meaningful inclusion of vulnerable groups in the Burevestnik village such as people with disabilities, pensioners and large familie in the value chain, where possible.
Involvement of youth and	Not planned

schoolchildren (if applicable in the project)	

Northern Kazakhstan Oblast (2 sites totaling 35,617 ha)

Demonstration project 5: Sustainable use of local lakes for irrigated vegetable production and livestock watering

Goal: Using local basins to increase land productivity, livestock watering.

Expected results:

- Increasing crop (potatoes, carrots, beetroots) productivity by using irrigated water;
- Year-round livestock watering from a local basin
- Preventing spring flooding of farm fields

Location (village, administrative district, region)	North Kazakhstan region, Akkayinsky district, Poltavka village.
Area, ha	Pilot plot: 2,062 ha (direct impact on 1,688 ha), Beibars Agro LLP Committed co-financing: 14,496 ha, Poltavskoye LLP
Land owner (s)/land user (s) (full name, phone numbers, email) Structure of the territory/agribusiness management	Beibars Agro LLP: 2,062 ha of farmlands, including 1,688 ha of arable lands, 1,306 ha of fallow lands. Zikirin Erlan Eltayevich, +7 777 319 99 94, Erlan100@list.ru Poltavskoye LLP: 14,496 ha of farmlands
Natural and climatic zone	Forest steppe
Description of the pilot site: 1. Area of arable land, pastures, hayfields, number of cattle, forage land, etc., indicate only those relevant for this territory. 2. Grains productivity over the past 3-5 years. 3. Pasture productivity	1. The farm is located on the territory of Akkayinsky district, North Kazakhstan region. The total area of farmlands is 2,062 ha, of which arable lands are 1,688 ha, fallow lands are 1,306 ha, and wheat is 756 ha. There are no irrigated lands and perennial plantings. The farm's principal activity is crops cultivation. Cultivated crops - wheat. The LLP does not own any storage facilities or machinery. It has the rental fleet and a livestock complex, cattle. The farm staff employs 4 people. 2. Wheat yield 2019 - 23 Cwt/ha 2018 - 15 Cwt/ha 2017 - 20 Cwt/ha 2016 - 17 Cwt/ha 2015 - 17 Cwt/ha 3. Pasture productivity is average. We sow forage crops: perennial herbs, sainfoin, brome.
Description of the main environmental challenges and threats to agricultural landscapes and land resources (including low grain yields) encountered by the land user and to be addressed by the pilot project activities.	The farm is facing the following problems: 1. Low productivity due to lack of productive moisture (the precipitation rate in our region is 350 mm). There is soil erosion due to high solar activity and frequent winds in the absence of a vegetation cover. Continuous removal of nutrients from the soil without substantial replenishment by the organic matter and mineral fertilizers. 2. Due to meltwaters the water level of the local basin, located in Poltavka village, rises and causes flooding in residential buildings. 3. A high purchase price of water for industrial consumption.
Proposed demonstration activities.	In order to address these problems, we plan the following:

Description of technologies/ practices that will be applied as part of the project Expected expenditures: GEF grant funds and co-financing from the agricultural producer	1. Select a plot adjacent to the lake, with the area of 200 ha, for irrigation of crops such as potatoes, carrots, beet-roots. We plan to increase the crops yield on this area through the irrigation, using water from the basin. Water will be taken by a mobile diesel pumping station, for the acquisition of which we plan to receive funding from the GEF in the amount of USD 3,300. It is necessary to produce a storage tank and arrange water drainage to the irrigated area. To do that, the GEF will finance the purchase of mounted excavator attachments in the amount of USD 22,631 for the John Deere 6135B tractor (acquired in 2019) at a price of USD 51,600. Subsidies in the amount of USD 5,657 will be received for this equipment. Beibars Agro LLP will cover other expenses: creation of the drainage canal and storage tank (salary, fuel, lubricants, equipment and land lease) – USD 81,169. 2. To purchase a container-type treatment facility and install the equipment in the livestock complex adjacent to the lake - in the amount of USD 55,300 (to be financed by the GEF). The LLP will cover the costs associated with the connection to the livestock complex – USD 28,947. Total: GEF – USD 81,231, Akimat – USD 5,657, LLP – USD 110,116.
Indicators and quantitative results of the pilot project, including the yield after the implementation of the proposed technologies/ practices and measures.	Our average precipitation rate is currently 350 mm. The potato yield at a given precipitation rate is 200 Cwt per hectare. Should the irrigation be arranged, we can double the potato yield, i.e. bring to 400 Cwt per hectare. If the above work is done, water for industrial consumption will become cheaper. For example, we are currently purchasing water at the price of KZT 750 per cubic meter. Should we have our own water, costs will decrease accordingly. The livestock population is currently 1,200 heads. There will be a possibility of year-round livestock watering, resulting it its productivity increase by 15%.
Pilot project monitoring (indicate how and by whom the declared indicators and project results will be monitored)	Monitoring will be conducted by shareholders of Beibars Agro LLP together with representatives of local executive authorities.
Involvement of and benefits for women in the course of the project implementation	Additional jobs for women will be created in the livestock and vegetables sectors.
Involvement of vulnerable groups (if applicable in the project)	After the launch of this project new jobs will be opened to be filled on a priority basis by people with disabilities (whose disabilities allow to do this work), pensioners, large families and low-income families.
Involvement of youth and schoolchildren (if applicable in the project)	Not planned

Demonstration project 6: Increasing crop yield through improved drainage of farm fields, control of weed and shrubs infestation

Goal: Increased crop yield at farm fields subject to seasonal flooding.

Expected results:

- Increased crop productivity through irrigation of farm fields;
- Prevention spring flooding on agricultural lands;
- Prevention of waterlogging at farm fields.

Location (village, administrative district, region)	North Kazakhstan region, Zhambyl district, Kazanka village.
Area, ha	Pilot area: 3,748 ha Committed co-fiancing: 15,311 ha
Land owner (s)/land user (s) (full name, phone numbers, email) Structure of the territory/agribusiness management	Kyzyl Agro LLP: 3,748 ha of farmlands, including 3,098 ha of arable lands, 650 ha of fallow lands. Voropaev Vladimir Sergeevich, +79620409099, 8 715 44-52606, nordexportkz@gmail.com Zhambyl Bidai LLP: 5,370 ha of farmlands, North Kazakhstan region, Zhambyl district, Presnovka village, director - Kuanyshev Marat Sultanovich, 87715414999 Agrotehnika Zhambyl LLP: 9,941 ha of farmlands, North Kazakhstan region, Zhambyl district, Presnovka village, director – Potyakin Igor Vyacheslavovich, 87058909090
Natural and climatic zone	Forest steppe
Description of the pilot site: 1. Area of arable land, pastures, hayfields, number of cattle, forage land, etc., indicate only those relevant for this territory. 2. Grains productivity over the past 3-5 years. 3. Pasture productivity	1. The farm is located in the Zhambyl district, North Kazakhstan region. The total area of agricultural lands is 3,748 ha, of which 3,098 ha are arable lands, 650 ha are fallow lands. The farm's principal activity is crops cultivation. Crops are wheat, barley, rapeseed, flax, lentils. 2. Productivity 2019 - 22 Cwt/ha 2018 - 16 Cwt/ha 2017 - 21 Cwt/ha 2016 - 16 Cwt/ha 2015 - 17 Cwt/ha 3. Pastures productivity is not high - the average hay yield is 6 Cwt/ ha, due to shrubs infestation on pastures.
Description of the main environmental challenges and threats to agricultural landscapes and land resources (including low grain yields) encountered by the land user and to be addressed by the pilot project activities.	The farm is facing the following problems: 1. The waterlogging is observed due to spring flooding on agricultural lands, the area of usable lands decreases. 2. A large number of alkaline spots have been observed on the fields lately. The alleged causes of their appearance: soil compaction and increased carbonate content in the soil, their rise with groundwater. 3. A large number of lakes are located near the farmlands, their water was used for soil chemical treatment, now almost all of them have become salty. So, there is a shortage of water for soil treatment. The effect of chemicals - improving soil fertility and crop care - is diminished due to the inadequate quality of water used for the agents' working solutions.

	4. Shrubs infestation on pastures and arable lands due to the heavy rainfall and fast-growing shrubs. Another reason for that is soil tillage, timing and quality of which does not meet agricultural requirements.
Proposed demonstration activities. Description of technologies/ practices that will be applied as part of the project Expected expenditures: GEF grant funds and co-financing from the agricultural producer	1. To perform deep plowing on flooded lands -to a depth of 40-50 cm- by as a deep-tiller or chisel plow. This will loosen the compacted layer and increase the moisture content in the soil. The GEF will partially (75%) finance the purchase of the John Deere 2720 deep-tiller in the amount of USD 82,500; the local akimat will provide subsidies (25%) in the amount of USD 27,500. The LLP will cover the costs of operating the agricultural machinery and mounted attachments, fuels and lubricants, direct costs in the amount of USD 15,000. 2. To restore the lands affected by salinization, we will sow perennial grasses and apply biological agents based on bacteria, which composition includes the selicate-destroying bacteria, helping not only to restore the soil's optimal physicochemical composition, but also to increase its fertility. To do this, we will use such biological products as: "Ecostern" at a rate of 1 l/ ha which allows to restore the optimal soil structure and improve it. Also we will use the biological product "Biocomplex-BTU BIO-NPK for soil" at a rate of 5 l/ ha which contains selicate-destroying bacteria and bacteria that can increase soil productivity, which will drive the stable crop yield and lower salinity of fields. The LLP will cover the costs of agents, operation of the agricultural machinery and mounted attachments, fuels and lubricants, direct costs. The total contribution of the LLP will be USD 20,000. 3. To use the water from the basins, apply biological softeners and neutralizers. (*No funding required*). 4. To combat shrubs infestation, use moldboard plowing and deep plowing in order to destroy the shrubs' roots. The GEF will partially (75%) finance the purchase of the DEMONIO rotary mulcher in the amount of USD 60,750, the local akimat will provide subsidies (25%) in the amount of USD 20,250. The LLP will cover the costs of operating the agricultural machinery and mounted attachments, fuels and lubricants, direct costs in the amount of USD 25,000. Total: GEF - USD 127,430; Akimat - USD 47,750; LLP – USD 60,000.
Indicators and quantitative results of the pilot project, including the yield after the implementation of the proposed technologies/ practices and measures.	1. Reducing the scale of flooding on agricultural lands and increasing the crop area by 100 ha. 2. Increasing productivity by 20% 3. Using neutralizers and water softeners to increase the effectiveness of agents and improve water suitability for agriculture. 4. Using deep plowing and moldboard plowing to increase the crops cultivation area, thereby increasing profits through the additional output of products. The area will increase by 200 ha.
Pilot project monitoring (indicate how and by whom the declared indicators and project results will be monitored)	Monitoring will performed by shareholders of Kyzyl Agro LLP together with representatives of the department /division of agriculture, local executive bodies.
Involvement of and benefits for women in the course of the project implementation	The project will offer its experiences and lessons learned to female-led farms from the Zhambyl district of Northern Kazakhstan Oblast
Involvement of vulnerable groups (if applicable in the project)	The project will seek for ways of supporting or increasing meaningful inclusion of vulnerable groups possible in the Kazanka village such as people with disabilities, pensioners and large families in the value chain, where possible.

Involvement of youth (if applicable in the project)	Not planned

Output 2.3. Demonstration projects on sustainable perennial crop systems as diversification totaling 298,825.6 ha

Akmola Oblasts (2 sites totaling 283,951.6 ha)

Demonstration project 7: Increasing the productivity of pastures, hayfields, alkaline soils, improving crop rotation, reclamation of inundated lands

Goals:

- Increasing the yield of perennial grasses by removing the hard-to-eradicate weeds (Sagebrush and other weeds) from the fields, soil slotting or grass undersowing;
- Sowing the salt-tolerant legume grasses (sweet clover) in low-productive alkaline soils. The territory of Kazakhstan has a large number of alkaline spots which are lands that are hardly suitable for grain growing;
- Increasing the economic efficiency of feed crop rotation by binary crops of winter rye and biennial sweet clover for silage;
- Increasing the productivity of inundated and flooded areas by sowing the awnless bromegrass and birds-foot trefoil for hay, instead of wild sedge which is unsuitable for feed;
- Accumulating the snow on arable lands in wintertime by using the Shelbourne stripper header.

Expected results:

- Removal of weeds from perennial grasses at hayfields and pastures, increasing the yield of perennial grasses, thus increasing the feed capacity per ha.
- Saturation of crop rotation with legume grasses, increasing the feed supply for the agricultural producer, agricultural use of low-productive lands and alkaline soils, accumulation of biological nitrogen up to 300 kg per ha;
- Introduction of winter rye mixed with biennial sweet clover, for silage and haylage, into the feed crop rotation to use the early springtime moisture more efficiently in the dry steppe zone;
- Winter snow accumulation on harvested stubble by stripping, using the Shelbourne stripper header, will help to accumulate more snow to ensure better wetting of the soil horizon, accumulate available moisture in the soil which will result in the higher yield.

Location (village, administrative district, region)	Akmola region, Tselinograd district, Rakhymzhan Koshkarbayev aul.
Area, ha	Pilot site: 32,696.6 ha (direct impact on 18,951.5 ha); Replication: 250,000 ha, the area of all agricultural enterprises of Tselinograd district, Akmola region
Land owner (s)/land user (s) (full name, phone numbers, email)	*EN-DALA LLP:* Poklonsky Mikhail Yevgenievich, 8 701 535 02 25, en-dala@mail.ru *Replication contact person*: First Deputy Akim of the Tselinograd District Zhantemirov Anash Sapiyevich 87015257898, 87472746233, 87165130104 – office phone number
Natural and climatic zone	Dry steppe
Description of the pilot site: 1. Area of arable land, pastures, hayfields, number of cattle, forage land, etc., indicate only those relevant for this territory. 2. Grains productivity over the past 3-5 years. 3. Pasture productivity	1. The farm is located on the territory of Tselinograd district, Akmola region. The total area of agricultural lands is 32,696.6 ha, of which arable lands are 18,951.5 ha, fallow lands are 4,583 ha, pastures and hayfields are 9,162.2 ha. There are no irrigated lands and perennial plantings. The main activities are crop cultivation and livestock farming. Cultivated crops are wheat, barley, flax, oats, millet, herbs. Livestock: cattle and horses. The enterprise owns 5 storage warehouses, an asphalt platform, a grain processing warehouse, machinery and tractors maintenance workshop, 2 scale houses, a spare parts warehouse, a livestock complex and a slaughter house. The machinery and tractor fleet consists of 15 combine harvesters (Claas Tucano 440 - 4 units, Tucano 430 - 4 units, John Deere W540 - 1 unit,

	John Deere W550 - 2 units, John Deere W660 - 1 unit, John Deere 9570 - 2 units, Case JH-AF2388 - 1 unit, Case 6140 -2 units), tractors- 16 units (John Deere 8335R - 2 units, John Deere 9430 - 1 unit, John Deere 7930 with front-end loader - 1 unit, John Deere 9530 - 2 units, Case Magnum MX - 8 units, Claas Arion 640 - 2 units), BIG PACK 890 balers - 1 unit, Comprina - 1 unit, sprayers - 3 units, Manitou loaders - 2 units, XCMG - 1 unit, wide-mounted harrows Degelman 7000 - 4 units, Condor 15001 seeder - 7 units, KAMAZ machines - 5 units, GAZ-3309 - 7 units, GAZ-52/53/6612 - 3 units, etc. The enterprise employs 100 permanent members of staff; over 20 people are hired on an ad-hoc basis for the periods of spring sowing campaign and harvesting. **2. Grains Productivity** 2019: wheat: 8,253 ha, 12.7 Cwt/ha; durum wheat: 974 ha, 18.1 Cwt/ha; barley: 1,713 ha, 13.2 Cwt/ha; oats: 406 ha, 14.4 Cwt/ha; flax: 2,214 ha. 5.6 Cwt/ha; 2018: wheat: 14,933 ha, 14 Cwt/ha; barley: 695 ha, 20 Cwt/ha; flax: 4,774 ha, 6 Cwt/ha; chickpeas: 210 ha, 5 Cwt/ha; 2017: wheat: 17,180 ha, 11 Cwt/ha; barley: 757 ha, 12.9 Cwt/ha; flax: 1,735 ha, 4 Cwt/ha; chickpeas: 58 ha, 6.3 Cwt/ha; 2016: wheat: 12,516 ha, 18.5 Cwt/ha; barley: 379 ha, 20.6 Cwt/ha; 2015: wheat: 9,801 ha, 12.9 Cwt/ha; barley: 347 ha, 21 Cwt/ha; **3. Pasture productivity** 5-10 Cwt/ha, very low.
Description of the main environmental challenges and threats to agricultural landscapes and land resources (including low grain yields) encountered by the land user and to be addressed by the pilot project activities.	The enterprise is facing the following challenges: 1. **Plots colonization by Sagebrush.** Sagebrush is an endemic species that displaces cultivated herbs resulting in a sharp decrease of the productivity per hectare. If it ends up in the mow grass, it degrades the feed quality of hay, possibly poisoning the livestock. Perennial herbs in their 5 or 6th year of life are classified as old-age and unproductive due to increased soil density, reduced oxygen availability and uptake of

	precipitation. The conventional approach was used to get rid of sagebrush and renew the grass stand: moldboard plowing or deep non-moldboard treatment, plus two or three treatments with heavy disc harrows and/or cultivators, which is expensive (fuel consumption, amortization of equipment, salary) and reduces the amount of organic substances in the soil. 2. ***Alkaline spots on the fields***. The territory of Kazakhstan is the bottom of the ancient Tethys sea. All soils of the Republic of Kazakhstan contain carbonates and salts. Ground waters are salty and bitterly salty. Alkaline spots are formed in arid and semi-arid conditions where the amount of precipitation is significantly lower than evaporation, which is typical for the steppes. A significant share of Kazakhstan's agricultural lands is more or less susceptible to salinization. We are "luckier" than others as there are more alkaline spots in our area and they are located in the south of the Akmola region. Sagebrush is more resilient to such conditions than perennial forage grasses, and it gradually displaces them. Alkaline lands give lower yields of traditional crops. The recommended crop for such soils is sweet clover, which is the plant most tolerant to salt. At the same time, it gives up to 200 Cwt of green mass with a protein content of up to 19%. 3. and 4. **Low supply of feeds for the development of livestock farming**. Since we are located in the dry steppe zone with a low lands productivity, the quality score (bonitet) of hayfields and pastures is 20 maximum, 10-12 on average. All perennial grasses are being displaced by the creeping sage plants. The sagebrush grows better in a drier climate. The problem is exacerbated by a lack of proper care of pastures and hayfields (top dressing, harrowing or slotting, control of weeds, grass sowing) and unrestricted grazing. Sowing winter rye mixed with the biennial sweet clover at inundated and flooded areas will provide feed supplies for further development of livestock farming, creation of jobs and production of goods with added value. 5. **Insufficient precipitation during the vegetation period**. The farm is located in the dry steppe zone with an annual precipitation of 250 ml, half of which falls as snow in winter. We cannot manage the amount of summer rainfall but we can "catch" a large amount of snow by stripper headers. High stripped stubble accumulates more snow and delivers more moisture to the soil in early spring.
Proposed demonstration activities. Description of technologies/ practices that will be applied as part of the project Expected expenditures: GEF grant funds and co-financing from the agricultural producer	1. The farm has small experimental fields where chemical treatment against Sagebrush was performed in 2018-19 with a strong herbicide - Dikamba (Syngenta) - with the complete eradication of Sagebrush confirmed in these areas. The farm used 1.5 l/ha of dicamba dicamba (as per the agrotechonological map that sets time, norms and methods of inputting all types of soil and plant protection including herbicides) twice during 1 season or during 2 seasons - once per season. . As a second step, slotting with the paraplows ЩН -4, ЩН -5-40 and others is planned. The row spacing is 70 cm. The slotting should not be performed at high speed. According to a conventional technology, plowing is needed for old-aged grasses to remove hard-to-eradicate weeds, in order to raise "black fallows". This entails moldboard plowing and two subsequent mechanical treatments at least, with the consumption of 25-45 l/ha of diesel fuel, big amounts of resources and energy. Proposed method of removing difficult weeds by treating them with 1.5 l/ha of Dicamba herbicide twice per season or once every 2 seasons will destruct the Sagebrush and other hard-to-eradicate weeds without plowing the perennial grass layer. This pilot plot will represent the baseline approach currently used by many

	farmers in the regions in controlling weeds. This baseline approach is subsidized by the government covering up to 70% of costs of mineral fertilizers including herbicides. 2. As an environmentall friendly alternative, biological ways of Sagebrush and weed control (instead of a very intensive chemical treatment) will be proposed. A study will be conducted to select a crop or several crops that could compete with the Sagebrush and other weeds on alkaline soils. Such crops could be sweet clover and Indian hemp (Apocynum), a herbaceous perennial plant that stratifies the soil and can be used to produce plant fiber. But the choice of a crop/crops should not be limited to only those listed here. Upon the results of the study, experimental fields that use the Sagebrush biological control methods will be created. A comparative analysis of the economic and environmental benefits of the two approaches will be carried out for the pilot plots. The results and recommendations will be presented in the form of a short report for distribution to farmers in the Tselinograd district and beyond, who face the problem of fields infestation with Sagebrush. Also, results of biological methods of weed control including economics will be shared with the regional akimat and at the Interministerial Task Force (Output 1.3); proposals will be drafted on how to structure government support for environmentally friendly methods. The GEF will finance a study to select crops for demonstration of the biological methods of weed control, purchase recommended planting stock, conduct monitoring and comparative analysis, and develop a booklet at a cost of USD 69,525. 1. Local executive authorities (LEA) will subsidize the purchase of the Dicamba herbicide in the same amount – USD 69,525. 2. The Agricultural producer will acquire fuel and lubricants, provide two self-propelled sprayers, organize works, water transportation, wages, meals for a total amount of USD 120,000. We will do sowing on alkaline soils, which is unsuitable for grain crops, of the annual and biannual sweet clover on our own. We will pay for the pre-sowing chemical treatment with self-propelled sprayers, 50 l/ha of spray solution, 2 l of glyphosate per ha, sowing by John Deere 8335R + seeder and Amazon Condor (2 units), fuels and lubricants 7-8 l/ha, fuels and lubricants, delivery of seeds, human resources. Total costs are approximately USD 75/ha = USD 75,000. GEF financing will be used to purchase sweet clover seeds, at the rate of 12-14 kg per ha, at a price of KZT 700 per kg. Total need for 1,000 ha is 12-14 tons. Total cost of seeds is KZT 9,800,000. Total cost in USD is 26,000. *No co-financing from LEA.* 3. Sweet clover sowing on alkaline soils will not only get 200 Cwt of green mass, but also will accumulate up to 300 kg of nitrogen per ha. The sweet clover is also an excellent rotation crop in a conventional technology for the production of grain crops in Kazakhstan. Also it loosens the soils naturally and helps avoid plowing with blade cultivators/ deep tiller, having a positive effect for the environment, saving fuel and lubricants and labor resources. The biggest challenge for the livestock farming in Kazakhstan is low feed supplies. The main reason is a *short vegetation period, low water availability and low temperatures.* Preparation of succulent feed is key for the dairy farm. Today's technology of sowing maize for silage implies: A) Acquisition of expensive maize hybrids (there is no maize seed breeding in Kazakhstan). B) Purchase of precision seeders (there is no production of seeders for maize sowing in Kazakhstan, and this means at least USD 200,000 of

	spending) and purchase of a CLAAS or DD type forage harvester (also not produced in Kazakhstan) costing EUR 300,000. We suggest binary sowing of succulent feeds of winter rye and biannual sweet clover by the grain seeders available in the enterprise, i.e. there are no additional costs of acquiring precision seeders. Moreover, winter rye and sweet clover seed production is a simple process that our company does on its own. To harvest succulent feeds of rye and sweet clover, we need the hay and forage equipment that we use for haymaking (already available), namely KRONE trimplexes (2 units) and two rakes. It is necessary to purchase a KRONE baler to pack the haylage - it picks, presses and wraps haylage in a film, costing EUR 80,000. At the same time, this feed has a better quality than the existing maize silage and it can be sown and harvested by the available hay and forage equipment. GEF financing will be used to acquire COMPRIMA baler at a price of USD 80,000. LEA will subsidize 25% of the cost of the acquired equipment: USD 20,000. The Agricultural producer will perform the pre-sowing chemical treatment with self-propelled sprayers, 50 l/ha of spraying solution, 2l/ha pf glyphosate, twice during the summer season, binary sowing of rye and sweet clover until August 30 of this year. In the following year we will mow green mass with Trimplex KRONE mowers, swath, pick and wrap the grass. Fuel and lubricants expenses, wages, packaging materials, operating costs will be covered by the LLP in the amount of USD 230,000 per 1,000 ha. 4. There are inundated lands on the territory of the agricultural producer which are flooded with melt water in spring and where natural swamp grasses grow. Swamp grasses are poorly eaten by cattle. We have developed a technology for sowing grasses in inundated lands: it can be done in July after drying - awnless bromegrass and birds-foot trefoil -which can survive the prolonged flooding and winter frost in the northern Kazakhstan. Sowing, proposed by the project, will take place after the flooding and drying of the inundated lands, with the AVATAR 6.16 SD disc coulter. In no case should the inundated soils be sown with shovels or chisels as it can lead to water erosion. The speed of flood water in spring is 6m/s, so our task is to sow the awnless bromegrass and birds-foot trefoil nearly without breaking the sod, in order to prevent water erosion and soil washing next spring. We do have seeds of awnless bromegrass and birds-foot trefoil, fuel and lubricants and human resources. It is necessary to purchase the coulter AVATAR, Horsh, 6.16 SD for EUR 102,000, with the help of GEF. LEA will subsidize 25% of the coulter's price: EUR 25,500. The Agricultural producer will mow the green mass of wild sedge, remove it from the site, purchase grass seeds, then sow seeds of awnless bromegrass and birds-foot trefoil on the area of 1,000 ha: USD 140,000. 5. Acquisition of 2 Shelbourne stripper headers with the stripping width of 7.2 m, at a price of USD 76,000 each. Total cost is USD 152,000. LEA will subsidize 25% of the cost: USD 38,000. The Agricultural producer will pay 50% of the cost: 76,000 USD and delivery from Europe to Kazakhstan, this is USD 9,000, as well as 5% customs fee: USD 7,600. TOTAL cost is USD 92,600. GEF financing will be used to pay for 25% of the stripper headers' cost: USD 38,000.

	GEF financing – 193,525 USD; En Dala LLP – 582,600 USD, Local authorities – 154,775 USD
Indicators and quantitative results of the pilot project, including the yield after the implementation of the proposed technologies/ practices and measures.	1. Increasing the productivity of hayfields and pastures by 30% and more. 2. Increasing the productivity of low-productive arable lands, additional output in a form of the sweet clover green mass: 50 Cwt/ ha, accumulation of biological nitrogen thus reducing the consumption of mineral nitrogen and stabilizing crop rotation. 3. Providing the livestock with succulent feeds with 15% decrease in the production cost. 4. Using low-productive inundated lands, harvesting high-quality feed with the feed yield increase by 20%. 5. Increasing the average yield of grain crops by 15%. Less field works in difficult winter periods thanks to snow retention.
Pilot project monitoring (indicate how and by whom the declared indicators and project results will be monitored)	LLP staff, along with representatives of local executive authorities and UNDP-GEF experts, will participate in monitoring of the project progress and results.
Involvement of and benefits for women in the course of the project implementation	When additional jobs appear, there will be an opportunity to hire unemployed women.
Involvement of vulnerable groups (if applicable in the project)	When new jobs appear, the leadership of the LLP will involve people from vulnerable groups.
Involvement of youth and schoolchildren (if applicable in the project)	Not planned

Demonstration project 8: Using modern technologies to reduce the influence of alkaline spots and weed control methods to increase the arable land productivity

Goals:

- Mitigate the effects of sagebrush and wheatgrass on the fields;
- Reduce the size and prevent the appearance of alkaline spots on the fields;
- Pasture fertilization.

Expected results:

- Perennial grasses, being key for land nutrition and its protection from negative effects, ensure the productivity and resilience of agricultural lands and pastures, contribute to improved soil fertility, increased yield and reduced land degradation.

Location (village, administrative district, region)	Akmola region, Shortandy district., Raevsky rural county, Bektau rural county, Novographskoye village
Area, ha	1,255 ha (of which 1,082 ha are arable lands)
Land owner (s)/land user (s) (full name, phone numbers, email) Structure of the territory/agribusiness management	Ayam-7 LLP: 1,255 hectares of farmland, including: arable lands - 1,082 hectares, pastures - 174 hectares Director of the LLP: Mukhamedyaev Almaz Yesengeldyevich Tel: 8-775-672-72-37 e-mail: too.ayam7@gmail.com
Natural and climatic zone	Dry steppe
Description of the pilot site: 1. Area of arable land, pastures, hayfields, number of cattle, forage land, etc., indicate only those relevant for this territory. 2. Grains productivity over the past 3-5 years. 3. Pasture productivity	The grain crops yield over the past 3-5 years has been on average 10-15 Cwt/ ha. Arable land productivity is low due to monoculture cultivation. The imbalance in crops and livestock production in the rural country, low productivity and unstable grain production, livestock population growth in the district, shortage of perennial grasses for livestock farming; degradation of agricultural lands (agrolandscapes), arable lands, forage lands, erosion, loss of humus are the main agricultural problems in the region.
Description of the main environmental challenges and threats to agricultural landscapes and land resources (including low grain yields) encountered by the land user and to be addressed by the pilot project activities.	1. ***Fields colonization by sagebrush and wheatgrass***. Conventional plowing methods were always used against the sagebrush; in 2016, Roundup Extra glyphosate was started to be used against the wheatgrass in the amount of 2 l/ha. The reason for the sagebrush appearance on our fields: a) unconscientious neighbors who do not use the technology properly. b) some of the fields were transferred to the state fund for the plantations of trees and shrubs growing in between rows of sagebrush and other weeds. c) it was not possible to completely remove wheatgrass, it was only possible to reduce its amount for 2 seasons. **2. *The appearance of alkaline spots on the fields.*** Productivity of these fields does not exceed 8-10 Cwt/ha, regardless of the amount of moisture. **3. *Low moisture availability at the onset of the spring sowing campaign*** resulting in a lack of moisture for the crops formation. **4. *Monoculture*** is one of the problems of our enterprise. Transition from grain crops to oilseeds, thereby diversifying crop rotation, cannot be done with the available equipment.
Proposed demonstration activities. Description of technologies/ practices that will be applied as part of the project Expected expenditures: GEF grant funds and co-financing from the agricultural producer	1. Within the framework of the demonstration project, for an effective biological control (instead of a very intensive chemical treatment), a study will be conducted to select a crop that could compete with the Sagebrush on alkaline soils. Such crops could be sweet clover and Indian hemp (Apocynum), a herbaceous perennial plant that stratifies the soil and can be used to produce plant fiber. Upon the results of the study, experimental fields that use the Sagebrush biological control methods will be created. The second experimental field will apply chemical

	treatments with glyphosate. The required treatment area is 1,000 ha. Consumption is 2 l/ ha as per agrotechonological map that defines timing methods, dosage and ways of inputting all types of land and plant protection materials. Weed eradication activities will be organized as follows: in order to perform two treatments in one season, the fields have to be converted into fallow lands. We are not able to convert 1 thousand hectares at once, so we will do it in stages. In 2020, we will convert 600 ha to fallow lands. For one treatment, we will need 1200 liters of glyphosate, and for the season- 2400. In mid-August we will sow a field with oats using the green manure fallow. That will facilitate the agent's aggressive effect on the soil, plus soil fertilization with nitrogen. In 2021 the remaining 400 hectares will be treated using the same method. In total, 4000 liters of the agent are needed. The GEF will finance a study to select crops for demonstration of the biological methods of weed control, purchase recommended planting stock, conduct monitoring and comparative analysis, and develop a booklet at a cost of. LLP & LEA will co-finance the purchase of chemical treatment. The LLP will acquire fuel and lubricants, provide a sprayer, water, food, and wages to workers for a total amount of USD 30,000. Also, the LLP will buy oat seeds and perform sowing on its own. 2. Testing a new (for us) technology to reduce the influence of alkaline spots by sowing the sweet clover. As a result. we expect to obtain a green mass, nitrogen accumulation in the soil and reduction of alkali spots on the fields.GEF will purchase sweet clover seeds in the amount of 3 tons at a price of KZT 700,000 per ton, the total amount will be KZT 2,100,000 (or USD 5,520). The LLP will do the rest on its own. 3. Acquisition of the Shelbourne stripper header, 7.2 meters stripping width. The total cost in the Republic of Kazakhstan is USD 86,000. Of them, GEF will finance USD 19,000, LEA will finance USD 19,000, LLP: USD 48,000. This stripper header will help to keep high stubble in the fields, which will serve as a good snow retainer, and as a result it will maintain a good moisture supply in the soil. Total: GEF - USD 54,520, LLP – USD 78,000, LEA – USD 49,000.
Indicators and quantitative results of the pilot project, including the yield after the implementation of the proposed technologies/ practices and measures.	Increasing grain productivity by approximately 4-5 Cwt due to the acquisition of a stripper header to retain more snow. Increasing the yield of green mass due to the sowing of sweet clover, which will also reduce the effect of alkaline spots.
Pilot project monitoring (indicate how and by whom the declared indicators and project results will be monitored)	The management of the LLP, along with the local executive authorities, will monitor the progress and results of the project
Involvement of and benefits for women in the course of the project implementation	Not planned
Involvement of vulnerable groups (if applicable in the project)	Assistance will be provided during the project to members of large and low-income families through employment.
Involvement of youth (if applicable in the project)	Not planned

Northern Kazakhstan Oblast (1 site totaling 14,874 ha)

Demonstration project 9: Improved on-farm fodder production thru introducing green fodder in crop rotation

Goal: To increase crop yields and better weed control on farm fields through compliance with agricultural technology.

Expected results:

- Increased outputs of hard (coarse) and succulent feed for higher livestock productivity

Location (village, administrative district, region)	North Kazakhstan region, Kyzylzhar district, Bolshaya Malyshka village
Area, ha	Pilot area: 2,874 ha Committed co-financing: 12,000 ha
Land owner (s)/land user (s) (full name, phone numbers, email) Structure of the territory/agribusiness management	Bolshemalyshenskoe LLP: 2874 ha of farmlands. including 1295 ha of arable lands. Project Coordinator - Gabdulin Ergali Zhartayevich 8-705-231-02-14 8-71538-35-5-64 Adil_usa@mail.ru Goncharovskoye LLP: 12,000 ha of farmlands, North Kazakhstan region, Kyzylzhar district, director - Daurenbekov Khabibula, 87771970959, 87773904150
Natural and climatic zone	Forest steppe
Description of the pilot site: 1. Area of arable land, pastures, hayfields, number of cattle, forage land, etc., indicate only those relevant for this territory. 2. Grains productivity over the past 3-5 years. 3. Pasture productivity	1. Of the 2,874 ha of farmlands of Bolshemalyshenskoye LLP, 1295 ha are arable lands, 1,508 ha are pastures, 71 ha are roads and lakes. Bolshemalyshenskoe LLP grows grain crops (wheat and barley). We also sow fodder crops. The regional center is the city of Petropavlovsk, located 25 km away from Bolshaya Malyshka village. So, there is a demand for livestock products (meat, milk) and grain crops. The farm has the breeder status and its cattle population increases every year. 2. 2019 - 15 Cwt/ha 2018 - 14 Cwt/ha 2017 - 14 Cwt/ha 2016 - 13 Cwt/ha 2015 - 14 Cwt/ha 3. However pasture productivity is very low.
Description of the main environmental challenges and threats to agricultural landscapes and land resources (including low grain yields) encountered by the land user and to be addressed by the pilot project activities.	1. ***Poor feed supply,*** due to low productivity of pastures, do not meet the demand for coarse and succulent feeds. The insufficient quantities of coarse and succulent feeds in the livestock's diet lead to its low productivity. We do sowing of fodder crops, however, extensive sowing technologies are applied (relying on natural soil fertility without the use, or very limited use, of fertilizers and other chemicals and applying tolerant varieties). Cattle grazing takes place on pastures near the farm, and therefore the grazing pressure exceeds an allowable limit which leads to pasture degradation. Pastures productivity is low due to the lack of funds for their surface improvement and reclamation, excessive grazing pressure, as well as a low quality score (bonitet) of land. Given that pastures do not provide sufficient feed for cattle rations, the

<table>
<tr><td></td><td>farm purchases additional coarse and succulent feed to comply with all technologies and increase its livestock population.

2. The lack of financial resources is a constraint to full compliance with modern agricultural technologies for arable land cultivation. Therefore, extensive and simplified technologies are being used nowadays. Failure to comply with agricultural technologies from year to year leads to soil infestation with weeds. So, a significant part of the arable land (16%) is infested by wheatgrass and covered by alkaline spots (8%), being a reason for a decrease in the grain crops yield.</td></tr>
<tr><td>Proposed demonstration activities.

Description of technologies/ practices that will be applied as part of the project

Expected expenditures: GEF grant funds and co-financing from the agricultural producer</td><td>1. Compliance with modern agricultural technologies and introduction of an integrated crop protection system in order to increase the yield of grain crops.

Compliance with modern agricultural technologies will be provided for at our own expense, as well as through an open revolving credit line at Agrarian Credit Corporation JSC and funds requested from the GEF. Applications will be also submitted for government subsidies from the LEA for livestock, purchase of plant protection products, fuels and lubricants, etc.

2. Introduction of succulent feeds into crop rotation to improve the soil structure and fodder supplies.

Planned expenditures and sources of financing:

<table>
<tr><td colspan="2">Expected expenditures for agricultural activities</td></tr>
<tr><td>Payroll</td><td>$47 644</td></tr>
<tr><td>Tax deductions</td><td>$5 537</td></tr>
<tr><td>Spare parts and equipment repair</td><td>$13 260</td></tr>
<tr><td>Combustible lubricants</td><td>$25 006</td></tr>
<tr><td>Purchase of plant protection products</td><td>$35 848</td></tr>
<tr><td>Payment of the principal debt and % to financial institutions</td><td>$100 192</td></tr>
<tr><td>Purchase of seeds</td><td>$23 730</td></tr>
<tr><td>Total expenditures:</td><td>$251 217</td></tr>
<tr><td colspan="2">Planned sources of financing:</td></tr>
<tr><td>Government subsidies</td><td>$113 900</td></tr>
<tr><td>Own funds and funds from financial institutions</td><td>$52 733</td></tr>
<tr><td>GEF funds (purchase of plant protection products, seeds, agricultural equipment, spare parts)</td><td>$84 584</td></tr>
<tr><td>Total planned sources:</td><td>$251 217</td></tr>
</table>
</td></tr>
<tr><td>Indicators and quantitative results of the pilot project, including the yield after the implementation of the proposed technologies/ practices and measures.</td><td>An integrated crop protection system will be introduced on the fields to increase the yield of grain crops. The introduction of succulent feed into crop rotation will improve the feed supplies and increase the cattle population. Additional jobs will be created, which means that the problems of the unemployed population will be solved.

- The area of infested arable land will decrease by 24% compared to present time.</td></tr>
</table>

	- Productivity will increase to 16 Cwt/ ha (a 12% increase compared to the average yield for the last 5 years). - The liveweight gain will increase by 15% compared to 413 Cwt in 2018-2019. - There are plans to increase the area of succulent feed crops by 100 hectares.
Pilot project monitoring (indicate how and by whom the declared indicators and project results will be monitored)	Shareholders of Bolshemalyshenskoye LLP and the local community, together with representatives of the rural akimat and the agricultural department, will monitor the project results.
Involvement of and benefits for women in the course of the project implementation	The cattle population is expected to increase and planned processing of livestock products will create additional jobs, which will allow women to be involved in the project implementation.
Involvement of vulnerable groups (if applicable in the project)	Assistance will be provided during the project to members of large and low-income families through employment. There are plans to sell meat and dairy products to low-income families in the regional center at preferential prices. Also, the project will organize study tours for orphans/teenagers to promote their employment in the countryside.
Involvement of youth and schoolchildren (if applicable in the project)	Project activities to improve feed supplies are expected to involve rural youth. There are plans to invite students of agricultural educational institutions for practical training. Given that livestock farms are located near the district center, this proposal will interest many specialized institutions.

Annex 18: Demonstration projects for Output 2.4 on sustainable livestock management and seed production methods

The project PPG experts, in consultation with the relevant stakeholders, have selected 10 demonstration sites in the four target oblasts of NKL of total coverage of 152,117 ha to showcase integrated approaches to landscape management as one of the IP FOLUR objectives including sustainable livestock management. Key problems and barriers to instituting an integrated approach in selected areas have been identified during consultations resulting in demonstration projects that view livestock management and seed production holistically rather just being solely focused on pasture improvement and management generating additional co-benefits to the community. As such, demonstration projects include integrated pasture and distant rangeland management, establishment of distant rangeland management systems (watering points, mobile trailers for herders and mobile veterinary services for livestock at distant rangelands), enhanced fodder production and establishment of seed farms, restoration of degraded pastures/rangelands and meadows, sustainable use of silvopastoral ecosystems, sustainable value chain livestock production (milk & meat production at sites).

Various criteria were used to identify the sites and pilot projects, as follows:

- the soil and climatic conditions of the pilot sites are representative of the zonal features of the Akmola, Kostanay, North Kazakhstan and Pavlodar regions. They have very different natural and climatic conditions and therefore require different approaches when devising integrated approaches to land planning and use. Lessons and successful practices gained in each of these pilot sites can be successfully disseminated in the respective natural landscapes of 4 regions;
- some demonstration sites locate near specially protected natural areas (national parks, nature reserves, local protected areas, IBAs, ecological corridors) and/or lands of the state forest fund and demonstration sites under Output 3.5 providing opportunities to include additional income-generating opportunities for livestock manager (e.g. horse riding for visiting tourists, horse milk therapy, etc). There are also wetlands of local or global importance, lakes and rivers in the territories of the pilot sites. These serve as primary premises for demonstrating the system of integrated natural landscapes management and livestock production approaches while maintaining the integrity of the natural ecosystem in NKL;
- willingness of landowners and/or users to be partners and provide co-financing (financial, human, machinery, etc) and willingness of competent authorities to make 50 to 80% of the financial and/or in-kind contribution to implement project activities;
- alignment with relevant government strategies and programs to ensure complementary financing (government subsidies, KazAgro leasing or credit union financing;
- accessibility of pilot sites for hosting visits/ tours for exchange and dissemination of experience.

All of the above combined will contribute to the rational use of the UNDP-GEF Project limited funds to achieve the goals of demonstrating the effective use of the integrated land management system.

Proposed demonstration sites serve as testing grounds not only for sustainable livestock management and seed production but also as essential elements of the project's work on integrated land use planning (Ouput 1.1), agroenvironmental incentives (Output 2.1), development and adoption of policies/regualtions to enable implementation of LDN principles throughout the NKL including efficient fiscal subsidies and financing (Output 1.3) and sustaible use of adjacent natural ecosystems (Outcome 3). The project will perform assessment of economic, environmental and social impacts of demonstration sites as part of demo sites for pilot ILUPs under Outputs 2.2, 2.3, 2.4, analyze lessons learned to inform the next cycle of land use planning in selected rural okrugs as well as for replication and upscaling by oblast and district akimats in neighboring rural okrugs/districts and other oblast through the Interministerial Task Force, Field Days, farmer exchange visits, workshops and seminars (Output 4.3).

Task Leader for Outcome 2 will supervise implementation of demonstration projects and appropriate use of GEF funds. The Task Leader will monitor relevant site-specific indicators to track effectiveness of each demonstration project. Results will be summarized and reported under RF Indicators 8 and 11, as well as will provide a basis for assessing economic, environmental and social impacts of demonstration sites for pilot ILUPs under Outcome 1.

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. Each demonstration project will seek for ways of supporting or increasing meaningful inclusion of vulnerable groups such as people with disabilities, pensioners and members of low-income and large familie in the value chain, where possible.

Akmola Oblast (4 sites totaling 64,000 ha)

Demonstration project 1: Integrated pasture management for the sustainable production of competitive value-added livestock products in the forest-steppe zone of the Akmola region (Birzhansal pilot site)

Goal: Demonstration of integrated approaches to land, pasture, water and forest resources use for the sustainable crop and livestock production in the forest-steppe zone of the Akmola region.

Expected results:

- Development of the Pasture Management Plan of the Makinsky rural county focused on the integrated use of land, pasture, water and forest resources while maintaining the natural ecosystems integrity;
- Supporting the restoration of the abandoned Makpal and Kogam dams for the development of inundated irrigation and use of sapropel, obtained during the cleaning of dams, as the organic fertilizer for meadows and pastures;
- Increasing the productivity of hayfields and pastures by sowing fodder crops that are highly adapted to local conditions and organizing their seed production;
- Irrigation of remote rangelands, equipping the watering points and creating conditions for shepherds, providing them with a residential cabin and a solar generator with a capacity of 2 kWh, introduction of the limited grazing method in silvopastoral rotation using GPS control;
- Assistance in creating a milk processing plant and a veterinary service point in a settlement and on remote pastures and restoration of a livestock burial site;
- Promoting the achieved project results, publishing infographics, booklets, broadcasting on national TV and conducting educational seminars and trainings.

Location (village, administrative district, region)	Makinka village, Birzhansal district of the Akmola region
Area, ha	The pasture area for local population's livestock grazing is 4751 ha. The rural county consists of the central Makinka estate, Karatal, Kogam and Sosnovka plots. Forest pastures cover 10,000 ha. Improvement of hayfields and pastures: 4000 ha
Land owner/land user	Ezov Denis Aleksandrovich (87473545017), Makinsky rural county, acting Akim - a plan for pasture management using pastures of the forest fund, a watering point with a wind lift, arrangement of a livestock burial site, an automated agrometeorological station or a hydrometeorological station on the Tattimbet River, developing knowledge capacities of members of the Council for Economic Development of the Rural County. "Vertical" LLP - construction of the commercial dairy farm for 600 animals (stable system). De Laval equipment is needed. Interested in a Salford cultivator for vertical tillage. Creating a forage base, sowing perennial and annual herbs. Shvetsov Sergey Vasilievich (87772128207) Director of Makinka-2015 LLP: cleaning of an artificial reservoir, using sapropel as fertilizer, need machines for collecting, processing and applying sapropel, need a water-saving irrigation system (a sprinkler machine is available). Kasymov Yerlan (87770542345), director of the "Kasymov" farm - organization of a milk collection and processing point with a capacity of up to 1 ton per day. IP Teplitsa (87473545017) - installation of a solar generator on an existing greenhouse.
Nature and climatic zone	forest-steppe zone

Nearest existing or proposed PA	State National Nature Reserve (SNNR) "Burabay" is administered by the Office of the President of the Republic of Kazakhstan
Description of the demonstration site:	The area, which the Makinsky rural okrug lies on, is located 200 km from Nur-Sultan -the capital of the Republic of Kazakhstan, 40 km from the Burabay resort and 120 km from the Kokshetau regional center. The Nur-Sultan-Shuchinsk and Kokshetau-Makinsk-Astrakhanka highways pass through the rural county's territory. The agricultural sector with a focus on crop production remains to be a key industry for the region. At the same time, expansion of the fodder crops area will increase the share of livestock. The livestock sector, in turn, will enhance the region's potential in the production of dairy and meat products. Future development of the region will be associated with servicing the emerging Astana-Karaganda agglomeration and recreational activities in the resort area of Burabay. The farming and processing industries are most promising for the rural county. 2,871 people live in this rural county. The rural county is traditionally a grain and livestock farming area. Meat and dairy cattle, sheep and horse breeding is quite advanced in the project area. These activities are among key sources of income for the local population. Currently, the livestock is kept by personal small holdings and farms. Large farms and limited liability partnerships use distant pastures. Personal small holdings and small farms do not use distant pastures, since they are not able to create the necessary pasture infrastructure, it is destroyed (roads, wells, water supply), and cattle farmers do not have basic housing and living conditions (housing, electricity, communications, etc.). On the territory of the Makinsky rural okrug there are only 4,751 ha of pastures. The people's livestock headcount in basic cattle units is more than 4,000.
Description of main environmental challenges and threats to land resources	According to the preliminary data, about 80% of the lands of the Makinsky rural county are degraded due to overgrazing. High rates of soil erosion are observed there. The people's livestock number is growing steadily, and uncontrolled grazing in the rivers floodplains and around settlements accelerates the intensive exploitation of these ecosystems. Currently, 1.0-1.5. ha of pastures are available per 1 livestock unit, while according to the approved standards it should be 7.5-8.0 ha. For this reason, the rural county's pastures have been greatly degraded in recent years as a burden on the pastures exceeds the standard 6 to 7 times. The influence of degradation processes results in the low productivity of pastures, desertification, growing number of hurricanes and greater distribution of dusty sediments around villages. Natural landscapes are subject to a loss of their vegetation cover, there is a real threat of forest pastures desertification. A wider spread of inedible or unfavorable species of plants on grasslands negatively affects the productivity and health of livestock. The epizootic situation on the territory of the rural county worsens, incomes of the rural population fall.
Proposed demonstration activities and expected costs:	1. Development of a Pasture Management Plan for the Makinsky rural county and implementation of the anti-erosion silvopastoral rotation involving 10,000 ha of forest pastures in the zone of limited economic activity of the Burabay SNNR located near Makinsk. Total cost of works, including geobotanical research, is USD 15,000.

<table>
<tr><td></td><td>
2. Preparation of the design and estimate documentation for the cleaning of dams at the Makpal and Kogam rivers, their actual cleaning followed by the use of sapropel as the organic fertilizer - USD 75,000, of which USD 18,750 are subsidies from the Ministry of Agriculture of the Republic of Kazakhstan, USD 18,750 to be covered by the Project and USD 37,500 to be covered by the local Akimat and farmers.
3. Increasing the productivity of 4,000 ha of degraded meadows and pastures by sowing them with highly productive forage crops and using organic fertilizers. The total cost of this activity is USD 70,000, of which USD 35,000 to be covered by the Project and USD 35,000 to be covered by the Akimat, farmers and local communities.
4. Purchase of a shepherd's cabin with a solar generator of 2 kWh capacity and introduction of a limited grazing method using cattle pens and anti-erosion silvopastoral rotation using GPS control. The total cost of this activity is USD 20,000, of which USD 10,000 is a subsidy from the republican budget and USD 10,000 to be covered by the Project.
5. Support for the development of the veterinary service point in the settlement and on remote pastures, as well as reconstruction of the livestock burial site - USD 45,000.
6. Establishing a milk processing plant with a capacity of 1 ton per day. The total project cost is USD 77,000, of which USD 19,250 are subsidies from the republican budget and USD 19,250 to be covered by the Project and USD 38,500 - by the farmer.
7. Conducting educational seminars and trainings for 200 livestock farmers in the region, publication of information materials-USD 20,000, 100% to be covered by the Project.

The total project cost is USD 387,000, of which:
Subsidies from the republican budget – USD 48,000
GEF – USD 123,000
Farmers - USD 115,750
Akimat – USD 101,250
</td></tr>
<tr><td>Indicators and quantitative results of the pilot project</td><td>
<table>
<tr><td>Indicator</td><td>Baseline</td><td>End-of-Project Target</td></tr>
<tr><td>Area under sustainable silvopasture management</td><td>0 ha</td><td>10,000 ha</td></tr>
<tr><td>Restored area of degraded degraded meadows and pastures with sown forage crops</td><td>0 ha</td><td>4,000 ha</td></tr>
<tr><td>Forage crop yield</td><td>2 hwt/ha</td><td>6 hwt/ha</td></tr>
</table>
</td></tr>
<tr><td>Monitoring of demonstration project</td><td>For the purpose of monitoring, the project will sign agreements with employees of the State Enterprise "Scientific-Production Centers for Grain Farming (Shortandy) and Forest Resources (Shchuchinsk)". Contracted specialists will identify and analyze areas with signs of severe degradation and pastures with signs of severe natural succession resulting from inadequate grazing. The project staff and contractual specialists will regularly monitor (at the beginning, in the middle and at the end of the project) the state of pastures using monitoring posts created in each rural county at the beginning of the project.</td></tr>
</table>

	First of all, they will analyze and compare the midterm and final data to see the progress of the project in terms of reducing land degradation and improving the condition of pastures and forage lands. Finally, the project will conduct a socio-economic survey of target groups at the beginning, in the middle and at the end of the project to identify families who have benefited from the project activities and increased their family income.
Economic benefit for the local population	The costs of restoration and implementation of a sustainable pasture and land management system are one-time and small but they have a long-term economic effect by providing a sustainable source of income for the local population. The transition to limited cattle grazing in the silvopastural rotation system is expected to generate the additional income of up to 50 kg from each cattle unit or 25 kg of pure meat. At the same time, a farmer will receive KZT 50,000 of additional income from each head of cattle or horse, or each herd with 50 heads will generate KZT 2,500,000 of income, not counting the income from the offspring, milk, koumiss, etc. The opening of a milk processing plant will enable the production of value-added products. The local population will have the opportunity to earn more and develop their agricultural businesses. Demonstrate project activities are expected to create a school of excellence in integrated natural resource management for this area. During the implementation and upon completion of the project, the local population and members of the Public Council for the Economic Development of the Rural County will receive knowledge and skills on sustainable land and pasture management.
Involvement of and benefits for women in the course of the project implementation	To provide women with work in demonstration projects and generate economic benefits, the following activities will be implemented as part of the project: - Encourage and facilitate women participation in restoration activities by recruiting them as executors of pilot projects. - Initiate the creation of councils for joint management of natural resources in each rural county. The Council shall include representatives of the village akimat, agricultural specialists, active farmers, veterans, women entrepreneurs (at least one) and respected village people. They will make decisions on the rules and processes related to land and water use, grazing rotation and seasonal grazing as well as control over production indicators. - To foster the cooperation between rural women and non-governmental women's organizations at the district and regional levels for organizing joint round tables and workshops to raise additional financing for the development of small businesses organized by rural women. - Organize training courses for women on the production of folk-art goods (carpets, clothes, embroidery, etc.) and food products (horse milk, camel milk, cheese, etc.) and assist in the participation of women in project activities at district and regional level. - Involve women from women's organizations in monitoring and evaluating pilot projects, as well as disseminating best practices in neighboring rural areas. - Include measures to improve monitoring and evaluation of gender aspects in the annual project work plans

Training on monitoring for land users, communities and academic institutions	Within the framework of the project, the results achieved by the pilot projects will be monitored at least once a year with the participation of representatives of akimats, land users, non-governmental organizations and research institutes. Within the framework of the project, short-term training sessions will be organized for these target groups on the topic: how to follow the dynamics of the pilot project indicators. In addition, field trips will be organized as part of the project in order to show-case the results and achievements. The project will also attract specialized research institutes to strengthen the capacity of local authorities, land users and NGOs in land degradation monitoring. In particular, in order to implement the project, employees of the Kazakh Research and Production Center for Grain Farming and Forestry and the Kokshetau State University will be hired.

Demonstration project 2: Distant rangeland use & management while preserving natural steppe ecosystems in Akmola Oblast (Akkol pilot site)

Goal: Rational use of the distant pasture potential for sustainable production of ecologically clean livestock products and prevention of the natural resource degradation in the arid steppes of the Akmola region.

Expected results:

- Development of the Integrated Plan for Land Use and Pasture Management in accordance with the requirements of the Law of the Republic of Kazakhstan "On Pastures" for the Uryupinsky rural county of the Akkol district.
- Development of the pasture infrastructure and introduction of the anti-erosion pasture rotation supported by the limited grazing on distant pasture areas using electronic GPS control.
- Demonstration of agricultural technologies that prevent degradation of hayfields and pastures and increase the productivity of degraded grasslands and pastures by sowing highly productive forage crops (sainfoin, wheatgrass, brome, etc.).
- Creation of seed plots of highly productive annual and perennial fodder crops (Sudanese grass, field pea, sorghum, sainfoin, wheatgrass, brome).
- Organization of mobile veterinary service points for the livestock of agricultural farms and population of the rural county.
- Training of local community members and leaders of Councils for the Economic Development of Rural Counties in new approaches to grassland farming.

Location (administrative district)	Akmola region, Akkol district, Uryupinsky rural county
Area (ha)	Pastures of 10,000 ha, hayfields of 5,000 ha, seed plots of 1,000 ha
Land Owner/ Land User (full name, telephone number) Expert consulting organization	- Uryupinsky rural county (Akim Aydos Zhenisovich 87163831547, 31535) - pasture management plan, surface improvement and reclamation of pastures, equipping the veterinary service point, restoration of the hydraulic structure on the Talkara river; a well and a watering facility with a wind lift and a solar generator are needed in the Amangeldy village for power supply at distant pastures. - "Farmer" farm (director Ayaganova Ainagul 87019103375, deputy director Botagoz) - Dombraly village (Kenes rural country). - "Alga" farm (Uryupinsky rural county) - 1000 ha of seed forage crops. - Akkol Department of Agriculture - Sitnikova Valentina Vladimirovna - 87055857663. - Head of the Department of Entrepreneurship of the Akkol District Daniyar Shumshebekov 87012318930.
Nature and climatic zone	The Akkol district is located 70 km to the north of the steppe zone. The terrain consists of plains and hummocks, 200-400 m high. The district's forest-steppe area is represented by islets of timber vegetation (kolki) scattered throughout the steppe. The ground surface is flat in the forest-steppe zone. There are small depressions on it, some of them are covered by lakes.
Description of the project site: the area of arable land, pastures, hayfields, number of cattle, forage land, etc.)	About one third of the district's gross agricultural output comes from crops production and two thirds –from livestock. Diversification of crops is achieved by sowing winter crops, oilseeds and fodder crops, potatoes and vegetables. In the livestock industry, the headcount of livestock and poultry is growing across all categories of farms. About 84.5% of the total livestock

<table>
<tr><td></td><td>live in private farms of citizens. The livestock production is concentrated in large agricultural enterprises: feedlots, dairy farms. In terms of the epizootic well-being and safety of livestock products, the bottleneck is that veterinary services are delivered at the private farms of villagers. Agricultural products are not purchased properly from the population and the level of competitiveness of food products is insufficient.

The land fund of the Akkol district is 941,830 ha. In the general structure of the district land fund, farmlands account for 44% or 416,797 ha. In this category, the share of arable land is 195,175 ha, which is 47% in percentage terms, fallow lands – 47,753 ha (11%), hayfields - 87 ha (0.02%), pasture lands – 173,349 ha (41, 98%).

Currently, there are 209 peasant farms and 28 non-governmental agricultural legal entities operating in the district. The total area of farmlands is 389,280 ha, of which more than 44% is arable land, the reserve lands (area of 281,189 ha) contain only 2% are fallow lands.</td></tr>
<tr><td>Importance of SLM</td><td>Almost the entire potential of arable land was tapped in the Akkol district and a further increase in the crop area is practically impossible. Nowadays, the question of the effective and rational use of current lands is very important. There are several issues related to the use of distant pastures, creation of highly productive forage lands, improvement of the pasture infrastructure and ensuring the epizootic well-being in the district. The project will implement the following measures:
<table>
<tr><th>Indicators</th><th>Baseline</th><th>End of Project</th></tr>
<tr><td>Development of the Integrated Plan for Land Use and Pasture Management in accordance with the requirements of the Law of the Republic of Kazakhstan “On Pastures” for the Uryupinsky rural county of Akkol district.</td><td>0</td><td>1 Plan for the rural county</td></tr>
<tr><td>Implementation of the anti-erosion pasture rotation supported by the limited livestock grazing on distant pasture areas using electronic GPS control</td><td>0</td><td>10,000 ha</td></tr>
<tr><td>Development of the pasture infrastructure, creation of seeded hayfields and improvement of degraded pastures</td><td>0</td><td>5,000 ha</td></tr>
<tr><td>Creation of seed fodder crops</td><td>0</td><td>1,000 ha</td></tr>
<tr><td>Organization of mobile veterinary services and arrangement of a livestock burial site</td><td>0</td><td>1 mobile veterinary service and 1 livestock burial site</td></tr>
<tr><td>People trained in new pasture management practices</td><td>0</td><td>300</td></tr>
</table>
Once the project is completed, it is recommended to replicate results in neighboring areas located in the steppe zone of the Akmola region.</td></tr>
<tr><td>Demonstration project monitoring</td><td>Project activities will be monitored twice a year by project participants, PF “Union of Farmers of Kazakhstan”, Agricultural Research Institute and UNDP experts.</td></tr>
</table>

Threats to agrolandscapes and land resources	Currently, the following factors threaten the agrolandscapes of the Akkol district: • the structure of crop areas is dominated by the monoculture of cereal crops. This negatively affects soil fertility; • hayfields and pastures have not been sown for the last 15-20 years, and the existing ones are very sparse and have a very low productivity; • uncontrolled overgrazing can lead to the degradation of pastures and to a greater dependence of agricultural production on climate change conditions; • the absence and high cost of fodder, oilseed, and leguminous seeds, as well as the lack of special seed-growing equipment on the farms, impedes the transition of farmers to new land use systems; • unstable epizootic environment impedes the export of livestock products; • the imbalance between the development of livestock and forage base in the project area is becoming a serious problem. • The proposed project provides for the introduction of new environmentally friendly and integrated land use systems, taking into account local conditions and farmers' requests.
Proposed demonstration activities and expected costs	These projects are mainly focused on the development of meadow pasture and livestock farming and include: 1. Assessment of the current state and development of the Integrated Plan for Land Use and Pasture Management in accordance with the requirements of the Law of the Republic of Kazakhstan "On Pastures" –USD 10,000, 100% to be covered by the Project. 2. Development of the anti-erosion pasture rotation and implementation of real control over the location of livestock by chipping GPS collars on an area of 25,000 hectares. It is also very relevant to prevent the increasing incidence of cattle theft. Total costs are USD 7500. Of these, USD 6,000 to be covered by the Project and USD 1,500 - by the farmer. 3. Drilling a well, equipping a watering point with a wind lift in remote areas of pastures, acquiring a residential cabin for a shepherd, a solar generator, total of USD 32,000. Of these, 80% (25,600) will be a subsidy from the republican budget and 20% (6,400) to be covered by the Project. 4. Improvement of 5,000 hectares of degraded grasslands and sowing of 1,000 ha with seeds of wheatgrass, brome and sainfoin, total of USD 45,000. Of these, 50% (USD 22,500) will be covered by the farmer and 50% (USD 22,500) by the Project. 5. Purchase of a header for the two-phase harvesting of fodder crops and a seed cleaning machine-USD 20,000. Of these, 5000 (25%) are subsidies, USD 12,000 – to be covered by the Project, USD 3000 to be covered by the farmer. 6. Purchase of a mobile veterinary service point, equipment (race, fixer, etc.) for veterinary services and equipping a livestock burial site - USD 45,000. 7. Conducting educational workshops and trainings, publication of information materials - USD 20,000, 100% to be covered by the Project. The total cost of the demonstration project is **USD 239,500**, of which:

	Subsidies from the republican budget – USD 30,600 GEF – USD 91,900 Farmer – USD 57,000 Annual financing of local Akimat from the republican budget or the maintenance of veterinary staff, veterinary laboratories and other environmental programs – USD 60,000
Economic benefits for the local population	Improving the fertility of arable land will increase the yield while reducing the area of the grain area. An increase in feed production will stop pasture degradation and increase livestock and crop production by 20%. All proposed measures will create additional jobs, the community will receive stable employment and increase rural income by 30%. With the appearance of new jobs of a new profile, there will be a need for professional growth. The economic effect will be determined during the implementation and at the end of the project.
Involvement of and benefits for women in the course of the project implementation	The project takes into account all gender aspects: equal gender rights in the production and distribution of products. Women will take an active part in the project implementation as direct beneficiaries.
Involvement of vulnerable population groups	The beneficiaries of the project will provide support to vulnerable groups such as people with disabilities, pensioners and large families.
Involvement of youth (if applicable in the project)	Young people living on the target territories will actively participate in field work during the sowing and harvesting campaigns. Stable demand for certain professions affects the conscious choice of a profession by young people.
Training on monitoring for land users, local communities and research institutes	Project results will monitored throughout the project implementation period with the participation of representatives of akimats, land users, local communities, the Agricultural Research Institute and the Kazakh Agro-Technological University named after S.Seifullin. The project will provide training on indicators-based progress tracking. Field visits will be organized to demonstrate practical results. The results of the project will be transferred to the "Extension Center of the agro-industrial complex" for further promotion.

Demonstration project 3: Integrated pasture management for sustainable value chain livestock production (Yereymentau demo site)

Goal: Demonstrating the use of pasture potential in the Yereymentau district for the sustainable production of ecologically clean livestock products and development of alternative income-generating activities such as koumiss therapy, horse riding, ecotourism, etc.

Expected results:

- Functional zoning of the territory of the Yereymentau district with the allocation of zones for the development of grassland farming and recreational activities on the basis of cascades of therapeutic and recreational lakes Rozovoye, Mikol, Korzhynkol and Kurbet;
- Development of the Pasture Management Plan in accordance with the requirements of the Law of the Republic of Kazakhstan "On Pastures" and development of recreational activities in the Ulenty rural county of the Yereymentau district of the Akmola region;
- Development of the pasture infrastructure and introduction of the anti-erosion pasture rotation supported by the limited grazing on distant pasture areas using electronic GPS control;
- Demonstration of agricultural technologies that increase the productivity of degraded hayfields and pastures by restoring dams and developing the inundated irrigation in the Ulenty riverbed;
- Promoting the development of ecotourism, water-mud and koumiss therapy and horse riding on the territories adjacent to the Yereymentau branch of the Buyratau SNNR;
- Organization of mobile veterinary services for animals of agricultural producers and population of the rural county and arrangement of a livestock burial site;
- Capacity building of local communities and leaders of Councils for the economic development of rural counties on new approaches to grassland farming and development of alternative income-generating activities for the rural population.

Location (administrative district)	Akmola region, Yereymentau district, Ulenty rural county
Area (ha)	15,000 ha of pastures and 3,000 ha of inundative irrigation.
Land Owner/ Land User (full name, telephone number) Expert consulting organization	Akim of the Yereymentau district Alzhanov Abay Elemanuly, 87015702444, deputy Akim of the district Aldybekov Nariman Kazbekovich, 87013052335, e-mail: aldibekov_nariman@mail.ru, Ulenty Rural District, Akim Almagul Mustafina 87057427354, e.mail almagul.mustafina.2014@mail.ru. Pasture management plan, pasture rotation, veterinary service point, livestock burial site, slaughterhouse. Restoration of the Boztal dam and 2 dams on the Ulenty River to create grasslands of more than 3,000 ha (Boztal-1,600 ha, Ulenti - 1,500 ha). More than 250 farmers will benefit from this. Demonstration of crop rotation: chickpeas, barley, safflower on 200 ha in "Bake" farm. Cleaning and arrangement of the lakes cascade: Rozovoye, Maikol, Korzhynkol, cleaning of the Kurbet river and lake. Creating a recreation and health-improving zone. Director of the Yereymentau branch of the Buyratal SNNR Sagyndyk Talgat Gabbasuly, 87712557717, Private Enterprise and Cultural Center "Balzhan" Yerkhan Mustafin 87718888947. Development of agroecotourism based on koumiss therapy, horseback riding, silvopastoral rotation.
Nature and climatic zone	Yereymentau district is located to the east of the Akmola region. To the southeast it has a border with the Karaganda region, to the north - with the North Kazakhstan region, and in the east it borders with the Pavlodar region where Lake Balakeskensor is located. The district lies to the north of the Kazakh Hummocks, most of its territory is occupied by a hilly plain, and there are Yereymentau mountains in the east. The district has reserves of gold, antimony, coal, bauxite, granite, limestone and others. The climate is

<table>
<tr><td></td><td>continental. The average January temperatures are from −16 to −18 ° C, and in July it is 20–21 ° C. The annual amount of precipitation is 300-350 mm. The main tributaries of the Sileti river are flowing through the district from the south-west to the north-east: Aschylyraiyk (left), Akmyrza, Kedei, Shili (right) and the Olenty river. There are many lakes, the largest ones are: Teniz, Sholaksor, Zhaksytuz, Tamsor, Karasor, Ulken and Kishi Sharykty, Korzhynkol and others. Most of the territory of the Yereymentau district is located in the zone of dark chestnut soils with steppe vegetation (feather grass, fescue and others). Alder, birch, aspen also grow here. Wolf, fox, roe deer, hare, marmot, argali are local species. Carp, perch, pike and others are found in the reservoirs. Grain and livestock farming (cattle, sheep, pigs, horses) is advanced. Gold deposits of Bestobe and Eshkiolmes are being developed. Factories: crushed stone, concrete products, butter and bakery and others. The Astana-Pavlodar, Yereymentau-Aisary railways and the Astana-Pavlodar highway pass through the district. The territory of the district is located in the transitional zone between the subzones of moderately arid and dry steppes – it is unique as it combines steppe and forest ecosystems. A number of northern and mountain relics live here - argali, flat-headed vole, golden eagles, rufous-tailed rock thrush, gray-necked bunting, demoiselle crane and whooper swan. To preserve these unique natural ecosystems and their biodiversity, the State National Park was created with an area of 88,968 ha.</td></tr>
<tr><td>Description of the project site: the area of arable land, pastures, hayfields, number of cattle, forage land, etc.)</td><td>About one third of the district’s gross agricultural output is crops and two thirds are livestock.
The land fund of the Yereymentau district is the largest in the Akmola region and amounts to 1765.8 thousand ha. The land fund consists of the farmlands: 1121.4 thousand ha, settlements: 242.5, industry, transport communications: 10.8 ha, protected areas: 60.8 ha, forest estate: 14.4 ha, water fund: 31.4 ha and reserve lands: 284.1 thousand ha. The farmlands consist of arable land: 103.6 thousand ha, fallow land: 100.3 thousand ha, hayfields: 10.5 thousand ha and pasture: 907.4 thousand ha. The soil quality score (bonitet) is 15 and it is the lowest in the Akmola region. The total number of pasture users exceeds 500 agroformations (farms, LLP, IP, etc.).</td></tr>
<tr><td>Importance of SLM</td><td>Almost the entire potential of arable land was tapped in the Yereymentau district and a further increase in the crop area is practically impossible. Nowadays, the question of the effective and rational use of current lands is very important for the development of livestock farming as a main income source for the rural population. Rich natural resources, proximity of the capital of the Republic of Kazakhstan, Nur-Sultan, and availability of convenient transport infrastructure also support the development of alternative income-generating activities such as agroecotourism, water-mud and koumiss therapy, horse riding and others. There are several issues related to the use of distant pastures, creation of highly productive forage lands, improvement of the pasture infrastructure and ensuring the epizootic well-being in the district. The project will implement the following measures:

<table>
<tr><th>Indicators</th><th>Baseline</th><th>End-of-Project</th></tr>
<tr><td>Functional zoning of the territory of the Yereymentau district with the allocation of zones for the development of grassland farming and recreational activities on the basis of cascades of therapeutic and recreational lakes Rozovoye, Mikol, Korzhynkol and Kurbet and others.</td><td>0</td><td>1 Functional zoning plan for the district covering 18,000 ha</td></tr>
<tr><td>Development of the Pasture Management Plan in accordance with the requirements</td><td>0</td><td>1 Pasture Management Plan</td></tr>
</table>
</td></tr>
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<table>
<tr><td></td><td>
<table>
<tr><td>of the Law of the Republic of Kazakhstan “On Pastures” and development of recreational activities in the Ulenty rural county of the Yereymentau district of Akmola region.</td><td></td><td>for the Ulenty rural county.</td></tr>
<tr><td>Development of the pasture infrastructure and introduction of the anti-erosion pasture rotation supported by the limited grazing on distant pasture areas using electronic GPS control</td><td>0</td><td>15,000 ha</td></tr>
<tr><td>Demonstration of agricultural technologies that increase the productivity of degraded hayfields and pastures by restoring dams and developing the inundated irrigation in the Ulenty riverbed.</td><td>0</td><td>3,000 ha</td></tr>
<tr><td>Promoting the development of ecotourism, water-mud and koumiss therapy and horse riding on the territories adjacent to the Yereymentau branch of the Buyratau SNNR.</td><td>0</td><td>10 farms with alternative activities</td></tr>
<tr><td>Creation of a livestock slaughtering and processing plant with a refrigerator</td><td>0</td><td>1 plant with a refrigerator</td></tr>
<tr><td>Organization of mobile veterinary services for animals of agricultural producers and population of the rural county and arrangement of a livestock burial site</td><td>0</td><td>1 mobile veterinary service point and 1 livestock burial site</td></tr>
<tr><td>Local residents trained on new methods of pasture management and development of alternative income-generating activities</td><td>0</td><td>300 people</td></tr>
</table>

Once the project is completed, it is recommended to replicate results in neighboring areas of the Akmola region.
</td></tr>
<tr><td>Demonstration project monitoring</td><td>Project activities will be monitored twice a year by project participants, PF “Union of Farmers of Kazakhstan”, Agricultural Research Institute and UNDP experts.</td></tr>
<tr><td>Threats to agrolandscapes and land resources</td><td>Currently, the following factors threaten the agrolandscapes of the Yereymentau district:
- monoculture of cereal crops negatively affects soil fertility and has become unprofitable for farmers;
- hayfields and pastures have not been sown for the last 15-20 years, and the existing ones are very sparse and have a very low productivity;
- uncontrolled overgrazing can lead to the degradation of pastures and to a greater dependence of agricultural production on climate change conditions;
- uncontrolled recreational activities in lakes and reservoirs led to a deterioration in their sanitary condition;
- unstable epizootic environment impedes the export of livestock products;</td></tr>
</table>

	- the imbalance between the development of livestock and forage base in the project area is becoming a serious problem. The proposed project provides for the introduction of new environmentally friendly and integrated land use systems, taking into account local conditions and farmers' requests.
Proposed demonstration activities and expected costs	The proposed project activities are mainly focused on the development of grasslands farming and development of recreational activities. They include: 1. Functional zoning of the territory of the Yereymentau district with the allocation of zones for the development of grassland farming and recreational activities on the basis of cascades of therapeutic and recreational lakes Rozovoye, Mikol, Korzhynkol and Kurbet and others. USD 20,000. 2. Assessment of the current state and development of the Integrated Land Use and Pasture Management Plan in accordance with the requirements of the Law of the Republic of Kazakhstan "On Pastures", USD 15,000, 100% to be covered by the Project. 3. Development of the anti-erosion pasture rotation and implementation of control over the movement of livestock by chipping GPS collars on an area of 15,000 hectares. It is also very relevant to prevent the increasing incidence of cattle theft. Total costs are USD 7,500. Of these, USD 6,000 to be covered by the Project and USD 1,500 to be covered by the farmer. 4. Drilling a well, equipping a watering point with a wind lift in remote areas of pastures, acquiring a residential cabin for a shepherd, a solar generator, total of USD 32,000. Of these, 80% (25,600) will be a subsidy from the republican budget and 20% (6,400) to be covered by the Project. 5. The restoration of dams and dykes for the development of inundated irrigation on an area of 3000 hectares. The total cost is USD 45,000. Of these, 50% (22,500) to be covered by the farmer and 50% (22,500) by the Project. 6. Promoting the development of ecotourism, water-mud and koumiss therapy and horse riding on the territories adjacent to the Yereymentau branch of the Buyratau SNNR USD 20,000 to be covered by the farmer, IP, LLP. 7. Creation of a livestock slaughtering and processing plant with a refrigerator - USD 46,150. Of these, USD 11,540 is a subsidy of from the republican budget, USD 11,540 to be covered by the Project and USD 23,070 – by the farmer. 8. Purchase of a mobile veterinary service point, equipment (race, fixer, etc.) for veterinary services and equipping a livestock burial site - USD 45,000. 9. Conducting educational workshops and trainings, publication of information materials - USD 20,000, 100% to be covered by the Project. The total cost of the pilot project is USD 320,650, of which: Subsidies from the republican budget – USD 37,140. GEF – USD 121,440. Farmer – USD 102,070. Existing financing of local Akimat from the republican budget for the maintenance of veterinary staff, veterinary laboratories and other environmental programs – USD 60,000
Economic benefits for the local population	Organizing controlled grazing and pasture rotation will stop pasture degradation and increase livestock productivity by 20%. Creating the infrastructure for the development of livestock products processing,

	ecotourism, water-mud and koumis therapy and horse riding on the territories adjacent to the Yereymentau branch of the Buyratau SNNR will create additional jobs. All the proposed activities provide stable employment and increase the income of the rural population by 30%. With new jobs of a new profile, there will be a need for professional growth. The trainings provided by the project help local communities to increase the knowledge and experience in the field of pasture management and development of alternative income-generating activities.
Involvement of and benefits for women in the course of the project implementation	The project takes into account all gender aspects: equal gender rights in the production and distribution of products. Women will take an active part in the project implementation as direct beneficiaries, especially in activities of ecotourism, water-mud and koumiss therapy and horse riding and others.
Involvement of vulnerable population groups	The beneficiaries of the project will provide support to vulnerable groups such as people with disabilities, pensioners and large families.
Involvement of youth (if applicable in the project)	Young people living on the target territories will actively participate in field work during the sowing and harvesting campaigns. Stable demand for certain professions affects the conscious choice of a profession by young people.
Training on monitoring for land users, local communities and research institutes	Project results will monitored throughout the project implementation period with the participation of representatives of akimats, land users, local communities, the Agricultural Research Institute and the Kazakh Agro-Technological University named after S.Seifullin. The project will provide training on indicators-based progress tracking. Field visits will be organized to demonstrate practical results. The results of the project will be transferred to the "Extension Center of the agro-industrial complex" for further promotion.

Demonstration project 4: Organization of the mobile livestock farming for the conservation of natural ecosystems in the steppe zone of northern Kazakhstan (Aiyrtau pilot site)

Goal: Rational use of the mobile livestock potential for the sustainable production of livestock products and preventing the degradation of natural resources of the steppe zone of the North Kazakhstan region.

Expected results:

- Developing the Integrated Land Use and Pasture Management Plan in accordance with the requirements of the Law of the Republic of Kazakhstan "On Pastures" for the Arykbalyk rural county of the Aiyrtau district.
- Development of the pasture infrastructure and introduction of the anti-erosion pasture rotation supported by the limited grazing on distant pasture areas using electronic GPS control.
- Demonstration of agricultural technologies that prevent degradation of hayfields and pastures and increase the productivity of degraded hayfields and pastures by sowing highly productive forage crops (sainfoin, wheatgrass, brome, etc.)
- Creation of seed plots of highly productive annual and perennial fodder crops (Sudanese grass, field pea, sorghum, sainfoin, wheatgrass, brome).
- Organization of mobile veterinary service points for the livestock of agricultural farms and population of the rural county.
- Training of local community members and leaders of Councils for the Economic Development of Rural Counties in new approaches to grassland farming.

Location (administrative district)	Akmola region, Ayirtau district, Arykbalyk rural county
Area (ha)	Pastures of 10,000 ha, creation of hayfields on the area of 5,000 ha, seed plots of 1,000 ha
Land Owner/ Land User (full name, telephone number) Expert consulting organization	The Director of the Department of Agriculture of the North Kazakhstan Region Bekshenov Erbolat Muratovich, 87772733365930, Deputy Akim of the Ayirtau district Zhanapin Edres Zhazitovich - 87013770471. Arykbalyk rural county: Zhelkuar LLP - a livestock complex is being built with the investors' money; problems - creating a forage base, pasture improvement, pasture management plan, cultivating fodder crops on drylands using irrigation.
Nature and climatic zone	Aiyrtau district is the southernmost district of the North Kazakhstan region in the steppe zone. There are three branches of the Kokshetau nature reserve under the state protection. Two state institutions for the protection of wildlife and forests are operating there. There are 9 natural monuments. The district, covered by coniferous forests, mountain ranges and lakes with a mirror surface, attracts adventure travelers from all over Kazakhstan and neighboring Russia.
Description of the project site: the area of arable land, pastures, hayfields, number of cattle, forage land, etc.)	The total area of the Ayirtau district is 960,382 ha, of which pasture lands are 287,316 ha, irrigated lands are 166 ha. There are the following land categories: - farmlands – 733,474 ha; - lands of settlements – 103,159 ha; - lands of industry, transport, communications, space activities, defense, national security and other non-agricultural purposes – 8,771 ha;

<table>
<tr><td></td><td>
- lands of the water fund – 6,651 ha;
- reserve lands – 39,766 ha.

The district center is Saumalkol, (former Volodarskoye village). It is currently one of the largest districts of the North Kazakhstan region. Its total area is 9,620 square kilometers. The district's vegetation cover is diverse and includes about 120 species. The most common ones are cereals, legumes and forbs. There are 14 veterinary points, 10 points for artificial insemination, 30 livestock burial grounds and 3 Siberian-ulcer burial sites in the district. Currently, there are 39,713 heads of cattle, 39,260 heads of small cattle, 12,650 horses, 16,253 pigs and 243,756 birds in the Ayirtau district.

The population of the district is 36,951 people, many ethnic groups. There are 14 rural counties and 79 rural settlements in the administrative-territorial division of the Ayirtau district. The Arykbalyk rural county was chosen as a pilot site because its natural and climatic conditions are in full compliance with the criteria, goals and objectives of the project.
</td></tr>
<tr><td>Importance of SLM</td><td>
The Ayirtau district is a grain and livestock production area. Almost the entire potential of arable land suitable for grain production has been exhausted already. Nowadays, the issue of increasing soil fertility is very important to ensure the sustainability of grain production. There are several issues related to the use of distant pastures, creation of highly productive forage lands, improvement of the pasture infrastructure and ensuring the epizootic well-being in the district. The project will implement the following measures:

<table>
<tr><th>Indicators</th><th>Baseline</th><th>End of Project</th></tr>
<tr><td>Developing the Integrated Land Use and Pasture Management Plan in accordance with the requirements of the Law of the Republic of Kazakhstan "On Pastures" for the Arykbalyk rural county of the Aiyrtau district</td><td>0</td><td>1 plan for the rural county</td></tr>
<tr><td>Introduction of the anti-erosion pasture rotation supported by the limited grazing on distant pasture areas using electronic GPS control</td><td>0</td><td>10,000 ha</td></tr>
<tr><td>Development of the pasture infrastructure, creation of seeded hayfields and improvement of degraded pastures</td><td>0</td><td>5,000 ha</td></tr>
<tr><td>Creation of seed fodder crops</td><td>0</td><td>1,000 ha</td></tr>
<tr><td>Organization of mobile veterinary services and arrangement of a livestock burial site</td><td>0</td><td>1 mobile veterinary service and 1 livestock burial site</td></tr>
<tr><td>People trained in new pasture management practices</td><td>0</td><td>300</td></tr>
</table>
</td></tr>
<tr><td>Demonstration project monitoring</td><td>Project activities will be monitored twice a year by project participants, PF "Union of Farmers of Kazakhstan", Agricultural Research Institute and UNDP experts.</td></tr>
<tr><td>Threats to agrolandscapes and land resources</td><td>Currently, the following factors threaten the agrolandscapes of the Ayirtau district:</td></tr>
</table>

	- monoculture negatively affects soil fertility; - seeded hayfields and pastures around settlements and watering points are degraded and have a very low productivity; - unstable epizootic environment impedes the export of livestock products; - agricultural production is highly dependent on climate change conditions; - the lack of an established system of seed production hinders the transition of farmers to new land use systems; - a weak forage base is becoming a serious problem for newly established livestock complexes. The proposed project seeks to introduce new environmentally friendly and integrated land use systems, taking into account local conditions and farmers' requests
Proposed demonstration activities and expected costs	The proposed project activities are mainly focused on the development of grasslands farming and livestock. They include: 1. Assessment of the current state and development of the Integrated Land Use and Pasture Management Plan in accordance with the requirements of the Law of the Republic of Kazakhstan "On Pastures", USD 10,000, 100% to be covered by the Project. 2. Development of the anti-erosion pasture rotation and implementation of real control over the movement of livestock by chipping GPS collars on an area of 10,000 hectares. Total costs are USD 7,500. Of these, USD 6,000 to be covered by the Project and USD 1,500 to be covered by the farmer 3. Drilling a well, equipping a watering point with a wind lift in remote areas of pastures, acquiring a residential cabin for a shepherd, a solar generator, total of USD 32,000. Of these, 80% (25,600) will be a subsidy from the republican budget and 20% (6,400) to be covered by the Project 4. Improvement of 5,000 hectares of degraded grasslands and sowing of 1,000 ha with seeds of wheatgrass, brome and sainfoin, total of USD 45,000. Of these, 50% (USD 22,500) will be covered by the farmer and 50% (USD 22,500) by the Project. 5. Purchase of a header for the two-phase harvesting of fodder crops and a seed cleaning machine-USD 20,000. Of these, 5000 (25%) are subsidies, USD 12,000 – to be covered by the Project, USD 3000 to be covered by the farmer 6. Purchase of a mobile veterinary service point, equipment (race, fixer, etc.) for veterinary services and equipping a livestock burial site - USD 45,000. 7. Conducting educational workshops and trainings, publication of information materials - USD 20,000, 100% to be covered by the Project The total cost of the pilot project is USD 239,500, of which: Subsidies from the republican budget – USD 30,600. GEF – USD 91,900. Farmer – USD 57,000. Existing financing of local Akimat from the republican budget for the maintenance of veterinary staff, veterinary laboratories and other environmental programs – USD 60,000
Economic benefits for the local population	Improving the fertility of arable land will increase the yield while reducing the area of the grain area. An increase in feed production will stop pasture

	degradation and increase livestock and crop production by 20%. All proposed measures will create additional jobs, the community will receive stable employment and increase rural income by 30%. With the appearance of new jobs of a new profile, there will be a need for professional growth. The economic effect will be determined during the implementation and at the end of the project.
Involvement of and benefits for women in the course of the project implementation	The project takes into account all gender aspects: equal gender rights in the production and distribution of products. Women will take an active part in the project implementation as direct beneficiaries.
Involvement of vulnerable population groups	The beneficiaries of the project will provide support to vulnerable groups such as people with disabilities, pensioners and large families.
Involvement of youth (if applicable in the project)	Young people living on the target territories will actively participate in field work during the sowing and harvesting campaigns. Stable demand for certain professions affects the conscious choice of a profession by young people
Training on monitoring for land users, local communities and research institutes	Project results will monitored throughout the project implementation period with the participation of representatives of akimats, land users, local communities, the Agricultural Research Institute and the Kazakh Agro-Technological University named after S.Seifullin. The project will provide training on indicators-based progress tracking. Field visits will be organized to demonstrate practical results. The results of the project will be transferred to the "Extension Center of the agro-industrial complex" for further promotion.

Kostanai Oblast (3 sites totaling 49,117 ha)

Demonstration project 5: Integrated pasture management and agroforestry landscapes conservation in the context of free grazing in the dry steppe zone of the Kostanay region

Goal: Rational use of distant pastures and ecosystem conservation in arid conditions of the Nauruzym district of the Kostanay region.

Expected results:

- Organizing a controlled free grazing system using GPS collars and solar panels at distant pastures bordering the Nauruzym nature reserve
- Organizing mobile veterinary services for livestock at distant rangelands
- Increasing the productivity of old-aged thinned hay-pasture lands by strip sowing with wheatgrass seeds
- Raising awareness of and training local communities of the Nauruzym district to new technologies in order to use and increase the productivity of hayfields and pastures

Location (administrative district)	Kostanay region, Nauruzym district, Karamendy rural county
Area (ha)	15,000 ha of pastures, 1,000 ha of hayfields
Land Owner/ Land User (full name, telephone number) Expert consulting organization	Akim of the Karamendy rural county, Public Council for Economic Development of the Rural County. Farm "Syrymzhan", Muttakhova Gulzada Binagabdullinovna, 87778111118, Vip_mira @ bk.ru
Nature and climatic zone	Dry steppe
Description of the project site: the area of arable land, pastures, hayfields, number of cattle, forage land, etc.)	The Nauruzym district is located to the south of the Kostanay region in the dry steppe subzone of the steppe zone Naurzum State National Nature Reserve (hereinafter SNNR), which is part of the Saryarka UNESCO World Heritage Site - Steppes and Lakes of Northern Kazakhstan (site No. 1102)- is located on the territory of the district. The area of pastures in the county is 1,079,293 ha, including those on farmlands - 302,186 ha, on settlements - 94,939 ha, on specially protected natural areas - 120,802 ha, on reserve lands - 561,366 ha. With extensive pastureland availability, the local population has developed a livestock farming practice based on free grazing. As a result of uncontrolled grazing, degradation of hayfields and pastures is observed, posing a bigger threat to the SNNR. Distant pastures are not used due to lack of water sources. The territory of the Karamendy rural county, which is close to the borders of the SNNR, was chosen as a pilot site for the organization of controlled cattle grazing under the GEF/UNDP project “Promotion of sustainable food systems and improved ecosystems services in Northern Kazakhstan Landscape” (hereinafter referred to as the Project).
Importance of SLM	Controlled livestock grazing will help: (i) take the majority of the local livestock to distant pastures; (ii) reduce the burden on pastures and prevent pasture degradation around Karamendy, (iii) revitalize the livestock and increase its productivity, as well as incomes of the local population; (iv) address the threat to relict forests and SNNR biodiversity.

<table>
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<tr><th>Indicators</th><th>Baseline</th><th>End of Project</th></tr>
<tr><td>Pasture Management and Rational Use Plan for the rural county</td><td>0</td><td>1 plan</td></tr>
<tr><td>Area of controlled grazing at distant pastures</td><td>0 ha</td><td>15,000 ha</td></tr>
<tr><td>Area of restored hayfields</td><td>0 ha</td><td>1000 ha</td></tr>
<tr><td>Improving forage lands productivity</td><td>2 Cwt/ha</td><td>6 Cwt/ha</td></tr>
<tr><td>Mobile veterinary services and arrangement of the livestock burial site</td><td>0</td><td>1 veterinary service point and 1 livestock burial site</td></tr>
<tr><td>Wells at remote pasture areas</td><td>0 units</td><td>2</td></tr>
<tr><td>People trained to new pasture management practices</td><td>0 people</td><td>300</td></tr>
</table>
</td></tr>
<tr><td>Demonstration project monitoring</td><td>The project will be monitored twice a year: in spring and autumn with participation of members of the Council for Economic Development and residents of rural counties of the district, representatives of district and county akimats, members of the maslikhat and UNDP-GEF experts.</td></tr>
<tr><td>Threats to agrolandscapes and land resources</td><td>In Nauruzym district, livestock farming is the main source of income for the local population. A constantly growing headcount of the livestock, its grazing around the villages has caused a significant degradation of pasture lands. Low productivity of old-age seeded hayfields makes it impossible to prepare a sufficient amount of feed for the winter period. For this reason, year-round grazing is often practiced, which exacerbate the degradation of forage lands especially around settlements. In search of feed and water, animals often enter the SNNR territory, which in turn creates a certain threat to its valuable biodiversity. In remote pasture areas there are no sources of water supply and therefore they are practically not used.</td></tr>
<tr><td>Proposed demonstration activities and expected costs</td><td>1. Geobotanical research and development of the Pasture Management and Rational Use Plan in accordance with the requirements of the Law of the Republic of Kazakhstan “On Pastures” –USD 10,000, 100% to be financed by the Project.
2. Introduction of a controlled cattle grazing system at distant pastures of the arid steppe zone of the Karamendy rural county on an area of 20,500 ha using GPS collars - USD 5,000, 80% to be covered by the Project and 20%, or USD 1,250, to be covered by the farmer.
3. Drilling 2 wells and equipping a watering point for animals and wildlife in remote pasture areas - USD 16,000, purchase of a yurt for a shepherd - USD 2,000, total of USD 18,000. Of these, 80% (14,400) is a subsidy from the republican budget and 20% (3,600) will be covered by the Project.
4. Restoration of 1,000 hectares of old-aged thinned hayfields and pastures by strip sowing with wheatgrass seeds: USD 25,000. Of</td></tr>
</table>

these, 50% (12,750) will be covered by the farmer and 50% (12,750) will be covered by the Project.

5. Purchase of a mobile veterinary clinic, equipment (race, fixer, etc.) for veterinary services and equipping a livestock burial site -USD 65,000. Of these, the local Akimat will cover USD 23,000, the Project will cover USD 42,000.
6. Conducting educational seminars and trainings, publication of information materials – USD 20,000, 100% to be covered by the Project.

Total costs of the pilot project, including contributions of the Akimat and the farmer – USD 186,500

Budget of the pilot project

No	Source of financing	Amount of contribution, $US
1	Contribution of the local Akimat for veterinary services for the population –USD 65,000 (veterinary staff, veterinary preparations, transportation, premises, equipment, labor, etc.) and of the farmer- USD 12,500 (soil preparation, transportation of seeds, preparation of equipment, sowing and crops care, protection of crops from damage etc.) and GPS collars –USD 1,250.	78,750
2	Subsidy of 80% of expenditures from the republican budget (item 3) (Order of the Ministry of Agriculture of the Republic of Kazakhstan No. 317 of 07/23/2018).	14,400
	Total contribution of partners	93,150
3	GEF/UNDP project co-financing 20% of expenditures in items 2 and 3 and 50% of expenditures in item 4.	16,350
4	Financing the purchase of GPS collars, equipment for rural veterinary points (race, fixer, etc.) and arrangement of a livestock burial site.	47,000
5	Financing the development of a pasture management plan, conducting educational seminars and trainings, publishing infographics and booklets.	10,000
6	Total GEF contribution	73,350
7	Total project budget	166,500

To receive subsidies from the republican budget, the farm shall submit an application to the district Department of Agriculture. The procedure for obtaining subsidies is determined by order of the Ministry of Agriculture of the Republic of Kazakhstan No. 317 of July 23, 2018.

For the joint implementation of the pilot project, a Cooperation Agreement shall be signed between the Project, the district

	Department of Agriculture and the Farm, which specifically indicates the responsibilities of each partner. The Ministry of Agriculture of the Republic of Kazakhstan does not provide subsidies to purchase the equipment for rural veterinary points (race, fixer, etc.) and equipping the livestock burial site, although they are a key factor in protecting animal health for the sustainable livestock farming development. Upon the results of the pilot project, the Ministry of Agriculture of the Republic of Kazakhstan will make proposals on including the arrangement of veterinary points and livestock burial site in the list of subsidized activities.
Possible negative impact on the environment or socio-economic situation and ways to mitigate them through the project	The proposed project is not expected to produce any negative impact on the environment or the socio-economic situation. GPS collars on the necks of animals will make it possible for the livestock owners to determine the location of a herd of cattle or a herd of horses accurately, to prevent a long-time grazing on the same pasture areas and to prevent livestock movement to the SNNR territory. It also helps the SNNR staff in their efforts to ensure the ecosystem integrity in protected areas.
Economic benefits for the local population	The costs of restoration and implementation of a sustainable pasture management system are one-time and small but they have a long-term economic effect by providing a sustainable source of income for the local farmers and communities. Cattle grazing on more productive pastures will improve the herd's productivity and create a sustainable foundation to increase local incomes by at least 30%. The economic effect will be calculated annually through measuring the additional livestock weight gain from grazing on remote pastures. Local communities (manpower, equipment and machinery, knowledge) will be involved in project activities. It is expected that by the end of the project, 30 people from the local communities and members of the newly created Council for Economic Development of the rural county will get new knowledge and practical skills on sustainable pasture management.
Involvement of and benefits for women in the course of the project implementation	Women lead 40% of participating farms and will be actively involved in the project activities as direct beneficiaries. Women will play a leading role in keeping animals in the stall and processing and selling livestock (dairy and meat) products
Involvement of vulnerable population groups	Improving livestock productivity in the rural county will make it possible for the farms to increase support for the most vulnerable groups of their communities: people with disabilities, pensioners and large families.
Involvement of schoolchildren youth (if applicable in the project)	Young people (from 18 to 25 years old) are expected to be involved in project activities as machine operators and pasture management operators at distant pastures.
Training on monitoring for land users, local communities and research institutes	Project results will be monitored twice a year with participation of representatives of akimats, land users and research institutes. The project will deliver short-term training sessions on indicator-based progress tracking. Also, field visits will be organized to demonstrate practical results and progress. Specialized research institutes will be involved in building the capacity of local authorities, land users and NGOs to monitor land degradation and restoration. Specifically, the project will involve employees of the Scientific and Innovation Center for Animals and Feed Production (Almaty) and the Scientific and Innovation Hub of Kostanay State University named after A. Baitursynov.

Demonstration project 6: Organizing silvopastoral rotation for the standardized provision of pastures for local communities in the Vladimirovka village, Kostanay district (Vladimirovsky demo site)

Goal: Rational use of pasture lands of the village and adjacent pastures of the forest fund for livestock grazing, ensuring the natural ecosystem integrity and increasing the welfare of the rural population.

Expected results:

- Development of the Pasture Management Plan of the Vladimirsky rural county, focused on introducing the anti-erosion silvopastoral rotation using 15,000 ha of forest pastures of the Arakaragai FA located around the Vladimirovka village.
- Assistance in cleaning the pit near the Vladimirovka village, compaction of the pit near the Sormovka village, Vladimirovsky rural county, arrangement of watering points.
- Increasing the productivity of reclaimed meadows on the area of 3,057 ha by sowing highly productive forage crops and using organic fertilizers.
- Creating conditions for shepherds, providing them with a residential cabin and a solar generator with a capacity of 2 kWh and introducing the limited grazing method using cattle pens and anti-erosion silvopastoral rotation using GPS control.
- Supporting the development of veterinary services for animals in the village and on remote pastures, as well as the reconstruction of the livestock burial site.
- Publication of information materials on the project results and conducting educational seminars and trainings.

Location (administrative district)	Vladimirovka village of the Kostanay district of the Kostanay region
Area (ha)	7,117 ha of pastures on the territory of farmlands and Vladimirovka village and 10,000 ha of pastures on the territory of the neighboring Arakaragay forestry administration, total of 17,117 ha of pastures on the pilot site
Land Owner/ Land User (full name, telephone number) Expert consulting organization	- State Institution "Office of the Akim of the Vladimirovsky Rural County" - Akim of the rural county Kubenov Kabylzhan Zhaksylykovich, tel. 87776375030, e-mail. vladimirovka.akimat@yandex.ru - Public Council for Economic Development of the Vladimirovsky Rural County, Makpal, tel. 87759681462, e-mail. vladimirovka.akimat@yandex.ru. - Director of the Department of Natural Resources Management of the Akimat of the Kostanay region Shaimov Murat Amantayevich, 87142 540166
Nature and climatic zone	The Vladimirsky rural county is located in the northern part of the Kostanay region in the forest-steppe zone. The climate is extremely continental with harsh winters with little snow and hot, dry summers. Spring is short, with unstable temperature conditions, very variable for short periods of time. The snow begins to melt in late March - early April. Autumns are dominated by a cloudy weather and frost begins in the second half of September. The average annual precipitation is 290-360 mm.
Description of the project site: the area of arable land, pastures, hayfields, number of cattle, forage land, etc.)	The Vladimirsky rural county is located in the northern part of the Kostanay region. The Kostanay district is a traditionally livestock farming area. Meat and dairy cattle, sheep and horse breeding is quite advanced in the project area. These activities are among key sources of income for the local population. Currently, the livestock is kept by personal small holdings and farms. Large farms and limited liability partnerships use distant pastures. Personal small holdings and

<table>
<tr><td></td><td>small farms do not use distant pastures, since they are not able to create the necessary pasture infrastructure, it is destroyed (roads, wells, water supply), and cattle farmers do not have basic housing and living conditions (housing, electricity, communications, etc.).

On the territory of the Vladimirovsky rural county there are 7,117 hectares of pasture on the territory of farmlands and Vladimirovka village. The people's livestock headcount in basic cattle units is more than 3320. The Ministry of Agriculture of the Republic of Kazakhstan approved the marginal rate for grazing of 1 basic cattle unit on the forb-feather grass steppe - 7.5-7.7 ha, and on degraded pastures it is 11.1 or more ha. The pastures of the Vladimirovsky rural county have been greatly degraded in recent years because instead of the norm of 7.7-11.1 ha, only 2.0-2.2 ha of pasture are available for a head, therefore a burden on pastures exceeds the standard 3 to 5 times. In this situation, there is a real threat of desertification at more than 7,000 ha of pastures and a sharp decline in the population's living standards in the rural county.

To prevent this threat, the project proposes to organize silvopastoral rotation using 15,000 ha of pastures in the forest fund of the Arakaragai FA for seasonal grazing based on pasture tickets.</td></tr>
<tr><td>Importance of SLM</td><td>Key demo project indicators are presented below
<table>
<tr><th>Indicators</th><th>Baseline</th><th>End of project</th></tr>
<tr><td>Pasture Management and Rational Use Plan for the rural county</td><td>0</td><td>1 plan covering 10,000 ha of forest pastures</td></tr>
<tr><td>Area of restored meadows sown with highly productive forage crops</td><td>0 ha</td><td>3,057 ha</td></tr>
<tr><td>Improving forage lands productivity</td><td>2 Cwt/ha</td><td>6 Cwt/ha</td></tr>
<tr><td>Mobile veterinary services and arrangement of the livestock burial site</td><td>1</td><td>1 veterinary service point and 1 livestock burial site</td></tr>
<tr><td>Persons trained to new pasture management practices</td><td>0 people</td><td>300</td></tr>
</table></td></tr>
<tr><td>Demonstration project monitoring</td><td>For monitoring, the project will sign agreements with employees of the State

Enterprise "Scientific and Production Center for Land Management" and its regional offices in Kostanay. Contracted specialists will identify and analyze areas with signs of severe degradation and pastures with signs of severe natural succession resulting from inadequate grazing. The project staff and contractual specialists will regularly monitor (at the beginning, in the middle and at the end of the project) the state of pastures using monitoring posts created in each rural county at the beginning of the project.

First of all, they will analyze and compare the midterm and final data to see the progress of the project in terms of reducing land degradation and improving the condition of pastures and forage lands. Finally, the project will conduct a socio-economic survey of target groups at the beginning, in the middle and at the end of the project to identify families who have benefited from the project activities and increased their family income.</td></tr>
</table>

Threats to agrolandscapes and land resources	According to preliminary data, about 70% of the lands of the Vladimirovsky rural county are degraded; lands along rivers are severely degraded due to overgrazing. High soil erosion rates are observed there. The main reasons are excessive logging of trees and shrubs and overgrazing. The main threat is overgrazing. The people's livestock number is growing steadily, and uncontrolled grazing in the river floodplains and around settlements accelerates the intensive exploitation of these ecosystems. The influence of degradation processes results in the low productivity of pastures, desertification, growing number of hurricanes and greater distribution of dusty sediments around villages. Natural landscapes are subject to a loss of their vegetation cover, there is a real threat of forest pastures desertification. A wider spread of inedible or unfavorable species of plants on grasslands negatively affects the productivity and health of livestock. The epizootic situation on the territory of the rural county worsens, incomes of the rural population fall
Proposed demonstration activities and expected costs	1. The project will assist in developing the Pasture Management Plan of the Vladimirsky rural county and introducing the anti-erosion silvopastural rotation using 10,000 ha of forest pastures of the Arakaragai FA located around the Vladimirovka village. The total cost of works, including geobotanical research, is USD 15,000. 2. Preparation of design and estimate documentation for cleaning the pit near the Vladimirovka village, compaction of the pit near the Sormovka village, Vladimirovsky rural county, and creation, together with the Akimat and interested farmers, of a service for the restoration of water bodies –USD 75,000. Of these, subsidies from the Ministry of Agriculture of the Republic of Kazakhstan are USD 18,750, Project will cover USD 18,750 and the local Akimat and farmers will cover USD 37,500. 3. Increasing productivity of reclaimed meadows on the area of 3,057 ha by sowing highly productive forage crops and using organic fertilizers. To do this, the project will provide the SEC with seeds of perennial grasses, diesel fuel and organic fertilizers. SEC will perform other works related to soil preparation, sowing crops and fertilizing by raising funds from local residents as a contribution to the pilot project. The total cost of this activity is USD 60,000, of which USD 30,000 will be covered by the Project and USD 30,000 will be covered by the Akimat, farmers and local communities. In the future, co-financing of this activity is possible through state programs of the Ministry of Agriculture of the Republic of Kazakhstan for the development of livestock farming. As soon as the plots are created, the project experts will consult the target audience on pasture rotation issues and the rules that community members need to agree on. 4. Purchasing a cabin and a solar generator with a capacity of 2 kWh and introducing the limited grazing method using cattle pens and anti-erosion silvopastoral rotation using GPS control. The total cost of this activity is USD 20,000, of which USD 10,000 is a subsidy from the republican budget and USD 10,000 will be covered by the Project 5. Supporting the development of veterinary services for animals in the village and on remote pastures, as well as the reconstruction of the livestock burial site. Within the framework of the project, assistance will be provided to the veterinary station of the Vladimirovka village to acquire a mobile veterinary point with a disinfection device. The cost of a mobile veterinary clinic, equipment (race, fixer, etc.) for

	veterinary services and equipping a livestock burial site will total USD 45,000. 6. Conducting education seminars and trainings for 250 livestock farmers, publication of information materials – USD 20,000, 100% will be covered by the project The total cost of the project is USD 295,000, of which: Subsidies from the republic budget – USD 28,750 GEF – USD 108,750 Farmer - USD 63,750 Akimat – USD 60,000
Economic benefits for the local population	The costs of restoration and implementation of a sustainable pasture and land management system are one-time and small but they have a long-term economic effect by providing a sustainable source of income for the local population. The transition to limited cattle grazing in the silvopastural rotation system is expected to generate the additional income of up to 50 kg from each cattle unit or 25 kg of pure meat. At the same time, a farmer will receive KZT 50,000 of additional income from each head of cattle or horse, or each herd with 50 heads will generate KZT 2,500,000 of income, not counting the income from the offspring, milk, koumiss, etc. Pilot project activities are expected to create a school of excellence in integrated natural resource management for this area. During the implementation and upon completion of the project, the local population and members of agricultural cooperative will receive knowledge and skills on sustainable land and pasture management.
Involvement of and benefits for women in the course of the project implementation	To provide women with work in demonstration projects and generate economic benefits, the following activities will be implemented as part of the project: - Encourage and facilitate women participation in restoration activities by recruiting them as executors of pilot projects. - Initiate the creation of councils for joint management of natural resources in each rural county. The Council shall include representatives of the village akimat, agricultural specialists, active farmers, veterans, women entrepreneurs (at least one) and respected village people. They will make decisions on the rules and processes related to land and water use, grazing rotation and seasonal grazing as well as control over production indicators. - To foster the cooperation between rural women and non-governmental women's organizations at the district and regional levels for organizing joint round tables and workshops to raise additional financing for the development of small businesses organized by rural women. - Organize training courses for women on the production of folk-art goods (carpets, clothes, embroidery, etc.) and food products (horse milk, camel milk, cheese, etc.) and assist in the participation of women in project activities at district and regional level. - Involve women from women's organizations in monitoring and evaluating pilot projects, as well as disseminating best practices in neighboring rural areas. - Include measures to improve monitoring and evaluation of gender aspects in the annual project work plans
Involvement of vulnerable population groups	The beneficiaries of the project will provide support to vulnerable groups such as people with disabilities, pensioners and large families.

Involvement of youth (if applicable in the project)	Young people living on the target territories will actively participate in field work during the sowing and harvesting campaigns. Stable demand for certain professions affects the conscious choice of a profession by young people
Training on monitoring for land users, local communities and research institutes	Project results will monitored throughout the project implementation period with the participation of representatives of akimats, land users, local communities, the Agricultural Research Institute and the Kazakh Agro-Technological University named after S.Seifullin. The project will provide training on indicators-based progress tracking. Field visits will be organized to demonstrate practical results. The results of the project will be transferred to the "Extension Center of the agro-industrial complex" for further promotion.

Demonstration project 7: Increasing the productivity of grasslands in the forest-steppe zone of the Kostanay region for the development of livestock farming (Uzunkol demo site)

Goal: To preserve and increase the productivity of grasslands and their rational use for sustainable production of ecologically clean livestock products.

Expected results:

- Prevention of grasslands degradation by organizing the anti-erosion pasture rotation, GPS control over livestock grazing on pastures and improving the pasture infrastructure.
- Accelerated restoration of the productivity of degraded grasslands by sowing highly productive forage crops (sainfoin, wheatgrass, brome, etc.).
- Creating seed plots of highly productive annual and perennial forage crops (Sudanese grass, field peas, sorghum, sainfoin, wheatgrass, brome).
- Creating a veterinary service point for livestock of agricultural enterprises and the population of the rural district.
- Training of members of local communities and heads of Councils on Economic Development of Rural Counties to new grasslands management approaches.

Location (administrative district)	Kostanay region, Uzunkol district, Uzunkol rural county
Area (ha)	16,000 ha (10,000 ha of pastures, 5,000 ha of hayfields, 1,000 ha of sown fodder crops)
Land Owner/ Land User (full name, telephone number) Expert consulting organization	Akim of Uzunkol rural district Nurmaganbetov Kanat Abraevich Phone 87144421146 Email link.akimat@bk.ru Troyana LLP BIN 990740002273 RK 111917 Kostanay region, Fedorovsky district Peshkovka village, Oktyabrskaya str., 1 tel/ fax: 8 714 42 93-3-24 Director: Malyshko Yuri Mikhailovich ALE "Association of Organic Farming" BIN 110340010694 Director: Lopukhin Vadim Vladimirovich tel. +7 777 304 50 68 aoz-rk@mail.ru
Nature and climatic zone	The Uzunkol district is located in the northeast in the forest-steppe zone. The district's forest-steppe area is represented by islets of timber vegetation (kolki) scattered throughout the steppe. The ground surface is flat in the forest-steppe zone.
Description of the project site: the area of arable land, pastures, hayfields, number of cattle, forage land, etc.)	In the Uzunkol district, the area of farmlands is 615.3 thousand ha, arable land - 381.8 thousand ha, perennial plantings - 0.059 thousand ha, pastures - 228.8 thousand ha, hayfields - 4.3 thousand ha and forest – 31,432 ha.

<table>
<tr><td></td><td>Agricultural enterprises own the following livestock: cattle - 5,170 heads, small cattle - 1,981 heads, horses - 1,619 heads, pigs - 582 heads.
Majority of the steppe plots are plowed. Wheat, barley, corn and other crops are cultivated in this area. The unplowed part of the pilot area consists of succulent meadows and grasslands that are used for hay-making and grazing. Therefore livestock farming has advanced well in recent years. It translates to the need for transition to advanced systems of grassland management, expansion of fodder crops areas and establishment of seed production.

The Uzunkol forestry is located on the territory of the district. Forests here consist of birch, aspen, oak, linden, alder. Marsh elder, hawthorn, dogrose, bird cherry and black currant grow in brushwoods.</td></tr>
<tr><td>Importance of SLM</td><td>As part of the pilot project, new technologies will be tested for grasslands ecosystems: expansion of the fodder crops area, introducing the anti-erosion pasture rotation, controlled livestock grazing, establishing seed farming of grasslands grasses, oilseeds, legumes and annual fodder crops.
<table>
<tr><th>Indicators</th><th>Baseline</th><th>End of Project</th></tr>
<tr><td>Pasture Rational Use and Management Plan</td><td>0</td><td>1 Plan for the rural county</td></tr>
<tr><td>Area of GPS-assisted livestock controlled grazing on pastures</td><td>0</td><td>10,000 ha</td></tr>
<tr><td>Area of improved hayfields</td><td>0</td><td>5,000 ha</td></tr>
<tr><td>Mobile veterinary services and arrangement of a livestock burial site</td><td>0</td><td>1 mobile veterinary service and 1 livestock burial site</td></tr>
<tr><td>Area of seed fodder crops</td><td>0</td><td>1,000</td></tr>
<tr><td>People trained in new pasture management practices</td><td>0</td><td>250</td></tr>
</table>
Once the project is completed, these works will be continued in other rural counties of the district, which will significantly increase the profitability of livestock farming and solve the problem of year-round employment of the rural population. It is recommended to replicate the results in neighboring districts located in the forest-steppe zone of the Kostanay region.</td></tr>
<tr><td>Demonstration project monitoring</td><td>Project activities will be monitored twice a year by project participants, The ALE " Association of Organic Farming", Agricultural Research Institute and UNDP experts.</td></tr>
<tr><td>Threats to agrolandscapes and land resources</td><td>Currently, the following factors threaten the agrolandscapes of the forest-steppe system of Kostanay region.
• the structure of agricultural crop areas does not fully comply with evidence-based recommendations on the agricultural system, the crop rotation is not used. This negatively affects the soil fertility;
• the lack of a working capital prevents farmers from using technologies aimed at the transition to organic land use;
• hayfields and pastures have not been sown for the last 15-20 years, and the existing ones are very sparse and have a very low productivity;</td></tr>
</table>

	• unstructured use of pastures and uncontrolled overgrazing can lead to the degradation of pastures and to a greater dependence of agricultural production on climate change conditions; • the absence and high cost of fodder, oilseed, and leguminous seeds, as well as the lack of special seed-growing equipment on the farms, impedes the transition of farmers to new land use systems; • unstable epizootic environment impedes the export of livestock products; • the imbalance between the development of livestock and forage base in the project area is becoming a serious problem. The proposed project seeks to introduce new environmentally friendly soil protection systems taking into account local conditions and global experience.
Proposed demonstration activities and expected costs	These projects are mainly focused on the development of grasslands and livestock farming and include: 1. Assessment of the current state of grassland fields and development of the Pasture Rational Use and Management Plan in accordance with the requirements of the Law of the Republic of Kazakhstan "On Pastures" –USD 10,000, 100% to be covered by the Project. 2. Implementation of real control over the location of livestock by chipping GPS collars and introducing the anti-erosion pasture rotation on the area of 25,000 ha. It is also very relevant to prevent the increasing incidence of cattle theft. Total costs are USD 7500. Of these, USD 6,000 (80%) to be covered by the Project and USD 1,500 (20%) - by the farmer. 3. Equipping a watering point for animals and wildlife, cattle pens in remote areas of pastures – USD 16,000, acquiring a residential cabin for a shepherd- USD 6,000, total of USD 22,000. Of these, 80% (17,600) will be a subsidy from the republican budget and 20% (4,400) to be covered by the Project. 4. Restoration of 1000 hectares of old-aged hayfields and sowing of 1000 ha with wheatgrass, brome and sainfoin seeds: USD 45,000. Of these, 50% (22,500) will be covered by the farmer and 50% (22,500) will be covered by the Project 5. Purchase of a header for the two-phase harvesting of fodder crops and a seed cleaning machine-USD 20,000. Of these, 5000 (25%) are subsidies, USD 12,000 – to be covered by the Project, USD 3000 to be covered by the farmer 6. Purchase of a mobile veterinary service point, equipment (race, fixer, etc.) for veterinary services and equipping a livestock burial site - USD 45,000. 100% to be covered by the project. 7. Conducting educational workshops and trainings, publication of information materials - USD 20,000, 100% to be covered by the Project The total cost of the pilot project is –USD 209,000, of which: Subsidies from the republican budget – USD 22,600. GEF – USD 91,900. Farmer – USD 54,000. Existing financing of local Akimat from the republican budget for the maintenance of veterinary staff, veterinary laboratories and other environmental programs – USD 60,000

Economic benefits for the local population	Improving the fertility of arable land will increase the yield while reducing the area of the grain area. An increase in feed production will stop pasture degradation and increase livestock and crop production by 20%. The creation and registration of a fodder crops seed farm. A high protein fodder base will ensure the stable development of livestock farming in the region, and this will help to expand the crop area of high-protein fodder crops. All proposed measures will create additional jobs, the community will receive stable employment and increase rural income by 30%. With the appearance of new jobs of a new profile, there will be a need for professional growth. The economic effect will be determined during the implementation and at the end of the project.
Involvement of and benefits for women in the course of the project implementation	The project takes into account all gender aspects: equal gender rights in the production and distribution of products. Women will take an active part in the project implementation as direct beneficiaries.
Involvement of vulnerable population groups	The beneficiaries of the project will provide support to vulnerable groups such as people with disabilities, pensioners and large families.
Involvement of youth (if applicable in the project)	Young people living on the target territories will actively participate in field work during the sowing and harvesting campaigns. Stable demand for certain professions affects the conscious choice of a profession by young people.
Training on monitoring for land users, local communities and research institutes	Project results will be monitored throughout the project implementation period with the participation of representatives of akimats, land users, local communities, ALE ‘Association of Organic Farming’, Agricultural Research Institute. The project will provide training on indicators-based progress tracking. Field visits will be organized to demonstrate practical results. The results of the project will be transferred to the "Extension Center of the agro-industrial complex" for further promotion.

Northern Kazakhstan Oblast (2 sites totaling 24,000 ha)

Demonstration project 8: Integrated pasture management and use for sustainable livestock production in the forest-steppe zone of the Northern Kazakhstan oblast (Mamlyut demo site)

Goal: Preserving the productivity of grasslands and their rational use for sustainable production of ecologically clean livestock products and the development of eco-hunting, fishing, beekeeping, woodworking and other types of non-traditional income-generating activities.

Expected results:

- Preventing the degradation of grasslands by organizing the environmentally friendly pasture rotation, GPS control over grazing on improved pastures
- Development of alternative income-generating activities (eco-hunting, fishing, beekeeping, woodworking, etc.)
- Creation of seed plots of highly productive annual and perennial forage crops (sudanese grass, field peas, sorghum, sainfoin, wheatgrass, brome)
- Organizing the mobile veterinary services for agricultural enterprises and the population of the rural county
- Training of local community members and leaders of Councils for Economic Development of Rural Counties in integrated pasture management approaches

Location (administrative district)	North-Kazakhstan region, Mamlyut district, Mamlyut rural county
Area (ha)	10,000 ha of pastures and 2,000 ha of seed forage crops
Land Owner/ Land User (full name, telephone number) Expert consulting organization	Director of the Department of Agriculture of the North Kazakhstan Region Bekshenov Erbolat Muratovich, 87772733365930, Deputy Akim of the Mamlyut district Nasyrov Iskak Ismagilovich 87772739875, Belovsky rural county: Director of Beloye Agro LLP Alzhanov Talgat Seilbekovich 8778 9889110, Kulik LLP -Kulik Nikolay Petrovich 7713618880. Problems: grain production, forage base improvement, pasture improvement, pasture management plan, wind lifts, well, watering point, livestock burial site, veterinary service point.
Nature and climatic zone	Mamlyut district is located in the forest-steppe zone in the north of Kazakhstan. Its steppes are lying between the stands of pine forest. The ground surface is flat in the forest-steppe zone.
Description of the project site: the area of arable land, pastures, hayfields, number of cattle, forage land, etc.)	According to the administrative-territorial division in the Mamlyut region, there are 11 rural counties, Mamlyutka town, 39 rural settlements. The total area of the Mamlyut district is 410,001 ha, of which pasture lands are 126,318 ha. There are the following land categories: - farmlands – 292,430 ha; - lands of settlements – 44,746 ha; - lands for industry, transport, communications, space activities, defense, national security and other non-agricultural purposes – 1,585 ha; - reserve lands – 30,981 ha. The vegetation covering uncultivated plots consists of feather grass, sheep's fescue, couch grass, timothy grass and awnless brome and other bee plants. The fertile soil thickness is 45-60 cm.

<table>
<tr><td></td><td>The Mamlyut Forest Administration is located in the district. Forests here consist of pine, birch, aspen, oak, linden and undergrowth shrubs.
There are 12 veterinary stations and 26 livestock burial sites in the district.

Currently, there are 19,619 heads of cattle, 19,063 heads of small cattle, 5,500 horses in the Mamlut district. To provide farm animals in the Mamlyut district with food, there is a total of 126,318 ha of pasture lands. 31,543 ha of pastures are located within the settlement boundaries, 16,934 ha of pastures are reserve lands.
The pasture area of the Mamlyut district provides enough food for its livestock. There are no distant pastures that are used for grasslands farming. In the interests of further development of grain and livestock production, there is a need for transition to advanced systems of land use, expansion of fodder crops areas and establishment of seed production.</td></tr>
<tr><td>Importance of SLM</td><td>As part of the pilot project, new technologies will be tested for grasslands ecosystems: expansion of the fodder crops area, introducing the anti-erosion pasture rotation, controlled livestock grazing, establishing seed farming of grasslands grasses, oilseeds, legumes and annual fodder crops

<table>
<tr><th>Indicator</th><th>Baseline</th><th>End of Project</th></tr>
<tr><td>Pasture Rational Use and Management Plan for the rural county</td><td>0</td><td>1 plan for the rural okrug</td></tr>
<tr><td>Area of GPS-controlled livestock grazing in ecologically friendly pasture rotation on improved pasture lands (leaving 1 non-grazing pen for resting)</td><td>0</td><td>10,000 ha</td></tr>
<tr><td>The area of seed crops of fodder, legumes and oilseeds</td><td>0</td><td>2,000</td></tr>
<tr><td>Development of alternative income-generating activities (eco-hunting, fishing, beekeeping, woodworking, etc.)</td><td>0</td><td>5 farms with alternative activities</td></tr>
<tr><td>Organization of mobile veterinary services and arrangement of a livestock burial site</td><td>0</td><td>1 mobile veterinary service point and 1 livestock burial site</td></tr>
<tr><td>People trained in new pasture management practices</td><td>0</td><td>250</td></tr>
</table></td></tr>
<tr><td>Demonstration project monitoring</td><td>Project activities will be monitored twice a year by project participants, ALE “Association of Organic Farmers”, Agricultural Research Institute, UNDP experts</td></tr>
<tr><td>Threats to agrolandscapes and land resources</td><td>Currently, the following factors threaten the agrolandscapes of the forest-steppe zone of the North Kazakhstan region:
- decreasing soil fertility due to cereal crop monoculture cultivation;
- lack of a working capital for the transition to environmentally friendly land use;
- degradation of grasslands due to unsystematic use and uncontrolled overgrazing;
- accelerating negative impact of climate change;
- unstable epizootic situation;
- the imbalance between the development of livestock and forage.</td></tr>
</table>

	The proposed project seeks to introduce new environmentally friendly, soil-protective land use systems taking into account the local conditions and global experience.
Proposed demonstration activities and expected costs	The proposed project activities are mainly focused on the development of grasslands farming and livestock farming. They include: 1. Assessment of the current state of grasslands and development of the Pasture Rational Use and Management Plan in accordance with the requirements of the Law of the Republic of Kazakhstan "On Pastures" –USD 10,000, 100% to be covered by the Project 2. Implementation of control over the movement of livestock by chipping GPS collars with the environmentally friendly pasture rotation on an area of 10,000 hectares. Total costs are USD 7,500. Of which, USD 6,000 (80%) to be covered by the Project and USD 1,500 (20%) to be covered by the farmer 3. Promoting the development of non-traditional income-generating activities on forest pastures. Total – USD 30000. Of which, USD 15,000 to be covered by the Project and USD 15,000 to be covered the stakeholder. 4. Sowing 2,000 ha with seeds of wheatgrass, brome and sainfoin. Total USD 45,000. Of these, 50% (USD 22,500) to be covered by the Farmer and 50% (USD 22,500) to be covered by the Project. 5. Purchase of a header for the two-phase harvesting of fodder crops and a seed cleaning machine-USD 20,000. Of these, USD 5000 (25%) are subsidies, USD 12,000 – to be covered by the Project, USD 3000 to be covered by the farmer. 6. Purchase of a mobile veterinary service point, equipment (race, fixer, etc.) for veterinary services and equipping a livestock burial site - USD 45,000. USD 45,000 to be covered by the Project. 7. Conducting educational workshops and trainings, publication of information materials - USD 20,000, 100% to be covered by the Project The total cost of the pilot project is USD 237,500, of which: Subsidies from the republican budget – USD 5,000 GEF - USD 110,500 Farmer – USD 62,000 Existing financing of local Akimat from the republican budget for the maintenance of veterinary staff, veterinary laboratories and other environmental programs – USD 60,000
Possible negative impact on the environment or socio-economic situation and ways to mitigate them through the project	There are no environmental threats from the project. The implementation of this project will improve the socio-economic situation. Creation of a veterinary service point and a livestock burial site will have a positive effect on the epizootic state of the rural county and will also allow the farm to provide paid veterinary services and livestock burial services to the region's livestock farms and private small holdings. The creation and registration of a fodder crops seed farm will ensure the stable development of feed production and livestock farming and will expand the crop area of high-protein fodder crops.
Economic benefits for the local population	Improving the fertility of arable land will increase the yield while reducing the area of the grain area. An increase in feed production will stop pasture degradation and increase livestock and crop production by 20%. Proposed measures on the development of non-traditional activities will create additional jobs, the community will receive stable employment and increase rural income by 30%. With the appearance of new jobs of a new profile, there will be a need for professional growth.

Involvement of and benefits for women in the course of the project implementation	The project takes into account all gender aspects: equal gender rights in the production and distribution of products. Women will take an active part in the project implementation as direct beneficiaries
Involvement of vulnerable population groups	The beneficiaries of the project will provide support to vulnerable groups such as people with disabilities, pensioners and large families.
Involvement of schoolchildren youth (if applicable in the project)	Young people living on the target territories will actively participate in field work during the sowing and harvesting campaigns. Stable demand for certain professions affects the conscious choice of a profession by young people.
Training on monitoring for land users, local communities and research institutes	Project results will be monitored throughout the project implementation period with the participation of representatives of akimats, land users, local communities, ALE “Association of Organic Farming”, Agricultural Research Institute. The project will provide training on indicators-based progress tracking. Field visits will be organized to demonstrate practical results. The results of the project will be transferred to the "Extension Center of the agro-industrial complex" for further promotion.

Demonstration project 9: Rational use of pastures for the development of livestock farming and production of value-added products in the south of the forest-steppe zone of the North Kazakhstan region (Essil demo site)

Expected results:

- Preventing the degradation of hay-pasture lands by organizing the anti-erosion pasture rotation and GPS control over grazing on improved pastures.
- Developing the production of value-added livestock products (breeding, production of koumiss, processing of dairy products, etc.)
- Creating seed plots of highly productive annual and perennial forage crops (Sudanese grass, field peas, sorghum, sainfoin, wheatgrass, brome).
- Organizing the mobile veterinary services for agricultural enterprises and the population of the rural county.
- Training of local community members and leaders of Councils for Economic Development of Rural Counties in integrated pasture management approaches.

Location (administrative district)	North-Kazakhstan region, Yesil district, Mamlyut rural county
Area (ha)	10,000 ha of pastures and 2,000 ha of seed forage crops
Land Owner/ Land User (full name, telephone number) Expert consulting organization	Director of the Department of Agriculture of the North Kazakhstan Region Bekshenov Erbolat Muratovich, 87772733365930, Head of the Department of Natural Resources and Environmental Management Vasiliy Alekseevich Lobanchuk, 87778958636, 87152-533639, director of the Yesil Forestry Administration Sokolovsky Valery Lyudvikovich, 87152-53396, 87777955641 Forest management problems, forest fires, pasture use. Farming problems - grain production; creation of a forage base; improvement of pastures.
Nature and climatic zone	Yesil district is located in the south of the forest-steppe zone of Kazakhstan - in the transition zone where forest-steppe turns into steppe.
Description of the project site: the area of arable land, pastures, hayfields, number of cattle, forage land, etc.)	According to the administrative-territorial division in the Yesil district, there are 16 rural counties, 56 rural settlements. The total area of the Yesil district is 514,144 ha, of which pasture lands are 120,176 ha. There are the following land categories: - farmlands – 400,065 ha; - lands of settlements – 60,071 ha; - lands for industry, transport, communications and other non-agricultural purposes – 2,071 ha; - lands of water fund – 3,609 ha; - lands of forest fund – 32,742 ha; - reserve lands – 15,586 ha. The Yesil Forest Administration is located in the district. Forests here consist of pine, birch, aspen, oak, linden and undergrowth shrubs. Sagebrush, carrot, fescue, burnet, dropwort, bush grass and other herbs are growing on the uncultivated plots of steppe and steppe meadows. The soil cover of the district is diverse. The most common soils are ordinary chernozems. Meadow-chernozem, meadow, alkali soils, solods and solonetz cover a smaller area, in comparison with ordinary chernozems. A special place

<table>
<tr><td></td><td>in the soil cover is taken by leached chernozems which were formed on well-drained elevated areas (steep slopes, drifts).

The district has 16 veterinary stations, 16 centers for artificial insemination, 7 slaughterhouses, 30 anthrax burial sites and 57 livestock burial sites.
Currently, there are 20,860 heads of cattle, 23,41 heads of small cattle, 5,700 horses in the Yesil district. To provide farm animals with food, there are only 120,176 hectares of pasture lands in the Yesil district. 44,529 ha of pasture are located within the boundaries of settlements, 7,392 ha of pasture lands are located on the reserve lands. There is a steady upward trend in the livestock headcount which may create threats to forests in the future.</td></tr>
<tr><td>Importance of SLM</td><td>As part of the pilot project, new technologies will be tested for grasslands ecosystems: expansion of the fodder crops area, introducing the anti-erosion pasture rotation, controlled livestock grazing, establishing seed farming of grasslands grasses, oilseeds, legumes and annual fodder crops and development of livestock breeding.

<table>
<tr><th>Indicator</th><th>Baseline</th><th>End of Project</th></tr>
<tr><td>Pasture Rational Use and Management Plan for the rural county</td><td>0</td><td>1 plan for the rural county</td></tr>
<tr><td>Area of GPS-controlled livestock grazing in ecologically friendly pasture rotation on improved pasture lands (leaving 1 non-grazing pen for resting)</td><td>0</td><td>10,000 ha</td></tr>
<tr><td>The area of seed crops of fodder, legumes and oilseeds</td><td>0</td><td>2,000</td></tr>
<tr><td>Promoting the production of value-added products: breeding, production of koumiss, processing of dairy and other products in personal small holdings.</td><td>0</td><td>5 personal small holdings producing value-added products</td></tr>
<tr><td>Organization of mobile veterinary services and arrangement of a livestock burial site</td><td>0</td><td>1 mobile veterinary service point and 1 livestock burial site</td></tr>
<tr><td>People trained in new pasture management practices</td><td>0</td><td>250</td></tr>
</table>
</td></tr>
<tr><td>Demonstration project monitoring</td><td>Project activities will be monitored twice a year by project participants, ALE “Association of Organic Farmers”, Agricultural Research Institute, UNDP experts</td></tr>
<tr><td>Threats to agrolandscapes and land resources</td><td>Currently, the following factors threaten the agrolandscapes of the forest-steppe zone of the North Kazakhstan region:
- decreasing soil fertility due to cereal crop monoculture cultivation;
- lack of a working capital to develop the production of value-added products;
- degradation of grasslands due to unsystematic use and uncontrolled overgrazing;
- accelerating negative impact of climate change;
- unstable epizootic situation;
- the imbalance between the development of livestock and forage.</td></tr>
</table>

	The proposed project seeks to introduce new environmentally friendly, soil-protective land use systems taking into account the local conditions and global experience
Proposed demonstration activities and expected costs	The proposed project activities are mainly focused on the development of grasslands farming and livestock farming. They include: 1. Assessment of the current state of grasslands and development of the Pasture Rational Use and Management Plan in accordance with the requirements of the Law of the Republic of Kazakhstan "On Pastures" – USD 10,000, 100% to be covered by the Project. 2. Implementation of control over the movement of livestock by chipping GPS collars with the environmentally friendly pasture rotation on an area of 10,000 hectares. Total costs are USD 7,500. Of these, USD 6,000 (80%) to be covered by the Project and USD 1,500 (20%) to be covered by the farmer 3. Promoting the development of value-added products. Total of USD 50,000. Of these, USD 25,000 to be covered by the Project and USD 25,000 to be covered by the stakeholder. 4. Sowing 2,000 ha with seeds of wheatgrass, brome and sainfoin. Total USD 45,000. Of these, 50% (USD 22,500) to be covered by the Farmer and 50% (USD 22,500) to be covered by the Project. 5. Purchase of a header for the two-phase harvesting of fodder crops and a seed cleaning machine-USD 20,000. Of these, USD 5000 (25%) are subsidies, USD 12,000 – to be covered by the Project, USD 3000 to be covered by the farmer. 6. Purchase of a mobile veterinary service point, equipment (race, fixer, etc.) for veterinary services and equipping a livestock burial site - USD 45,000. USD 45,000 to be covered by the Project. 7. Conducting educational workshops and trainings, publication of information materials - USD 20,000, 100% to be covered by the Project The total cost of the pilot project is USD 257,500, of which: Subsidies from the republican budget – USD 5,000 GEF – USD 120,500 Farmer – USD 72,000 Existing financing of local Akimat from the republican budget for the maintenance of veterinary staff, veterinary laboratories and other environmental programs - USD 60,000
Possible negative impact on the environment or socio-economic situation and ways to mitigate them through the project	There are no environmental threats from the project. The implementation of this project will improve the socio-economic and ecological situation in the village. Creation of a veterinary service point and a livestock burial site will have a positive effect on the epizootic state of the rural county through provision of mobile veterinary services and livestock burial services to the region's livestock farms and private small holdings. Creation and registration of a fodder crops seed farm will ensure the stable development of feed production and livestock farming and will expand the crop area of high-protein fodder crops.
Economic benefits for the local population	Improving the fertility of arable land will increase the yield while reducing the area of the grain area. An increase in feed production will stop pasture degradation and increase livestock and crop production by 20%. Proposed measures on the development of non-traditional activities will create additional jobs, the community will receive stable employment and increase

	rural incomes by 30%. With the appearance of new jobs of a new profile, there will be a need for professional growth.
Involvement of and benefits for women in the course of the project implementation	The project takes into account all gender aspects: equal gender rights in the production and distribution of products. Women will take an active part in the project implementation as direct beneficiaries
Involvement of vulnerable population groups	The beneficiaries of the project will provide support to vulnerable groups such as people with disabilities, pensioners and large families.
Involvement of schoolchildren youth (if applicable in the project)	Young people living on the target territories will actively participate in field work during the sowing and harvesting campaigns. Stable demand for certain professions affects the conscious choice of a profession by young people.
Training on monitoring for land users, local communities and research institutes	Project results will be monitored throughout the project implementation period with the participation of representatives of akimats, land users, local communities, ALE “Association of Organic Farming”, Agricultural Research Institute. The project will provide training on indicators-based progress tracking. Field visits will be organized to demonstrate practical results. The results of the project will be transferred to the "Extension Center of the agro-industrial complex" for further promotion

Pavlodar Oblast (1 site totaling 15,000 ha)

Demonstration site 10: Innovative approaches to pasture ecosystem management for sustainable livestock development and conservation of biodiversity in Irtysh floodplain forests (Aktogay demo site)

Goal: Organizing the integrated use of pastures on floodplain and dry lands for sustainable production of livestock products and better living conditions of the rural population on the Irtysh land in Pavlodar.

Expected results:

- Developing the Pasture Rational Use and Management Plan in accordance with the requirements of the Law of the Republic of Kazakhstan "On Pastures" in the Zholboldy rural county of the Aktogay district of the Pavlodar region.
- Developing the pasture infrastructure and introducing the anti-erosion pasture rotation supported by the limited grazing on distant pasture areas using electronic GPS control.
- Demonstrating innovative agricultural technologies to increase the productivity of floodplain meadows and degraded hayfields and pastures in arid lands.
- Creation of a livestock slaughtering and processing plant with a refrigerator.
- Organizing the mobile veterinary services for agricultural enterprises and the population of the rural county and arrangement of a livestock burial site.
- Conducting educational workshops on the application of innovative approaches in the integrated management of floodplain and arid grasslands in the Irtysh region.

Location (administrative district)	Pavlodar region, Aktogay district, Zholboldy rural county
Area (ha)	10,000 ha of pastures in drylands, 3,000 ha of floodplain meadows, 2,000 ha of seed crops.
Land Owner/ Land User (full name, telephone number) Expert consulting organization	Deputy Head of the Department of Agriculture Marat Shugaev. 87771386721, Akim of the Zholboldy rural county Nuretova Sholpan Baygeldinova 87768166234, professor of Pavlodar State University named after S. Toraigyrov Habykenov Temirbolat Abeshovich 87775451018. Director of Aktogay-Agro Firm LLP Igor Golovashov, Director of Aktogay Agro farm Victor Vladimirovich Dubovitsky. Manager of Aschysay farm Maksat Yerzhan.
Nature and climatic zone	Aktogay district is located in the northwestern part of the Pavlodar region. The administrative center of the district - the Aktogay village- is located 116 km north-west of the regional center, on the left bank of the Irtysh. Area is 9.8 thousand km² (7.69% of the region). It is the 5th largest district in the region. The Aktogay district is located in the south of the West Siberian Plain, on the left bank of the Irtysh. In the north it borders with the Irtysh region, in the south - with the rural areas of the cities Aksu and Ekibastuz, in the west - with the Akmola and North Kazakhstan regions, in the east - with the Kachir and Pavlodar districts along the Irtysh river. The climate is extremely continental. The average temperature in January is −17 ° -19 ° C, in July - + 20 ° + 21 ° C. The annual amount of precipitation is 250-300 mm. The terrain of its territory is flat (Irtysh plain). There are proven reserves of natural building materials. Minerals: salt, sands, clay. The rivers Irtysh, Selety, Shiderty flow through the territory of the district, there are lakes Zhalauly, Tobylgysor, Taykonur, Sasyksor and others. The soils are chestnut, there are

<table>
<tr><td></td><td>alkaline spots near the lakes. During the virgin and fallow lands development, a significant part of the district was plowed.

From a vegetation perspective, the area is forbs and feather grass steppe, rich forbs of floodplain meadow vegetation grow in the river valleys: poplar, maple, willow, and spiraea. There are wolfs, foxes, hares, corsacs, badgers, marmots, hamsters.

The population is 16.0 thousand people. The average population density is 1.43 people per 1 km².

The public road of republican significance Leninsky-Irtyshsk-Russkaya Polyana, section 43–128 km (85 km), and Aktogai-Sholaksor road of regional significance, section 0–164 km (164 km), pass through the district.

There are 12 rural counties in the district. Pilot Zholboldy rural district was formed by the merger of the former Auelbekov and Zholboldy rural counties</td></tr>
<tr><td>Description of the project site: the area of arable land, pastures, hayfields, number of cattle, forage land, etc.)</td><td>The agricultural specialization of the district is dairy farming, horse breeding, grain and pasture farming. Sunflower, corn, sugar beets are grown and small leather (sheepskin) is produced. Zholboldy rural county has got rich pasture resources and a promising new technology for GPS navigation in livestock farming to ensure the safety of the entire livestock population. Chipping of animals helps to track the location of a herd online at any time, even from home.

The necessary infrastructure will be connected to the fields of Aktogay-Agro LLP - 6.2 km of water pipes which will allow to increase irrigated areas to 2.5 thousand hectares and open a dairy farm for 600 animals with the prospect of expanding it to 1200. Irrigated agriculture will be revived in the Irtysh region. new equipment will appear, modern technologies will be applied. A demonstration of a crop rotation is planned on the fields of Aktogay-Agro LLP: grain, leguminous crops and oilseeds. Legumes - peas, chickpeas, corn, cereals-millet, buckwheat; fodder – Sudanese grass, wheatgrass; sugar beets on irrigation. Seed production of fodder crops - Sudanese grass, fodder peas, sainfoin, wheatgrass, brome, birds-foot trefoil</td></tr>
<tr><td>Importance of SLM</td><td>The Aktogay region has the potential to increase the productivity of arable land, floodplain meadows and pastures in arid lands. Nowadays, the question of the effective and rational use of current lands is very important for the development of livestock farming as a main income source for the rural population. There are several issues related to the use of distant pastures, creation of highly productive forage lands, improvement of the pasture infrastructure and ensuring the epizootic well-being in the district. The project will implement the following measures:
<table>
<tr><th>Indicators</th><th>Baseline</th><th>End of Project</th></tr>
<tr><td>Development of the Integrated plan for the natural resources use of the Aktogay district (non-irrigated and irrigated arable land, floodplain meadows and pastures, lakes, forests, abandoned land, etc.)</td><td>0</td><td>1 integrated plan for the district</td></tr>
<tr><td>Development of the Pasture Management Plan in accordance with the requirements of the Law of the Republic of Kazakhstan “On Pastures”</td><td>0</td><td>1 Pasture Management Plan for Zholboldy rural county.</td></tr>
<tr><td>Development of the pasture infrastructure and introduction of the anti-erosion pasture rotation supported by the limited grazing on distant pasture areas using electronic GPS control</td><td>0</td><td>15,000 ha</td></tr>
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<tr><td></td><td>
<table>
<tr><td>Demonstration of agricultural technologies that increase the productivity of floodplain meadows (2000 ha) and degraded hayfields and pastures by sowing heaps of seeds and harvesting with the stripper header (5000)</td><td>0</td><td>7,000 ha, including 2000 ha of seed crops</td></tr>
<tr><td>Revival of irrigated agriculture on the Irtysh floodplain with the use of new equipment and modern technologies for crops irrigation</td><td>0</td><td>1000</td></tr>
<tr><td>Creation of a livestock slaughtering and processing plant with a refrigerator</td><td>0</td><td>1 plant with a refrigerator</td></tr>
<tr><td>Organization of the mobile veterinary services and arrangement of a livestock burial site</td><td>0</td><td>1 mobile veterinary service point and 1 livestock burial site</td></tr>
<tr><td>Local residents trained on new methods of integrated nature resource management</td><td>0</td><td>300 people.</td></tr>
</table>

Once the project is completed, it is recommended to replicate results in neighboring districts of the Pavlodar region.
</td></tr>
<tr><td>Demonstration project monitoring</td><td>Project activities will be monitored twice a year by project participants, PF “Union of Farmers of Kazakhstan”, Pavlodar Agricultural Experimental Station, Pavlodar State University named after S. Toraigyrov, UNDP experts.</td></tr>
<tr><td>Threats to agrolandscapes and land resources</td><td>Currently, the following factors threaten the agrolandscapes of the Aktogay district:
- unsystematic land use negatively affects soil fertility and has become disadvantageous for farmers;
- seeded hayfields and pastures have a very low productivity; there is a threat of their desertification;
- uncontrolled overgrazing can lead to the degradation of pastures and pose a threat to forests and biodiversity of Irtysh river;
- unstable epizootic environment impedes the export of livestock products;
- the imbalance between the development of livestock and forage base in the project area is becoming a serious problem.
The proposed project provides seek to introduce new environmentally friendly and integrated land use systems, taking into account local conditions and farmers' requests.</td></tr>
<tr><td>Proposed demonstration activities and expected costs</td><td>The proposed project activities are mainly focused on the development of grasslands farming and recreational activities. They include:
1. Development of the Integrated plan for the natural resources use of the Aktogay district (non-irrigated and irrigated arable land, floodplain meadows and pastures, lakes, forests, abandoned land, etc.) - USD 20,000.
2. Assessment of the current state and development of the Integrated Land Use and Pasture Management Plan in accordance with the requirements of the Law of the Republic of Kazakhstan “On Pastures” –USD 10,000, 100% to be covered by the Project
3. Development of the anti-erosion pasture rotation and implementation of control over the movement of livestock by chipping GPS collars on an area</td></tr>
</table>

	of 15,000 hectares. Total costs are USD 7,500. Of these, USD 6,000 to be covered by the Project and USD 1,500 to be covered by the farmer 4. Drilling a well, equipping a watering point with a wind lift in remote areas of pastures, acquiring a residential cabin for a shepherd, a solar generator, total of USD 32,000. Of these, 80% (25,600) will be a subsidy from the republican budget and 20% (6,400) to be covered by the Project. 5. Revival of irrigated agriculture on the Irtysh floodplain with the use of new equipment and modern technologies for irrigation of crops on an area of 1000 ha. The total costs are USD 45,000. Of these, 11,250 (25%) is a subsidy from the republican budget, USD 11,250 (25%) to be covered by the Project and USD 22,500 (50%) to be covered by the Farmer. 6. The purchase of a header for the two-phase harvesting of fodder crops and a seed cleaning machine-USD 20,000. Of these, USD 5000 (25%) are subsidies, USD 12,000 – to be covered by the Project, USD 3000 to be covered by the farmer 7. Creation of a livestock slaughtering and processing plant with a refrigerator - USD 46,150. Of these, USD 11,540 is a subsidy of from the republican budget, USD 11,540 to be covered by the Project and USD 23,070 – by the farmer. 8. Purchase of a mobile veterinary service point, equipment (race, fixer, etc.) for veterinary services and equipping a livestock burial site - USD 45,000 9. Conducting educational workshops and trainings, publication of information materials - USD 20,000, 100% to be covered by the Project. The total cost of the pilot project is USD 305,650, of which: Subsidies from the republican budget – USD 53,390. GEF -110,190. Farmer -82,070. Existing financing of local Akimat from the republican budget – USD 60,000
Economic benefits for the local population	Organizing controlled grazing and pasture rotation will stop pasture degradation and increase livestock productivity by 20%. Creating the infrastructure for the development of livestock products processing will create additional jobs. All proposed measures will create stable employment and increase rural incomes by 30%. Creation of a veterinary service point and a livestock burial site will have a positive effect on the epizootic state of the rural county and will also allow the farm to provide paid veterinary services and livestock burial services to the region's livestock farms and private small holdings. With the appearance of new jobs of a new profile, there will be a need for professional growth. The trainings provided by the project will help local communities to increase the knowledge and experience in the field of pasture management and maintaining the integrity of the natural ecosystems of Irtysh.
Involvement of and benefits for women in the course of the project implementation	The project takes into account all gender aspects: equal gender rights in the production and distribution of products. Women will take an active part in the project implementation as direct beneficiaries, especially in activities of ecotourism, water-mud and koumiss therapy and horse riding and others
Involvement of vulnerable population groups	The beneficiaries of the project will provide support to vulnerable groups such as people with disabilities, pensioners and large families.

Involvement of schoolchildren youth (if applicable in the project)	Young people living on the target territories will actively participate in field work during the sowing and harvesting campaigns. Stable demand for certain professions affects the conscious choice of a profession by young people.
Training on monitoring for land users, local communities and research institutes	Project results will be monitored throughout the project implementation period with the participation of representatives of akimats, land users, local communities, Agricultural Research Institute and Pavlodar university named after S. Toraigyrov. The project will provide training on indicators-based progress tracking. Field visits will be organized to demonstrate practical results. The results of the project will be transferred to the "Extension Center of the agro-industrial complex" for further promotion.

Annex 19: Extension services to agribusiness in Kazakhstan: a baseline summary

The Kazakh extension system in the agro-industrial complex (in Kazakh terminology it means provision of information and consulting services to agribusiness entities), although generally seeking to enhance the country's food security, only partially addresses the ongoing degradation of ecosystems and accelerating climate change and it basically ignores gender aspects of agricultural production. The existing system shows a lack of coordination and consistency between its key actors when it comes to planning and implementation, as well as monitoring and performance evaluation. There is no universally agreed concept, no assessment of the farmers' needs, no system of staff selection and training (trainers, consultants and experts), no efforts to encourage farmers and their associations to participate in the extension system, no continuity of experience, etc.

The extension system is funded by the state, meaning that agribusinesses receive information and consulting services free of charge; this is one of the indirect support measures for agricultural producers. After a series of reorganizations over the past five years, the state extension system is now represented by the National Agrarian Scientific and Educational Center (NASEC), the Center of Agrarian Competence of the National Chamber of Entrepreneurs Atameken (at least until the end of 2019) and specific initiatives in the regions.

The national budget program 267 "Improving the accessibility of knowledge and scientific research", administered by the Ministry of Agriculture, plans to finance the extension activities in 2020-2022. It seeks to ensure a direct access for agricultural producers to the results of scientific, technical and innovative activities and accelerated introduction of advanced agricultural technologies. The information support approaches for agribusinesses remain the same: organize the activities of the Center of Agrarian Competence, engage national experts in methodological work, train lecturers, deliver workshops at model farms and operate a call center.

Center of Agrarian Competence of the National Chamber of Entrepreneurs (NCE) Atameken

NCE Atameken inherited the extension system that had been developing in Kazakhstan since 2006. Until 2015, the system consisted of 160 rural information and consulting centers that operated at the branches of KazAgroMarketing JSC, and 11 extension centers in the premises of the scientific research institutes of KazAgroInnovation JSC. Both joint-stock companies were within the structure of the National Management Holding "KazAgro" of the Ministry of Agriculture.

Rural information and consulting centers were created to provide farmers with access to information, technology and advisory services through market analysis, workshops and dissemination of newsletters. Due to a low capacity of the centers' staff, their functions were limited to collecting requests from farmers and transferring them to the regional branches of KazAgroMarketing JSC.

Extension centers of KazAgroInnovation JSC conducted training workshops and provided consultations, both in the premises of their institutes and on-site. For three years (from 2010 to 2012), remote consulting was practiced – using a hotline. The content of trainings and consultations was designed based upon recommendations of research institutes, as well as experts from universities, agricultural financial institutions and agricultural departments. Due to the lack of knowledge about modern approaches and sustainable farming technologies in the system of KazAgroInnovation JSC, specialists from non-governmental organizations or foreign experts were involved in farmer training. However, such cooperation was more ad-hoc than a common practice. Extension centers faced the following key challenges in their work:

- lack of methodologies to improve the farmers' skills in the field of sustainable farming, as well as lack of trainers and experts who could provide such a training;
- an outdated technological base of research institutes and experimental stations where the training was delivered;
- a limited number of workshop participants because farmers and farm specialists were busy with the production process or there was no interest on the part of large and successful agricultural producers; and
- general misunderstanding of the importance of sustainable natural resource management in agriculture.

In 2016, the extension system was transferred to a competitive environment. From 2016 to 2019, the Atameken National Chamber of Entrepreneurs was engaged in implementing the budget subprogram on provision of information and consulting services to agribusiness entities (267-100). The services were provided in the form of consultations and workshops, and sometimes they covered resource-saving technologies, organic production and climate factors. There was a single call-

center. The Center created a database of video-workshops and video-lessons (more than 260 videos in total) on various agricultural topics, which were publicly available until the beginning of 2020 (on the website agrobilim.kz) and farmers had an opportunity to upgrade their skills remotely. These materials are not available anymore.

213. Compared with previous experience, the Center of Agrarian Competence enhanced and further elaborated thematic trainings, involved practitioners and succeeded in digitalizing the extension system. However, the general problems of the Kazakh extension system remain the same and issues of its sustainability and continuity of experience have not yet been resolved.

National Agrarian Scientific and Educational Center (NASEC)

The Center was created on the basis of the reorganized KazAgroInnovation JSC in 2015 as a sole operator aimed at supporting the interaction between agricultural research institutions, government departments and business companies. Its sole shareholder is the Ministry of Agriculture of the Republic of Kazakhstan. Improving the extension efficiency and use of knowledge in the agro-industrial complex is one of the strategic areas of the NASEC work. These activities are at the initial development stage and are expected to include organization of innovation dissemination centers, identification of demonstration sites and selection of specialists and experts. This work will rely on internal capacities of the Center, its subsidiaries and involvement of international expertise in order to increase the economic profitability of the scientific research. The main emphasis will be put on development and implementation of modern farming and agricultural processing technologies.

Digital Hub "Parasat"

This extension center for agricultural producers of the Kostanay region was the initiative of the Akimat of the Kostanay region and Kostanay State University named after A. Baitursynov. It was launched in 2018 in support of the agricultural sector digitalization, which is one of the focus areas of the State program for the development of the agro-industrial complex of the Republic of Kazakhstan for 2017-2021. Currently, the digital hub has enhanced its focus, has been rebranded and no longer specializes in supporting agricultural producers. However, the Project can learn from the model of such an extension center (on the basis of a university) and its experience in application of digital technologies for organizing agrometeorological observations and pest control.

Annex 20: A Draft Concept for the Cooperative platform with wheat exporters and retail companies for Northern Kazakhstan

One of the key elements for the GEF 7 FOLUR project in Norther Kazakhstan is the establishment of a national platform as an industry-forming mechanism to ensure that environmental sustainability of wheat production and wheat processing in Northern Kazakhstan are reflected all along the supply chain.

Green Wheat Initiative Platform or Sustainable Rain-fed Field Production Platform is a working title that will be clarified in the course of the project. The platform will engage the government and business in upscaling the production of wheat (and related crops) and creation of a sustainable market for agricultural products which will drive positive shifts in the entire agro-industrial complex of the country.

The cooperative platform of crop producers and consumers will focus on the production, marketing and sale patterns related to green wheat and other crops that are key to the sustainability of the wheat sector and crop production in general such as durum wheat, barley, maize, linen, rapes, sunflower, safflower, soya beans, mustard, chickpea, potato, carrot, cabbage, buckwheat, lentils and beans, beetroots, oats, millet, peas, mung beans (Asian beans) and sorghum. The platform will also focus on the processed agricultural produce and waste products from these crops. This will ultimately increase the production capacity and profitability per hectare, reduce greenhouse gas emissions and also contribute to the sustainable use of land resources.

The key objective for the platform is to link farmers to premium crop and forage markets and to retail/ wholesale companies, and to establish partnerships with food exporters and leading food chain companies. The platform will present, and regularly update, the analysis of demand, supply chains, marketing, and sales. The platform will explore options for labelling/ branding of green wheat in Northern Kazakhstan, and promoting marketing and sales through partnerships with food exporters and leading food chain companies.

The platform will become a powerful trigger for the formation of a national idea in the crop sector, including the concept of “responsible wheat producer”. “Responsible wheat producer” is the producer who plays a fair game, gets a stable harvest of high-quality wheat from year to year, uses environmentally friendly and land degradation neutral practices, multiplies natural resources, actively participates in public-private partnership programs, develops the regional infrastructure, establishes fair prices by market methods, and knows how to accumulate and share knowledge.

The overarching idea of the platform is to involve all industry structures, including state and quasi-governmental bodies, as well as participants from related industries.

The platform will study, implement and promote two main principles: communication and competition, in a very broad sense of these two terms.

The project expects to carry out the following activities within its central Output 2.6 aimed to support the sustainable green wheat platform development. Activities 1-8 constitute priority activities for setting up and supporting the green wheat platform followed by supplementary activities (9-15) if time and resources allow:

Priority actitivities:

1. Establishment of a clear definition of problems and barriers at all levels (weaknesses in production and communication, prohibitive permitting procedures, etc.) through the implementation of the following measures:
   a) Holding meetings, round tables, surveys, interviews, focus groups with representatives of the Ministry of Agriculture and its structural divisions, Committee for Land Resources, NASEC and its structural divisions, agricultural divisions of regional and district akimats, land, water and natural resources users, wheat producers (both large and small), farmers' associations (e.g. Union of Field-crop Growers), public associations, Atameken Chamber of Entrepreneurs, large food chains and traders, National Consumer League, Association of Impeccable Businesses, etc.

   b) Making accurate estimates of the profit/loss to the crop sector with the involvement of local and foreign analysts and a SWOT analysis of the industry.

   c) Identififying positive factors that create an enabling environment for all market actors: production and penetration of green wheat into the market (tax breaks, repatriation of investors’ profits, price advantage, mitigation of speculation factors, etc.).

2. Formation of a new parity approach on the issue of “green”, sustainable production and processing of wheat in Northern Kazakhstan by means of stakeholder consultations with partners from the private sector, government departments, and other participants. Namely:
   a) Holding a kick-off conference on the Platform creation, identifying current problems of the wheat sector, presenting the results of extensive consultations with various stakeholder groups (Clause 3), SWOT analysis, and potential options for further sustainable development of the sector.

   b) Developing and coordinating criteria for sustainable wheat production leading to the industry standard "responsible wheat producer".

   c) Defining the guidelines and practices of the Platform that its members will follow.

3. Creation of a task force on green wheat within the Platform, which will develop a Framework Document for the Platform for Sustainable Production of Green Wheat on the basis of agreed to criteria, guidelines and practices. The goal of the framework document is to enable all actors in the agricultural production, processing and consumption chain to make sure that the raw materials or finished products that they buy meet consumer expectations. In the future, the agreed to and approved framework document may replace numerous scattered inspections and certifications for farmers and large agricultural holdings in the sector. The task force on green wheat is expected to include experts from agricultural science, law, civilists, process engineers, traders, prominent farmers - opinion leaders, representatives of all active public associations, the Ministry of Agriculture and the quasi-public sector.

4. Demonstration of sustainable practices tested within the Outputs 2.2, 2.3, 2.4, which shows the application of the principles of the Platform and Framework Document in practice. Visits to demo sites by current and potential members of the Platform. Documenting results, sharing experiences.

5. Development and implementation of the “Interests and Knowledge Hubs” smart environment for the national Green Wheat Platform:
   a) development and implementation of a range of online tools which describe the following: marketplace, e-loan, e-agronomist, HR-relation, online seeds store for market participants and stakeholders, with help from leading Kazakh and foreign IT experts;
   b) creation of the wheat sector knowledge database with help from leading agricultural institutions, and deployment of this database via the most cited Internet platforms in Kazakhstan;
   c) creation of a contact center (with a wider range of functions than a call center, i.e. with the possibility for consultation) for the collection and analysis of data, as well as for coordination and consultation with Platform participants;

6. Development and implementation (along with state bodies) of a national methodology to solve operational issues together, such as developing a spring field and harvesting strategy with the most successful and sustainable (green) wheat production and processing practices, storage, logistics and trade strategies, joint emergency response strategies for force majeure situations (e.g. pest invasion, epiphytotics).

7. Promotion of the project and farm activities in regions where agriculture has a large share of the regional gross product, including the following:
   a) Organization of university-based GreenWheatSchool and GreenWheatKindergarten with the cooperation of educational authorities of these regions (including opening of small experimental intracity plots sown with wheat and other crops);

8. Development of the Platform transfer mechanism for its further uninterrupted sustainable operation after the project. Searching for a non-governmental, non-profit organization or public association whose goals and tasks are aligned with the general idea of the Platform. Skills enhancement for responsible persons and training about the principles of "green" wheat (possibly arranging this in the course of project implementation).

   Supplementary activities:

9. Establishment of a roster of experts for formulation of a strategic business plan related to Sustainable Production of Green Wheat.

10. Performance of a review of selected commercial and trade facilitation programmes and regulations, and provision of training to businesses to define their own green crops production businesses and to launch start up projects.

11. Collaboration with KAZNEX and the National chamber of entrepreneurship of Kazakhstan in the development of this Platform to improve access to relevant data for business start-ups, especially young business people and women.

12. Creation of a benchmarking system (similar to Agribenchmark) for Platform participants, which is a set of tools for food industry enterprises, large and small retailers who wish to asses, improve and confirm the sustainability of on-farm activities in their supply chains. These tools provide for effective and efficient collaboration in the supply chain all the way down to the farmer's level. Benchmarking tools can consist of a self-assessment questionnaire containing blocks of questions about agricultural practices in specific thematic areas that cover the main aspects of sustainable development including the following: environmental, social and economic ones.

13. Development (with general public involvement) of the theoretical basis for and introduction of the terms "responsible wheat producer", "responsible agribusinessman", "green wheat" into use, as follows:
    a) Development of labeling and certification procedures for "responsible wheat producer", "agribusinessman", "green wheat";
    b) Promotion of the green wheat brand abroad and within Kazakhstan at exhibitions, through all available means - media, social networks, blogosphere.

14. Discussions of mechanisms and requirements for transparent corporate reporting on green (eco) sales:
    a) Organization of GreenWheatClub, within the platform of the Chamber of Entrepreneurs or another platform, with regular meetings of market participants to discuss the current situation in the industry and to further develop general and related ideas of the platform.
    b) The outcome of this Club's work should be a self-regulating organization (a system of internal obligations and external guarantees - similar to the global organization GAFTA) which would participate in the resolution of disputes between agricultural producers and importers and stimulation of law-making processes on a trade-off basis.

15. Strengthening support - information sessions on a cooperative platform for green crops outside the project.

In order to provide an international tie to the domestic Green Platform, the project team will become a member of the Green Commodities Platform administered by UNDP. This will allow for interaction with other countries in developing and implementing the Kazakhstan Green Platform. The specific activities in this project will include the following steps:

-engagement through the FOLUR (Food, land use and restoration) global platform and the UNDP Green Commodities Program with countries and platforms outside of the country as a means for scaling results and impacting the broader food system,

-outreach to the FOLUR Global Platform specilists regarding the design and functionality aspects of the domestic Green Platform to make sure that it provides an efficient tool for both sector-specific private sector players in Kazakhstan and the international private sector participation,

-becoming a member of the Green Commodities Community administered by UNDP, including support of active engagement in the Community of the project team, government counterparts as well as key project stakeholders so they can connect with the other FOLUR participating countries, to learn about and share relevant experiences (lessons),

-coordination with the global coordination unit housed in the FOLUR, global platform through UNDPs Green Commodities Program as well as FOLUR-specific collaboration mechanisms established by the global platform,

-connecting with similar country projects within FOLUR based on similar commodities and approaches in order to share resources for combined and collective knowledge management products, e.g. a collective guidance on sustainable crop management approaches,

-connecting with global level commodity and food supply chain initiatives and networks, primarily through the UNDP Green Commodities Programme and Good Growth Partnership, as well as through other means offered by the FOLUR global platform while facilitating the linking of the project to global buyers interested in sourcing from jurisdictions that are advancing towards having deforestation-free commodity production and also to learn the latest best practices and policies of the global markets, and

-support for team members and government counterparts to participate in and speak at global conferences of relevance and represent FOLUR at these events while ensuring that the national commodity platform will be supported by the project and that it is connected to the global commodity initiatives (RSPO, WCF, ICO, GRSB, etc.) and serves as a principal forum for involving global and national supply chain stakeholders in the country.

Annex 21: Demonstration projects for Output 3.5 for restoring productivity of degraded lake and wetland ecosystems in NKL

The project has selected 3 wetlands ecosystems with a total of 4,600.7 ha in Akmola, Kostanai and North Kazakhstan Oblasts where methods for restoring productivity of degraded wetland areas will be demonstrated including the removal of sludge and debris deposits and its use as a subsite for chemical fertilizers used in crop agriculture in the demonstration projects targeted by Outputs 2.2 and 2.3. The project already has confirmation regarding the demand for the sapropel organic fertilizer to be extracted in the demo projects for approx. 65,000 ha of crop and legume lands in the NKL. The demonstration projects will also ameliorate the integrity of the wetland ecosystems by improving their hydrological regime, the inflow of water, habitat conditions for migratory birds, etc. Restoration activities will cover wetland ecosystems of the Saumalkol Lake, Taza Tokan wetland area and the Aksuat lake system.

The information on demonstration projects is presented in this annex in a tabular format, and includes basic background information on the site (location, ownership, etc.), biodiversity and land degradation significance of the site, threats to the site, proposed demonstration activities, as well as qualitative and quantitative performance indicators and gender aspects. Maps are also included.

Northern Kazakhstan Oblast, Ayirtau District (1 site totaling 2,377 ha)

Demonstration Project 1: Restoration and cleaning of the Saumalkol lake system which includes meadows and hayfields over a total area of 2,377 ha.

Goals: Restoring the productivity of degraded wetland ecosystems of the Saumalkol Lake through removal of bottom sediments and silt and using them as biological fertilizers.

- Expected results:
- Development of evidence-based recommendations for the conservation of biological diversity and natural aquatic ecosystems in the context of their economic and recreational use
- Conservation of biological diversity, restoration of unique aquatic ecosystems and ensuring forest reproduction
- Development of the tourism industry, environmental education and awareness raising among the population in the Ayirtau district of the North Kazakhstan region
- Increasing crop yields by using the required amount of biological fertilizers (sapropel)

Location (administrative district)	Saumalkol village, Ayirtau district, North Kazakhstan region
Area of wetlands (in hectares)	The area of the Saumalkol lake system is 2,377 ha.
Owner/ Land User	Akimat of Ayirtau district. Akim of Ayirtau district Ismanov Beybut Kayirkeshovich. Tel +7 (71533) 22646.
Nearest existing or planned protected area (PA)	Specially Protected Area - Kokshetau State National Nature Park, established in 1996, is located 1.0 km away from the project territory.
Natural and climatic zone	Forest steppe
Description of the pilot site	The drainless salt lake Saumalkol is located near the similarly-named Saumalkol district center of the Ayirtau district of the North Kazakhstan region. The surface area of the lake is 1177 ha, its average depth is about 5 m. Until 1956, this lake was a pristine freshwater body with a rich species biodiversity. As a result of the anthropogenic impact from the local population, the lake steadily degraded, silted up and turned into a dead water body, no longer used for economic activities and recreation. Silt bottom deposits are used by local citizens for medicinal purposes to cure diseases of the skeletal system.
Agricultural activities near the wetlands	Meadows and hayfields cover an area of 1200 ha of the total area of 2377 ha. On the north-eastern side of the lake there are pasture lands for livestock of Saumalkol and Pyatiletka villages. Currently, the following agricultural producers located close to the project area have a demand for sapropel (organic fertilizer): • Bayantai LLP, total of 16,925 ha of farmlands, of which 12,503 ha are arable land; • Saumalkol Agro LLP: total of 33,224 ha of farmlands, of which 25,780 ha are arable land, 6,586 ha are pastures, 18,000 ha are grain and leguminous crops; • Lobanovo LLP: total of 17,210 ha, of which 11,037 ha are arable land, 6,076 ha are pastures, 4,727 ha are grain and leguminous crops;

	• AgroCom-Madeniet LLP: total of 12,522 ha, of which 10,381 ha are arable land, 11 ha are pastures, 2,130 ha are grain and leguminous crops; and • Dostyk Dan LLP: total of 28,351 ha, of which 23,503 ha are arable land, 4,438 ha are pastures, 12,984 ha are grain and leguminous crops.
Importance of biodiversity	Currently, the lake does not have any ornithological value as a place for resting, feeding nor nesting of migratory birds.
Description of key environmental issues and threats	- Severe environmental damage to the Saumalkol Lake was inflicted during the days of virgin and fallow lands development. According to old-timers, 1956 saw an unprecedented wheat harvest. But abundant autumn rainfall did not allow the harvesting and drying of the crops in due time, so the wheat rotted and ignited. There was a fire at the silo. To hide the extent of grain spoilage, the local management of the time decided to dump the burning grain into the Saumalkol Lake which caused the irreparable damage - fish poisoning. The springs at the bottom of that lake clogged, blocking the flow of fresh water into the lake. The lake was steadily losing its economic and recreational functions as well as its former biodiversity. - The lake system's ecological state has also deteriorated due to the intensive development of the agro-industrial complex with the massive use of pesticides and mineral fertilizers on nearby fields. There are also highways and railway lines near the lake. - The massive field plowing, construction of engineering structures with attendant disruption of natural flows of meltwater and rainwater into the lake through small rivers accelerated and exacerbated further lake degradation and led to the water-salt imbalance. Water mineralization steadily increased, siltation processes accelerated, and the ichthyofauna disappeared over time, turning the lake into a lifeless pond. - Currently, due to the construction of a main highway near the Saumalkol Lake, the natural drainage of meltwater and rainwater into the lake from nearby territories was disrupted. Therefore, many forest areas near the highway are prone to flooding and excessive moisture. - As a result of the accumulation and melting of a large volume of snow, a rise of groundwater, abundant spring/summer precipitation, a swamp of about 5 hectares was formed 5 km from the Saumalkol Lake, which causes excessive moisture and the death of the local forest. The swamp is growing every year, flooding all new forest areas. Measures to drain the swamp and divert water to the Saumalkol Lake can stop further losses of the forest and significantly improve the ecological situation in this area. - At the present stage, the Lake is not suitable for any economic activity nor recreation.
Proposed demonstration activities (a consistent set of actions to fulfill the tasks and goals of the pilot project), including a detailed description of the proposed technologies / approaches.	1. The use of regular systemic agricultural and meteorological observations of the agrometeo posts already operational in the Saumalkol village to monitor the results and progress of this demonstration project. 2. Creation of a water protection zone around the Saumalkol Lake, at least 500 m from the water's edge and a water protection belt, as established by law. Introducing a ban on the discharge of sewage, and household and livestock waste from nearby villages (Saumalkol and Pyatiletka) and farms into the Saumalkol Lake. Cleaning a ravine near Saumalkol of household wastes as this ravine is currently used by the private sector to dump household wastes.

	3. Imposing a ban on the use of chemicals, pesticides and mineral fertilizers throughout the catchment area of the Saumalkol Lake, especially by Ayirtau and Orlovka settlements. 4. Imposing a ban on the washing of vehicles, and road, construction and agricultural equipment (sand pit and other facilities) in the sanitary protection zone of the Saumalkol Lake. 5. Conducting hydrological field studies to evaluate water resources available for a sustainable water supply of the lake system. Studying the causes of the lake degradation, developing appropriate recommendations and measures for its restoration. 6. Selections of a demonstration site on the Saumalkol Lake, where the following restoration/reclamation activities will be implemented: - conducting research to study the beneficial properties of sapropel and the possibility to use it on arable land/hayfields; - cleaning/reclaming of the bottom of the Lake of silt, extraction of bottom sediments (sapropel) in order to obtain fertilizers; and - transportation and use of sapropel as fertilizers on nearby agricultural lands, including arable land, hayfields and meadows to obtain higher yields of crops and livestock feed. 7. There are plans to use sapropel for crop cultivation (grain, leguminous and oilseed crops, etc.) on the fields of Saumalkol Agro LLP (25,780 ha of arable land), Lobanovo LLP (11,037 ha of arable land), LLP AgroCom-Madeniet (10,381 ha of arable land), and Dostyk Dan LLP (23,503 ha of arable land) 8. There are 40,600 head of cattle, 46,000 head of small cattle and 16,700 head of horses in the Ayirtau district. For organized cattle grazing in the region, there are 292,000 ha of pasture land. In the crop areas, perennial and annual herbs used for livestock feed occupy 41.200 ha. To obtain a high-quality grass stand, it is necessary to apply fertilizers (sapropel). 9. Organizing a demonstration event with the aim of studying and preparing recommendations for the drainage of meltwater and rainwater into the Saumalkol Lake from the flooded and wet forests along the existing highway. In the framework of Output 3.2. of Component 3 of the Project an analysis will be conducted and a list of recommended measures for the restoration of flooded areas will be prepared, some of which will be implemented as part of this demonstration pilot.
Expected expenditures (GEF grant funds and co-financing from partners) for each event and the final pilot budget	1. GEF will contribute USD $150,000 for implementation of the following activities: a. Conducting hydrological field studies to evaluate water resources for sustainable water supply of the lake system. Studying the causes of the lake degradation, developing appropriate recommendations and measures for its restoration– USD $35,000. b. Activities at the demonstration site of the Saumalkol Lake, including research on beneficial properties of sapropel and its use; cleaning/ reclamation of the Lake, use of sapropel as fertilizer on fields and hayfields – USD $100,000. c. Study and prepare recommendations for the drainage of meltwater and rainwater into the Saumalkol Lake from the flooded and wet forests along the existing highway - USD $15,000.

	2. Financing from the budget of the Northern Kazakhstan Oblast: within the framework of the "State program for the development of the tourism industry of the Republic of Kazakhstan for 2019-2025", financial resources will be provided for 2024-2025 for cleaning and sanitation of the Saumalkol Lake in the amount of KZT 1 billion, or USD $2,600,000. 3. Akimat of the Ayirtau district of the North-Kazakhstan region: creation of a water protection zone and a water protection belt, as established by law, around the Saumalkol Lake – USD $30,000. 4. Land users, agricultural producers, LLP: technical support of activities at the demonstration site of the Saumalkol Lake, for cleaning bottom sediments and obtaining fertilizers (sapropel), their delivery to the fields (fuel and lubricants expenses, land lease, agricultural machinery and direct excavation costs) - USD $100,000. The total budget of this demo project is USD $2,880,000.
Qualitative and quantitative performance indicators of the pilot project Indicators showing ecosystem health/ improvement.	- Creation of a water protection zone and belt around the Saumalkol Lake will limit its further pollution, clogging, depletion and will reduce anthropogenic impact by 20%. - Full implementation of measures to clean and improve the Lake will give a large impetus to the tourism industry development in the region with a 10 times increase of the tourist flow - to about 400 thousand visitors per year. - Recreational areas that are planned near the Lake can provide not only leisure services, but also offer wellness treatments - mud therapy and salt baths for visitors (including the use of healing properties of sapropel). - Favorable conditions will be created for commercial fish rearing and fishing. - Production of organic mineral fertilizers - sapropel, as a natural biostimulator of plant growth - will increase crop yields by 27-50%. - Use of sapropel stimulates the production of high-quality seed products and animal feed.
Pilot project monitoring (indicate how and by whom the declared indicators and project results will be monitored)	The project will use the annual field data to monitor the progress and achievement of quantitative and qualitative indicators set for the demonstration project. In the course of the pilot project's cleaning and rehabilitation activities at the Saumalkol Lake, the akimat of the Ayirtau dictrict will conduct monitoring: a committee will be created to monitor and facilitate the activities. The annual monitoring will be conducted as part of Component 4 on knowledge management and project monitoring. As part of the Component 3 on natural habitat conservation and restoration, the project will sign contracts with leading national research institutes and specialized government agencies (Institute of Zoology, Institute of Balneology, Institute of Ichthyology, specialized universities of the country, national parks, protected areas, NGOs, tourist organizations, RSE "Kazhydromet", RSE "Kazvodkhoz" of the Committee for Water Resources of the MEGNR of the Republic of Kazakhstan) to conduct field evaluations and analysis of biodiversity and water resources, and to develop a water use plan for a given territory in order to ensure a sufficient amount of water inflow into the lake system.

Training	Training sessions and field trips will use the results of field evaluation and analysis. Leading thematic institutions, such as institutes of zoology, animal husbandry, agriculture and water resources will be involved in training workshops. Training events will be organized for employees of akimats of the district and the region, territorial authorities within their competence, local executive authorities, employees of the Kokshetau GNNP (SPA), and water and land users. Training materials will also be handed out to representatives of tourist areas, universities and research institutes. The training activities will be implemented as part of Component 4 on knowledge management and project monitoring.
Involvement of women, youth, vulnerable groups	The project will ensure women's participation at every stage of this demonstration project implementation. Within the framework of gender monitoring, the Project will monitor gender aspects in demonstration projects. The project is expected to actively involve women from local communities in environmental awareness-raising activities for various target groups. In addition, when contracting with specialized agencies for field research and evaluation, the project will encourage the inclusion of a higher percentage of women in research teams. There is a possibility to involve young people from the unemployed category and, together with the employment center, to work on offering jobs to vulnerable groups of the population, in order to get additional assistance and labor resources when necessary.

Akmola Oblast, Birzhan Sal district (1 site totaling 223.7 ha)

Demonstration Project 2: Reclamation and rehabilitation of Taza Tokan wetland area of 223.7 ha and restoration of its productivity

Goal: Restoration of the degraded wetland ecosystems' (ponds) productivity and improvement of their hydrological regime, and cleaning of bottom sediments and silt which will be used as organic mineral fertilizers.

Expected results:

- Development of recommendations based on hydrological and hydrobiological assessment of Ponds 1–4
- Reconstruction of the ponds' hydraulic structures and restoration of a favorable hydrological regime with optimal water levels and an expansion of the water surface area
- Improvement of habitat conditions for migratory birds while preserving wetland ecosystems
- Cleaning ponds of bottom sediments and silt (sapropel) and using it as an organic fertilizer
- Improving the fertility of soils of adjacent agricultural lands through the application of sapropel

<table>
<tr><td>Location (administrative district)</td><td>Makinka village, Birzhan Sal district, Akmola region</td></tr>
<tr><td>Area of wetlands (in hectares)</td><td>The area of 4 ponds is 223.7 hectares. These ponds are located on the Tattimbet River which is located in the Yesil Basin.
<table>
<tr><th>Ponds</th><th></th><th>Area, ha</th></tr>
<tr><td>No 1</td><td></td><td>146</td></tr>
<tr><td>No 2</td><td></td><td>19.8</td></tr>
<tr><td>No 3</td><td></td><td>16.9</td></tr>
<tr><td>No 4</td><td></td><td>41.0</td></tr>
<tr><td>Total</td><td></td><td>223.7</td></tr>
</table></td></tr>
<tr><td>Owner/Land User</td><td>Makinka 2015 LLP, Director is Sergey Vasilyevich Shchvetsov, tel. 8-777-212-82-07.
Pond No. 4 is assigned to Makinka LLP by the Decree of the Akim of the region A-2/44 as of 10.02. 2017
Ponds No. 1,2,3 are assigned to IP Family, Director is Shvetsov Ivan Vasilyevich (finalization stage)

The following legal entities and physical persons will take part in the project: representative office of the Republican Public Association of Fisheries "Kazakhrybhoz" in the Akmola region, "Non-governmental Ecological Fund named after V.I. Vernadsky", the local community (teams of IPs, farms, LLPs, investors and public associations).</td></tr>
<tr><td>Nearest existing or planned protected area (PA)</td><td>Ponds 1,2,3,4 are located withn the territory of the Burabay State National Park and have borders with the Borovoye Nature Reserve.</td></tr>
<tr><td>Natural and climatic zone</td><td>Forest steppe</td></tr>
</table>

Description of the pilot site	Ponds 1, 2, 3, 4 are located in the Makinka village, Birzhan Sal district, Akmola region. They are a source of regular irrigation water for crops, fish rearing and production and a habitat for migratory birds. Because of their location, the ponds play a climate-shaping role in the area. Sources of pond water supply are: precipitation, active springs and springtime flood waters. Ponds do not dry out during the year. There is a forest-park natural zone near ponds formed by varieties of spruce, pine, linden, birch, fir and aspen. In the immediate vicinity of the ponds there are plantations of sea buckthorn and apple orchards. The main highway of national importance passes next to the ponds Nur-Sultan - Burabai Resort and is part of the tourist route where health resort facilities are located. The Ponds used to be a rich source of fish in the past. In the Ponds, covering an area of 223.7 ha, there are large reserves of sapropel deposits (organic fertilizers, mineral salts and other components) in the silt layer. Currently, the following agricultural producers located close to the project area have a demand for sapropel: • Makinka 2015 LLP (arable land of 1140 ha) – 45,500 tons of sapropel, • Capital LLP (1500 ha) - 60,000 tons, and • Danilovskoye LLP (12,000 ha) - 480,000 tons.
Agricultural activities near the wetlands	Vegetable crops (potatoes, cucumbers, tomatoes, greens, cabbage), cereals (wheat, barley, oats), oilseed crops (flax, rape), and fodder crops (corn, Sudan grass, herbs) are cultivated within a 50-kilometer radius. Livestock includes large and small cattle, horses, geese, ducks and chickens.
Importance of biodiversity	The Ponds are habitats and nesting areas for migratory birds. This includes species that are listed in the Red Book of Kazakhstan and extinct or possibly extinct such as Dalmatian Pelican (Pelecanus crispus), Black Stork (Ciconia nigra), Red-breasted Goose (Branta ruv icollis), Whooper Swan (Cygnus sygnus), white-headed duck (Oxyura leucocephala), Osprey (Pandion haliaetus), Booted Eagle *(Aquila pennatus),* Imperial Eagle (Aquila heliacal), Saker Falcon (Falco cherrug), and Peregrine Falcon (Falco peregrines). There are also globally important species such as Dalmatian Pelican (*Pelecanus crispus),* Sociable Lapwing (*Chettusia gregaria),* White-Headed Duck (*Oxyura leucocephala*), Greater Spotted Eagle (*Aquila clanga),* Imperial Eagle *(Aquila heliacal),* Short-Toed Lark (*Calandrella cinerea),* and Black Vulture (*Aegypius monachus).* And, there are reeds, sedge and watercane growing in shallow areas of the Ponds.

Description of key environmental issues and threats	- Because of technical deterioration and destruction of hydraulic cross regulators at Ponds 1-4, which are designed to maintain a stable hydrological regime, sharp fluctuations of water levels in the Ponds take place every year. This unstable water level regime poses a threat of the Ponds overflowing during the flooding period and a severe shallowing during the off-season period. - During low water levels, large areas of former breeding grounds, fry feeding areas and nesting areas of migratory birds remain exposed. Overheating of shallow water in the summer leads to water blooming and causes a massive death of fish, which negatively affects the entire food chain of the aquatic ecosystem. The gudgeon fish has disappeared from many of the Ponds. - An unstable hydrological situation leads to a number of negative consequences such as depletion of food supply in the Ponds, loss of bird nesting sites, of natural breeding grounds, of near-water vegetation and distress of forest stands. - Infestation of the Ponds' coastline with reeds and other vegetation, and litter (bottles, cans, bags) lead to deteriorating hydrological conditions for the Ponds and diminishing environmental safety of the Burabay National Park.

Proposed demonstration activities (a consistent set of actions to fulfill the tasks and goals of the pilot project), including a detailed description of the proposed technologies / approaches.	1. Within the framework of Output 1.4. of Component 1 the installation and launching of an agrometeorological station in the area of "Makinka-2015 LLP" for constant systematic observations. The results of agrometeorological observations will be used for agricultural work forecasting and planning. 2. Hydrological and hydrobiological assessment of the territories adjacent to Ponds 1-4 with further replication of results at nearby natural ecosystems of the Borovoye resort zone in order to better understand and analyze the threats and state of biodiversity of the entire wetland ecosystem in detail. 3. Studying the causes of lake (the Ponds) degradation, including preparation of appropriate recommendations on their reclamation. 4. Assessing water needs of various groups of water users (such as the local population, farmers, commercial fishers, etc.) in order to determine the amount of water and water levels necessary for the long-term sustainability of water ecosystems. 5. Recommendations on methods for restoration and ensuring the availability of desired amounts and levels of water will be made, including restoration and maintenance of optimal water levels in the lake system. 6. Restoration or new construction of hydraulic regulators (gates, lifts, etc.) on all hydrologic systems of Ponds 1-4. 7. Development of the most suitable and realistic water use plan for subsequent discussion and coordination with water users and decision makers. 8. Identifying the properties of organic and mineral bottom sediments, including sapropel, which is an environmentally friendly and productive fertilizer. Determining its volumes in relation to the area of the Ponds, and the biochemical composition (micro and macro elements) of sapropel. 9. Arranging extraction of sapropel and silt sediments, as well as cleaning the coastline of reeds to improve the hydrological conditions for Pond filling. 10. There are plans to use sapropel for crop cultivation (vegetables, wheat, oilseeds, etc.) on the fields of Makinka 2015 LLP (arable land of 1140 ha) – 45,500 tons of sapropel, Capital LLP (1500 hectares) - 60,000 tons, and Danilovskoye LLP (12,000 hectares) – 480,000 tons.
Expected expenditures (GEF grant funds and co-financing from partners) for each event and the final pilot budget	The total budget of the pilot project: USD $440.600. To implement the above demonstration activities, the GEF contribution is expected to amount of USD $205,000, including: - conducting hydrological and hydrobiological assessment of Ponds 1–4: USD $30.000; - determining the properties of organic and mineral bottom sediments and silt (sapropel) as fertilizers;

	- organizing works to clean ponds of bottom sediments and silt: USD $40.000; - purchase of the MTZ-1221 excavator: USD $40.000; and - purchase of a dredger: USD $95.000. The total contribution of agricultural producers will amount to USD $235,600, including: - Makinka 2015 LLP - preparation of the design and planning documentation for the reconstruction and restoration of hydraulic regulators, including construction: USD $85,000; - Danilovskoye LLP - cleaning ponds of bottom sediments and silt (sapropel), using it as organic fertilizer, and delivery of sapropel to the fields: USD $30,000; - Danilovskoye LLP - purchase of a tank (1 piece) for distribution of sapropel to the fields: USD $105,600; - Capital LLP - cleaning the coastline of reeds to improve the hydrological conditions for Pond filling: USD $15,000.
Qualitative and quantitative performance indicators of the pilot project Indicators showing ecosystem health/ improvement.	- The quality of agricultural work forecasts and planning will improve when using the results of agrometeorological observations. - Recommendations, developed on the basis of hydrological and hydrobiological assessment of Ponds 1-4, will provide an opportunity to increase the output of the Ponds (irrigation, fish farming) by 20%. - Reconstruction of hydraulic structures on ponds and restoration of a favorable water regime with optimal water levels and expansion of water surface areas will increase the efficiency of water irrigation from ponds by 20%. - Cleaning ponds of their bottom sediments and silt over an area of 227.3 ha. - The area of a coastline cleaned of vegetation will be 50 ha. - Improving the quality of cultivated crops when using sapropel for soil fertilization. - As a result of the sapropel application in the fields, the gross yield of wheat will increase from 13 to 27 Cwt/ ha, vegetable crops from 18 to 40 Cwt/ha, oilseed crops from 7 to 15 Cwt/ ha and forage crops from 16 to 28 Cwt/ ha. - Improving the habitat conditions for migratory birds while preserving wetland ecosystems. - Supply of high-quality, environmentally friendly fish products to the entire region, including Nur-Sultan - Revitalization of the aquatic ecosystem to the level of a fishery basin.
Pilot project monitoring (indicate how and by whom the declared indicators and project results will be monitored)	The project will use the annual field data to monitor the progress and achievement of quantitative and qualitative indicators set for the demonstration project. The directors and agronomists of Makinka-2015 LLP, Danilovskoye LLP, Capital LLP, District Department of Agriculture, and District Phytosanitary Department will take part in this work. Numerical graphs will be used for data monitoring, which will clearly mark the areas where a certain amount of sapropel was applied, specify a vegetation index, ripening index, gross yield and its storage quality in winter. All water indicators will also be handled by the directors of Makinka-2015 LLP,

	Danilovskoye LLP, Capital LLP, IP Family, RSE Kazvodkhoz of the Committee for Water Resources of the MEGNR of RK. Annual monitoring will be conducted as part of Component 4 on knowledge management and project monitoring. As part of Component 3 regarding the natural habitat conservation and restoration, the Project will sign contracts with leading national research institutes and specialized government agencies (Institute of Zoology, Institute of Balneology, Institute of Ichthyology, specialized universities of the country, national parks, protected areas, NGOs, tourist organizations, RSE "Kazhydromet", and RSE "Kazvodkhoz" of the Committee for Water Resources of the MEGNR of the Republic of Kazakhstan).
Training	Training sessions and field trips will use the results of the field evaluation and analysis. Leading thematic institutions, such as institutes of zoology, animal husbandry, agriculture and water resources will be involved in training workshops. Training activities will be focused on decision-makers, and water and land users of Makinka-2015 LLP, Danilovskoye LLP, Capital LLP, IP Family, Division of Natural Resources and Nature Use of Akmola Region, S. Valikhanov University, Katurkul Polytechnic College, and 11th grade students of the Makinka secondary school. The training activities will be implemented as part of Component 4 on knowledge management and project monitoring.
Involvement of women, youth, vulnerable groups	The project will ensure women's participation at every stage of this demonstration project implementation. Within the framework of gender monitoring, the Project will monitor gender aspects in demonstration projects. The project is expected to actively involve women from local communities in environmental awareness-raising activities for various target groups. In addition, when contracting with specialized agencies for field research and evaluation, the project will encourage the inclusion of a higher percentage of women in research teams, as well as youth, and vulnerable segments of the population in order to motivate their interest and involvement in these types of work that have not previously used this category of employees.

Kostanay Oblast (1 site totaling 2,000 ha)

Demonstration Project 3: Improving the ecosystem integrity of wetlands on the area of 2,000 ha of the Aksuat Lake system of the Naurzum State Nature Reserve (SNR).

Goal: Ensuring sufficient quantity and quality of water to restore the productivity of degraded wetland ecosystems of the Naurzum State Nature Reserve.

Expected results:

- Improving the wetlands ecological condition on the pilot area of the reserve by increasing the water inflow thereto as a result of appropriate hydraulic works and measures to increase the water supply from the rivers that feed the lakes
- Development of evidence-based recommendations for the conservation of biological diversity, and natural aquatic ecosystems of the reserve
- Conservation of rare and threatened bird species listed in the Red Book of Kazakhstan and the IUCN list, such as: white-headed duck (*Oxyura leucocephala)*, Dalmatian pelican (Pelecanus crispus) and European white pelican *(P. onocrotalus)*, whooper swan (*Cygnus cygnus)*, white-tailed eagle (*Haliaeetus albicilla* gris), and common crane (*Grus grus)*
- Increasing soil moisture in the floodplain of the Naurzum-Karasu River to improve pasture lands and hayfields

Location (administrative district)	Naurzum district of the Kostanay region
Area of wetlands (in hectares)	The area of the pilot wetland is 2,000 ha and it includes Shoshkaly, Karazhar and Small Aksuat Lakes, included in the Aksuat system of lakes, as well as the Naurzum-Karasu river as a source of water supply for these Lakes.
Owner/ Land User	RSE "Naurzum State Nature Reserve" of the Committee for Forestry and Wildlife of the Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan. Director Koilibaev Dulat Gauezhanovich tel/fax: +7 (71454) 21-1-41.
Nearest existing or planned protected area (PA)	The pilot site is a part of the Naurzum Nature Reserve. The Altyn Dala Reserve (Zhangeldy and Amangeldy districts of the Kostanay region) is located a distance of about 200 km from the pilot site.
Natural and climatic zone	Steppe
Description of the pilot site	The Naurzum State Nature Reserve was founded in 1931 by Decree No. 826 of the Council of People's Commissars of the RSFSR and was established on September 9, 1934 by a meeting of the Presidium of the Kazakh Central Executive Committee and the Council of People's Commissars of the Kazakh ASSR. In accordance with the current legislation, the Naurzum State Nature Reserve falls into the highest category of specially protected natural areas of national and international importance; it was created to preserve the typical, rare and unique natural complexes, and flora and fauna of the steppe zone of Northern Kazakhstan in situ. Trans-Ural-Turgai Region’s ecosystems, present in Naurzum, are distinctive and unique in terms of their floristic and faunistic composition and have no analogues in other parts of the Eurasian

	steppe zone. Within its current borders, the reserve consists of an interconnected and interdependent series of ecosystems from the western part of the Turgai Plateau and its slopes through the central part of the Turgai meridional hollow to its eastern side, including the bottom of the hollow, plain and lake basins and modern river valleys of the Kazakh dry-steppe plains. The Region's ecosystems have a great value as relict formations – 'witnesses' of geological events of past eras. The region's variety of natural complexes means a high species richness, in both plants and animals. 687 species of higher plants, 45 species of mammals, 316 species of birds, 3 species of reptiles and amphibians, 11 species of fish and about 1000 species of invertebrate animals are recorded in the Reserve. In 2007, the Naurzum Reserve's lakes system was included, by the Bonn Convention secretariat, into the international Network for the Conservation of Siberian Crane - one of the rarest species -– and into the list of important bird areas (IBA). On July 7, 2008 in Quebec (Canada), the Naurzum Reserve was included into the UNESCO World Cultural and Natural Heritage List. In 2009, the Naurzum Reserve was included into the Ramsar List of Wetlands of International Importance. The Naurzum pilot site includes the Aksuat lake system (Shoshkaly, Karazhar, Small Aksuat Lakes), their surrounding inundated glasslands and halophytic communities, Naurzum forest, Naurzum-Karasu steppe river that feeds these lakes, various types of steppes (forb-feather grass, shrubs-forb-red feather grass, fescue-feather grass, complex steppes), and eastern side slopes of the hollow with kolki birch and aspen forests and plateau sections.
Agricultural activities near the wetlands	In the Naurzum District, pasture areas on agricultural lands amount to 302,186 ha. With extensive pastureland availability, the local population has developed a livestock farming practice based on free grazing. As a result of uncontrolled grazing, degradation of hayfields and grazing land is observed, posing a bigger threat to the reserve. Remote pastures are not used due to a lack of water sources. Agricultural activity, including crop production, takes place in the Burevestnensky Rural District, located in the catchment area about 40 km south-west of the reserve. Wheat, safflower and chickpeas are grown on the fields of the District. In the eco-corridor zone, in between the reserve sections, a limited economic activities are present ,such as hay-making and cattle grazing. The territory of the ecological corridor is a natural water catchment area of the Dana-Bike River, which also supplies water to the Sarymoyin lakes system, which is one of the main lake areas in the reserve. There are cattle-breeding farms of local residents along the Dana-Bike River, for whom the availability of water in the River is a

	key factor. Also, there are plantations of potatoes and watermelons along the River, which also use the water from the River for irrigation.
Importance of biodiversity	The Aksuat system of lakes is one of the most important places for birds and animals living in this region and they stay there during seasonal migrations. This lake system, along with other key wetlands, is listed as a UNESCO World Heritage Site. From ancient times, Naurzum Lakes served as a staging area for many species of birds wintering in Iran, India, Central Asia, and along the Turgai migratory route further north to nesting sites. In the years when Naurzum Lakes are filled, they become breeding grounds for waterfowls and wetland birds. Many species of Red Book birds nest here – Dalmatian and European white pelican, whooper swan, spoonbill, white-headed duck, great black-headed gull, common crane, and saigas are observed in summer. In 2014, a Siberian crane was observed on these lakes. The optimal water level in the Aksuat system of lakes guarantees the presence of fish there, and the composition and population of many species of piscivores has increased thanks to that. Filling of the pilot Lakes Shoshkaly, Karazhar and Small Aksuat with water will result in a gradual filling of neighboring lakes and parts of the wetlands that are hydraulically connected. Existence of the above Lakes depends on the flow of the Naurzum-Karasu River and upstream reservoirs of the Burevestnensky Rural District which regulate the flow of this River. Also, water availability in the reserve lakes affects the groundwater level under the unique relict Naurzum forest. In the years when lakes are filled, forest yield and trees frutification increase noticeably. Natural protection of trees from pests improves as well as frutification of many species of the flora in the reserve, which many local species of birds and animals depend on. With an increase in groundwater levels, the filling of natural watering places for animals in the forest is observed. When reserve lakes are filled with water and there is fish, the Red Book species of piscivore birds come there, and if the food supply is good, they create nesting populations and hatch chicks.
Description of key environmental issues and threats	In the days of virgin land development, the natural hydrological regime of the lakes in the Naurzum Reserve was disrupted. For this reason, the timing of filling and drying of the steppe lakes has changed; the volume of incoming water from rivers and natural watersheds has also changed. These changes in the water regime of lakes negatively affected the migration routes of many species of migratory birds, and also negatively affected the nesting and habitat of endemic species of birds and animals. The state of Naurzum lakes is completely dependent on the flow of spring meltwater which is formed far beyond the Reserve borders and

	its conservation zone. The main rivers feeding them are the Naurzum-Karasu (85 km) and Dana-Bike (58 km) Rivers which have an extremely uneven flow throughout the year. The Ulken-Karaelga River and numerous channels (draws) that run through the eastern side of the Turgai Trough also play a significant role in filling the lakes. Therefore, the reserve's lakes have a cyclical unstable hydrological regime. One of the pilot project intervention areas may lie in this domain. The economic activity in these river basins significantly reduces the water flow into the reserve lakes. Constraining factors include various linear structures (roads, railways) and plowing of land. There is a partial withdrawal of the runoff by dams and pits originally designed for water supply, livestock watering, and fish farming, many of which were built in the days of virgin land development. Currently, many of them are abandoned and do not fulfill their functions. Some of these reservoirs are not recorded in the list of reservoirs of the region. Despite a relatively small volume of surface water being taken for household needs (mainly for livestock watering), and significant amount of water in ponds is lost due to evaporation and infiltration. In extremely dry years, when most of the Reserve's reservoirs dry up, the lack of water for firefighting equipment becomes an urgent concern for the Reserve. In case of fires, the equipment has to go to water intakes located 25-40 km away, making firefighting much less effective. As firefighting time is lost, the area of the fire increases. At the point of a planned water tank installation, in soviet times there was a tank with a capacity of 10,000 liters, which has become unusable and no longer operational due to metal corrosion. Also, when transporting water from distant water intakes, it is difficult for the special firefighting equipment to move through the reserve, as the forest grows on sandy soils and heavy-laden machinery moves very slowly through these areas, which also makes it slower to deliver water to a fire scene. The hydrological and meteorological equipment is technically outdated. Installed in 1965, 3 water gauging posts were malfunctioning by the beginning of the 90's due to their being damaged by ice drifts. In 1992-1993 they were adjusted for a second time by the Reserve staff, but piles made from improvised materials cannot withstand even small movements of ice, which is why they need annual correction. Currently, all water gauging posts have been destroyed and the water levels in the Reserve have not been measured since 2016. Moreover, the Reserve's research activity includes observation of natural phenomena and weather conditions. To do this, data from the Kazhydromet weather station, whose analog equipment is technically outdated, is currently being collected. And the Kazhydromet station is located outside the reserve territory - 20 kilometers away from its border near the regional center of Naurzum District.
Proposed demonstration activities (a consistent set of actions to fulfill the	1. Field survey of the riverbeds feeding the main lakes of the pilot site - Naurzum-Karasu, Dana-Bike and Ulken-Karaelga

tasks and goals of the pilot project), including a detailed description of the proposed technologies / approaches.	and numerous channels (draws) along the eastern side of the Turgai Trough, in order to identify factors that impede stable replenishment of lakes and maintain their optimal state. 2. A survey of the technical condition of reservoirs and pits, which deter the runoff in the upper rivers, culverts of highways; as well as an assessment of the linear structures' influence on the lake supply with meltwater and rainwater. 3. A survey of the current hydrological regime of the Naurzum-Karasu and Dana-Bike Rivers which feed the Reserve's lakes and represent a source of water for agricultural enterprises involved in cattle breeding and fodder harvesting (haymaking), and melon farming in the catchment areas. 4. Organizing a demonstration event on the passage of meltwater and rainwater through a culvert under a highway to increase the water flow to the Lakes of the pilot area. 5. Organizing a demonstration event on the accumulation of meltwater to increase soil moisture, and to improve the filtration capacity of soils. 6. Planting trees in the project area: 7. in the areas subject to water and wind erosion (channels, ravines); 8. to strengthen sections of the banks of the Nauruzum-Karasu and Dana-Bike Rivers; and 9. to restore degraded areas or as a natural barrier to agricultural runoff near agricultural lands. 10. Development of key recommendations and technical solutions for further water supply and conservation of the pilot part of the Aksuat lake ecosystem. 11. Drilling a well on the Bas Naurzum plot near the state inspector's station in the Naurzum relict forest to access an artificial reservoir with the volume of 20,000 liters of water needed to extinguish fires during the fire hazard season, which begins in early May and ends in late October in this area. 12. Installation and launching of an automated lake meteorological station in the territory of the reserve for the observation, forecasting and system monitoring of lake systems. This activity will be implemented as part of Output 1.4. of Component 1 of the Project.
Expected expenditures (GEF grant funds and co-financing from partners) for each event and the final pilot budget	The total budget of the pilot project: USD $255,000, including: The GEF contribution will amount to USD $150,000, including: 1.Conducting a field survey of the main riverbeds feeding the lakes of the pilot site and a current hydrological state of the Naurzum-Karasu River – USD $30,000; Surveying the technical condition of hydraulic structures that affect the water flow to the wetlands of the pilot area – USD $20,000; Organizing a demonstration event on the passage of meltwater and rainwater through a culvert under the highway – USD $40,000; Purchasing trees for the project area – USD $10,000; Fire safety measures: USD $50,000, including:

	- well drilling, - purchase of a submersible pump, - purchase of 2 tanks of 10 tons each, - purchase of a solar power plant to generate electricity, and - installation of a water tank for fire-fighting purposes. 2. Contribution by the Nauruzum Reserve will amount to USD $95,000, including**:** The costs of the ongoing wildlife monitoring and phenological observations by the staff of the relevant Department, and implementing safety measures on the project area, and maintenance of the fire station, which includes: fuel and lubricants costs, 10 tons – USD $5,000 staff wages: 2 researchers, 1 laboratory assistant and 10 state inspectors with total wage costs of USD $30,000; These costs are included in the annual budget request. 2.Purchase of the planting material, soil preparation and tree planting on the project area – USD $10,000. Provision of equipment, consumables and labor for the pilot project implementation in the amount of more than USD $ 50,000 (lease of agricultural equipment and direct operational costs, provision of UAZ cars, rental of a wheelhouse for workers involved in project execution, provision of workers). 3.Contribution of farms and agricultural firms – USD $10,000 - partial coverage of expenses for fuel and lubricants, lease of land, agricultural machinery and direct costs of planned operations. 4.Contribution of the Akimat of the Nauruzum District: Development of a technical design and setting out of water protection zones and belts. Currently, these works are being coordinated with the Akimat of the Kostanay region. Provision of equipment and labor for the meltwater and rainwater passage through a culvert under the highway
Qualitative and quantitative performance indicators of the pilot project Indicators showing ecosystem health/ improvement.	Field surveys of riverbeds feeding the lakes of the pilot site, technical conditions of reservoirs, pits, and road culverts, where studying the current hydrological regime of the Naurzum-Karasu river will provide evidence-based materials and information for further informed decisions to ensure a sufficient quantity and quality of water for restoration of the wetlands productivity in the Naurzum State Nature Reserve. Organizing a demonstration event showing that the passage of meltwater and rainwater through a culvert under a highway will increase the volume of the water flow to the wetlands of the pilot site by 10%. Organizing a demonstration event showing that the accumulation of meltwater will increase the moisture content of soils and improve their filtration capacity by 20%. Planting trees on the project area will strengthen the soil and banks of watercourses, prevent further formation of ravines and pits, increase the water supply to the area and reduce the irretrievable loss of water resources by 10%.

	Creating an additional guaranteed water source to ensure fire safety at the Naurzum Reserve, especially in extremely dry years, and to show that it will reduce the fire damage risks by 40%. Installation and launching of an automated lake meteorological station in the reserve to show that it will improve forecasting accuracy, improve the quality of monitoring, and facilitate the observations performance by 40%.
Pilot project monitoring (indicate how and by whom the declared indicators and project results will be monitored)	The project will use the annual field data to monitor the progress and achievement of quantitative and qualitative indicators set for the demonstration project. Naurzum Reserve personnel and research institutes will conduct annual biodiversity monitoring, including threat monitoring, and tracking of qualitative and quantitative indicators of biodiversity and habitats. The annual monitoring will be conducted as part of Component 4 on knowledge management and project monitoring.
Training	The project will conduct training sessions and field trips that will use the results of field evaluation and analysis. Leading thematic institutions, such as institutes of zoology, animal husbandry, agriculture and water resources will be involved in training workshops. Training events will be organized for the akimat staff, and water and land users. The training activities will be implemented as part of Component 4 on knowledge management and project monitoring.
Involvement of women, youth, vulnerable groups	The project will ensure participation of women at every stage of the demonstration project. The project will monitor gender aspects at the demonstration sites. The project is expected to actively involve women from local communities in environmental awareness-raising activities for various target groups. In addition, when contracting with specialized agencies for field research and evaluation, the project will encourage the inclusion of a higher percentage of women in research teams.

Hydrology. A large number of lakes are located in this area. The largest ones are Aksuat (up to 220 sq. km in years of inundation) and Sarymoyin (126 sq. km) located in the Turgai hollow (Fig. 10). There are also numerous lakes in the Sypsynagash hollow (ancient runoff valley), mainly saline ones. Most of the lakes are flat crateriform basins with depths rarely exceeding 2.5-3 m. All of them are inland drainless lakes of sor-affected deflation origin and their nutrition depends mainly on precipitation. Therefore, the lakes' water level experiences large fluctuations before they completely dry out. A new intensive flood can interrupt the drying process and restore the system. Repeat cycles of lakes filling take from 7 to 15 years. According to the degree of mineralization, the lake water can be divided into plantless "sors", slightly salted - with a narrow reed border, and fresh - with abundant aquatic vegetation.

The river network consists of drying steppe rivers - *Karasu*. In the western part of the plateau, valleys of the Dana-Bike, Naurzum-Karasu and Ulken-karazhilga Rivers run into the Turgai Hollow. During the spring flood, these riverbeds are filled with water, which, when reaching lakes, overflows into the estuary and forms shallow limans. In summer, water covers small sections of channels only as separate pools and reaches. The intra-annual distribution of the river runoff is extremely uneven: more than 90% of it stays in large and medium-size rivers and almost the entire annual runoff of small streams is formed during the spring snowmelt; however, the nature and duration of floods varies. The tributaries of the main rivers do not have a permanent watercourse and they dry up in some areas in the summer.

Annex 22: A Draft Concept for a National Experience Exchange Platform

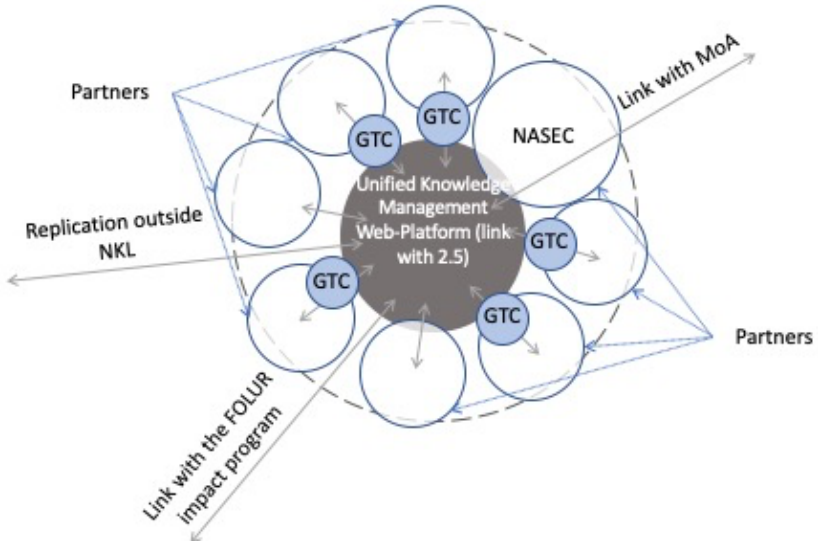
1. Role and scope

The National Experience Exchange Platform in the field of sustainable food production will be one of the outcomes of the UNDP-GEF "Promotion of sustainable food systems and improved ecosystems services in Northern Kazakhstan Landscape" project in cooperation with the Ministry of Agriculture of the Republic of Kazakhstan in close collaboration with the Ministry of Ecology, Geology and Mineral Resources of the Republic of Kazakhstan and other partners and with the financial support from the Global Environment Facility.

The goal of this platform is to institutionalize the extension of environmentally and climatically sustainable food production, as well as to create conditions for the continuity of experience within the system and integration with the global platform of the FOLUR Impact Program.

This platform involves stakeholders in knowledge generation and experience exchange in the field of sustainable agricultural production. In particular, the platform:

- creates conditions for involving land user and agricultural producer associations in planning the knowledge management activities;
- promotes pooling of resources for implementation of extension activities;
- supports generation and systematization of knowledge;
- ensures that environmental, climate and gender aspects are taken into account when extension activities are implemented;
- supports introduction of digital technologies and innovative approaches into the extension system;
- contributes to development of the information and education web platform initiated and created within the framework of the Project, and ensures its development after the end of the Project;
- contributes to replication of the Project experience beyond the boundaries of the North Kazakhstan Landscape; and
- creates conditions for the exchange of experience with the Global IP Platform and other regional initiatives of the FOLUR Impact Program.



2. Institutional mechanisms

The National Experience Exchange Platform is a network of parties practicing sustainable agriculture and extension in the field of agricultural production. It is created as part of the knowledge management IT infrastructure developed by the Project in conjunction with the National Agrarian Scientific and Educational Center. Its participants share and develop a unified information and education platform on sustainable food production, share common principles and use common standards in the field of knowledge dissemination and exchange of experience.

3. Involvement of the Ministry of Agriculture and other stakeholders

The National Experience Exchange Platform works closely with the Competence Center, which implements the republican budget program 267-100 "Providing information and consulting services at no cost to agribusiness entities" (program administrator is the Ministry of Agriculture of the Republic of Kazakhstan). In particular, it creates the conditions for the exchange of experience between the Center of Competencies and other extension centers, which allows for building the capacity of participants in the extension system and improve approaches to information and educational support for farmers. The national network supports the desire of associations to provide extension services on a commercial basis and creates mechanisms for leveraging scientific capacities in this activity. The Competence Center is one of the users of the knowledge management IT infrastructure in the field of sustainable food production.

4. Sustainability potential

The national network supports its participants in commercializing their services and creates conditions for building their capacity, which contributes to the sustainability of extension activities in industry associations. The unified IT infrastructure created in the framework of the Project together with the National Agrarian Scientific and Educational Center offers the necessary tools for the exchange of experience between network participants and the sustainability of knowledge dissemination. Participation of the National Agrarian Scientific and Educational Center lays the grounds for the network institutionalization within the agro-industrial complex of Kazakhstan.

5. Platform development road-map

The Platform will be developed throught the following indicative activities to be implemented within the project Output 4.1:

- Involvement of stakeholders in the design and development of a single web-based knowledge management platform (link to Output 2.5);
- Collaboration with the Competence Center, which implements the republican budget program "Providing information and consulting services at no cost to the agribusiness entities". The Project will coordinate its work with this Center within the North Kazakhstan Landscape and facilitate replication of this experience outside the Northern Kazakhstan Landscape, as part of the Competence Center activities. The project will ensure the involvement of the Competence Center in developing a single information and educational portal and the National Experience Exchange Network;
- Cooperation with the German-Kazakh Agricultural Policy dialogue, including arranging the participation of a group of Kazakh farmers (about 15 people) in the international trade fair for organic products BioFach (Nuremberg, Germany).
- Finalizing the concept of the National Experience Exchange Network and its enforcement by signing memoranda of cooperation;
- Conducting a Central Asian experience-sharing conference; and
- Involvement of stakeholders in monitoring and evaluation of the Project activities.

Annex 23: Targeted capacity building for the forestry management units

The project will target total ten (10) forestry management units, of which one (1) forestry management unit is located in Akmola Oblast, seven (7) forestry management units - in Kostanay Oblast and two (2) forestry management units - in North Kazakhstan Oblast; and the two PAs - the Ayirtau Branch of the Kokshetau SNNP and the Naurzum State Nature Reserve.

214. Specific **hardware** assistance activities will include:

- Development of a standard design project for a forest fire station and construction of ten (10) forest fire stations (FFS) in:
  - Akmola Oblast: Bukpa state forestry management unit (1 second class FFS);
  - Kostanay Oblast: Basamanskoye state forestry management unit (2 first class FFS), Mikhailovskoye state forestry management unit (2 first class FFS, 1 second class FFS), Taranovskoye state forestry management unit (1 second class FFS), and Usakovskoye state forestry management unit (1 first class FFS);
  - North Kazakhstan Oblast: Kyzylzharskoe state forestry management unit (1 second class FFS), Burlukskoe state forestry unit (1 second class FFS); and
  - the Ayirtau Branch of the Kokshetau SNNP (1 second class FFS).

  The upgraded system of FFSs will support quick suppression of forest fires by trained FFS teams of the targeted forestry management units and the PA, which in turn will improve forest protective properties as well as conservation of the forest fund and maintain biodiversity.
- Development of a standard design project for a fire tower and construction of five (5) fire towers (FT) in Kostanay Oblast: Arakaragayskoye state forestry management unit (1 FT), Basamanskoye state forestry management (1 FT), Mikhailovskoye state forestry management unit (1 FT), Semiozernoye state forestry management unit (1 FT), and Uritskoye state forestry management unit (1 FT). A network of fire towers will enable early detection of foci of fires in the forest fund areas which will allow extinguishment of a fire at the ignition stage, thereby reducing the area covered by forest fires which in turn will ensure the conservation of the forest fund areas and maintenance of biodiversity and improvement of the protective properties of forests.
- Development of a standard design project of a standard service station and its construction in the Ayirtau Branch of the Kokshetau SNNP. The service station is a standalone residential and industrial complex for housing the forestry staff and making sure that they can fulfill the forest protection and conservation tasks. The service station will improve the housing and social conditions of PA inspectors, create conditions for attracting specialists, which will have a positive effect on fulfillment of their functional duties to protect the natural complexes. The service station will include a two-apartment residential building of 212 m^2, two outbuildings of 30 m^2 each, one garage for 4 cars with an area of 152 m^2 and stables for 4 horses of 100 m^2.
- Purchase of fire prevention and control machinery and equipment (a drone, an all-terrain vehicle, and a floatable snow and swamp-going caterpillar vehicle) and construction of three (3) water intake stations in the Naurzum State Nature Reserve located in nothern Kazakhstan[16].

Specific **software** assistance activities will include:

- Review and update of existing fire prevention and control protocols to be embedded in the routine operation of forest units and emergency authorities of Akmola, Kostanai and North Kazakshtan Oblasts;
- Update of forest management plans of forestry units and sections of PA management plans on forest fire prevention and control stipulating the updated fire prevention and control protocols;

[16] The Naurzum State Nature Reserve is part of the UNESCO heritage site Saryarka – Steppe and Lakes of Nothern Kazakhstan. It protects about 3,077 square kilometres (1,188 sq mi) of steppes, semi-desert and forests. In 2007, the Naurzum Reserve's lake system was included, by the Bonn Convention secretariat, into the International Network for the Conservation of Siberian Crane - one of the rarest species -– and into the list of important bird areas (IBA).

- Capacity building of target forestry units and PAs on effective fire prevention and control measures;
- Education and public awareness raising on fire prevention at targeted sites (e.g. public awareness signs at key sites, radio advertisements, brochures disseminated at key locations such as local government offices, tourism facilities, schools, and at public meetings)
- Community engagement in fire prevention considering gender-specific awareness about fire prevention measures, participation of community members in fire management measures, rules of conduct in case of fires, etc.

Annex 24: Targeted capacity building for agrometeorological services

Updated agromet hardware and equipment for integrated land use planning and decision-making:

Republican State Enterprise (RSE) "Kazhydromet", the Government agency that provides the agricultural sector with agrometeorological monitoring services and data, makes agro-meteorological observations at 71 sites (33 meteorological stations with agricultural observations and 38 agro-meteorological posts) in three main wheat-growing regions of Kazakhstan (Akmola, Kostanay and North Kazakhstan oblasts). Observations are partially automated at 12 posts and 5 meteorological stations only. According to the recommendations of the World Meteorological Organization (WMO), an adequate meteorological network on flat territory are separated by distances between meteorological stations of about 60 km for most observed meteorological characteristics and 20-30 km for precipitation. The density of the meteorological network in the northern grain-producing areas is 5200-8200 km^2 per measuring point, which is not enough according to the WMO recommendations. The optimal number of meteorological network points would be 30 in North Kazakhstan oblast, 45 in Akmola oblast and 61 in Kostanay oblast, as shown in Table 1.

Table 1: Current number and density of meteorological stations in northern Kazakhstan

Oblast	**Area ('000 km^2)**	**Number of observation points[17]**	**Density ('000km^2/point)**	**Optimal number of observation points**
North Kazakhstan	98	14	7.0	30
Akmola	146	28	5.2	45
Kostanay	196	24	8.2	61

To partially solve this problem, agrometeorological surveys are conducted along ground routes. Also, in addition to the Kazhydromet stations, large farms operating in northern Kazakhstan operate their own stations and equipment, to fill the Kazhydromet's gaps in coverage, but these are not linked the Kazhydromet agrometeorological monitoring system. In any case, the current density of monitoring points remains insufficient and large agricultural areas in NKL remain uncovered by agrometeorological monitoring.The project will work with Kazhydromet and its regional offices in Akmola, Kostanay, and North Kazakhstan regarding expansion of the agrometnetwork in the key wheat producing regions of NKL stemming from the Kazhydromet recent assessment of the agromet network, its coverage, technology status and gaps. In consultations with Kazhydromet and project stakeholders on the ground, 15 sites have been identified for installation of agromet and hydro posts. In addition to criteria devised by Kazhydroment for site selection such as closeness to residential area, road infrastructure to access the posts for O&M, and good quality of cellular reception for data transmission, the project included a few sites to serve the needs of the forestry sector, PAs and wetlands, responding to the needs of regional stakeholders.

Kazhydromet will fund baseline investments in agromet equipment (upgrade of 47 existing agro met stations, additional equipment for 26 meteorological stations, replacement of 34 old meteorological) along with 7-9 radar units, and related O&M and staff costs. The GEF resources will fund the purchase of 15 agromet stations in the three target regions of Kostanay, North Kazakhstan, Akmola, as detailed in Table X below. The identified agromet stations in the Table will be installed in demonstration sites under Outputs 2.2, 2.3, 2.4 and 3.5, providing agricultural users, forestries and selected PAs with accurate weather and agromet forecasts. Also, agromet data and forecasts will be actively used by the project and regional stakeholders in the process of integrated land use planning in selected rural okrugs as described in Output 1.1, above.

Table 2: Proposed agromet stations in target areas

№	**Name of village**	**District**	**Cultivated crops, pastures or hayfields**	**Total crop or pasture area to be serviced by Kazhydromet, ha**
North Kazakhstan Oblast				
1	Spasovka village	Yessil	wheat, barley, oats, lentils, flax, rapeseed, annual and perennial herbs, potatoes	21,373

[17] Meteorological stations, meteorological posts and automated agro-posts.

2	Molodezhnoye village	Magzhan Zhumabayev	wheat, barley, oats, cereal mix	17,023
3	Andreyevka village	Gabit Musrepov	wheat, barley, flax, oats	14,605
4	Novomikhailovka village	Mamlut	wheat, barley, oats, buckwheat, peas, cereal mix, lentils, flax, rapeseed, annual herbs, potatoes and vegetables	40,904
5	Saumalkol village	Airtau	wheat, barley, oats, lentils, flax, rapeseed, annual and perennial herbs, potatoes meadows and hayfields	72,685 1,200
Kostanay Oblast				
6	Burevestnik village	Zhangeldy	wheat, barley, oats, lentils, safflower chickpeas	121,455
7	Naurzum PA, hydropost at lake ecosystem Aksuat	Naurzum	pastures	302,186
8	Vladimirskoe village	Kostanay	pastures	17,177
9	Yershovka village	Uzunkol	wheat, barley, peas, flax	33,550
10	Uspenovka village	Fedorovsky	barley, oats, lentils, flax, soybean, sunflower	52,288
11	Karynsaldy village	Amangeldy	Spring crops: wheat, barley. Perennial herbs: wheat grass. Annual herbs: Sudan grass	70,865
Akmola Oblast				
12	Tatrbay village	Korgalzhyn	wheat, barley, oats	6,500
13	Kostichevo village	Zharkain	wheat, barley, oats	13,443
14	Krasivoye village	Yessil	wheat, barley, oats	12,000
15	Makinka village	Birzhan Sal	wheat, barley, oats, flax, rape, fodder crops (corn, Sudan grass, herbs), potatoes, cucumbers, tomatoes, greens, cabbage	14,640

Improved agromet coverage and enhanced capacities of the Kazhydromet staff for accurate forecasts and effective dissemination will also contribute to the ongoing restructuring process of the insurance system for crop production--moving away from subsidizing insurance premium payments for farmers to an insurance index linked to agromet data as an instrument for insurance companies to rate numerically the risks associated with a credit given on a specific farm for a specific crop or animal production. This issue will be raised and results of the project's work under this Output will be discussed at the Inter-ministerial Task Force meetings (Output 1.3, above).

Capacity building of Kazhydromet staff to improve the quality of hydrometeorological services provided to agricultural and other land users:

The evaluation report of the UNDP/USAID project "Improving the Climate Resiliency of Kazakhstan Wheat and Central Asian Food Security" (or CWR project) notes that in addition to further investment in modern and more accurate equipment by Kazhydromet, there exists the need for more effective dissemination of agromet data to farmers, especially SME farms.

As part of the RK government “Smart technologies” initiative, in 2018 Kazhydromet signed a pilot project with the akimat of the North Kazakhstan Oblast for provision of targeted agromet services to farms and agricultural enterprises of the North Kazakhstan region. A total of twenty-five (25) services contracts were concluded in 2018-2019 enabling the contracted farmers to receive Kazhydromet tailored forecasts and agrometeorological information free of charge during the first year. Twelve (12) additional private farms signed up for agromet services in the course of the pilot project but on a compensation basis. In addition to localized weather and agrometeorological forecasts and analysis, Kazhydromet specialists developed electronic field maps using coordinates of 37 enterprises/farms engaged in the pilot project to perform an NDVI field analysis by crop types, grain varieties and crop dates. The types of analysis were used to identify areas in farm fields that were infested and damaged by pests and/or weeds or impacted by adverse climate conditions. The pilot project was well received by the recipients resulting in higher yields and lower costs for the farmers.

Kazhydromet will expand this experience by including farmers from Kostanay and Akmola Oblasts in the framework of this project. In particular, Kazhydromet will sign agreements with two Oblast authorities for rendering direct agromet support to farmers and conclude 25-30 contracts with farmers (especially SMEs) in the target oblast for the provision of such services, enabling them to take both short-term (e.g. planting time) and long-term (e.g. switch to other crops and farming techniques) decisions. The latter will include online and mobile systems as well as integrating agromet data and forecasts in seminars and extension work (Output 2.5). The project, jointly with Kazhydromet, will initiate performance reviews to identify weaknesses and needs for staff capacity building related to data analysis, forecasting models, data packaging and dissemination of forecasts to farms, and tailor staff training accordingly. The project will design and organize training and programs for raising the identified key competences and skills of the staff of Kazhydromet—at both central and regional offices. The project will offer off-line and online training opportunities for the Kazhydromet staff to maximize effectiveness and efficiency of staff training. With project support, Kazhydromet will also train 15 field technicians from the areas where additional agromet posts will be installed. The training will cover O&M of agromet stations, and reading and transmitting data to Kazhydromet when needed.

Annex 25: Kokshetau Uplands econet description

The ecological network "Kokshetau Uplands" will consist of the three major elements: (i) core conservation areas represented by existing and prospective PAs covering 336,668 hectares, mainly the Kokshetau and Burabai State National Nature Parks (marked purple in Figure 1), Vostochniy and Bulandinskiy State Nature Zakazniks (marked green in Figure 1) and prospective Turkty Refuge (marked orange in Figure 1); (ii) buffer zones and sustainable use areas surrounding the core areas, and (iii) transit areas or corridors (stepping stone, linear or landscape) connecting remnants of valuable steppe and forest ecosystems. Details regarding PAs representing the core conservation areas are presented in Table 3 below.

Table 1. List of existing and prospective PAs of the ecological network "Kokshetau Uplands"

#	PA Name	Area, ha	Status	Location	Responsible party
1	Kokshetau National Nature Park	93,799[18]	Existing	Zerendy district of Akmola Oblast and Aiyrtauskiy district of North Kazakhstan Oblast	Committee for Forestry and Wildlife of the Ministry of Ecology, Geology and Natural Resources
2	Burabai State National Nature Park	129,299	Existing	Schuchinskiy district, Akmola Oblast	President Affairs Office
3	Vostochniy State Nature Zakaznik	100,000	Existing	Birzhansalskiy district of Akmola oblast	Committee for Forestry and Wildlife of the Ministry of Ecology, Geology and Natural Resources
4	Bulandinskiy State Nature Zakaznik	47,076	Existing	Birzhansalskiy and Schutsinsk districts of Akmola Oblast	Committee for Forestry and Wildlife of the Ministry of Ecology, Geology and Natural Resources
5	Turkty Refuge[19](IUCN cat. VI)	53,059	Prospective	Zerendy and Sandyktau districts of Akmola Oblast	Committee for Forestry and Wildlife of the Ministry of Ecology, Geology and Natural Resources

Kazakhstan's PA Law envisages establishment of ecological corridors. Key steps for identification and legal establishment of the corridor will include: (i) defining the conservation objectives of the corridor; (ii) identifying criteria that the corridor must satisfy; (iii) assessing various options for linking priority areas for conservation with key landscape-scale ecological processes against these criteria, i.e. deciding on the type of corridor to be established-- stepping stone, linear or landscape corridor or a combination thereof; (iv) defining the corridor; (v) drafting and adopting a scientific background for the corridor, as stipulated by Article 81 of the PA Law[20] to identify HCVFs and key biodiversity areas outside the PAs; and (vi) developing a financial sustainability assessment and strategy for landscape-level management efforts, including the potential for community-based eco-tourism, game breeding for hunting areas, etc.

During the corridor design stage, the project will assist the GoK in creating the Turkty PA of 53,059 ha contributing to the core area of the ecological network. In the MEGNR's strategic plan, the prospective PA was envisaged to have the IUCN VI category of "PA with sustainable use of natural resources", requiring government resolution for its establishment. But considering the current cumbersome process of getting approval of PAs to be funded from the Republican budget, it is possible for the PA change of status to fall under the authority of oblast level akimats[21]. The PA status will be revisited and confirmed following findings of scientific, technical and financial feasibility studies.

A consultative process will be followed throughout. This will include an inception workshop to discuss the overall vision of the project and to discuss planned activities within the area. This will be followed by more focused planning workshops with stakeholders and decision makers at the oblast and district levels, including with land use planning agencies. Targeted

[18] Total area of Kokshetau SNNP is 182,076 ha but the project will focus on the Aiyrtau cluster (Northern Kazakhstan Oblast) of 46,234 ha and two clusters in Akmola oblast: Zerendy (36,625 ha) and Ormandy Bulak (10,940 ha)

[19] According to the MEGNR's Strategic Plan for 2021-23, the scientific, technical and financial feasibility stury for the Turkty Refuge are scheduled for 2021-22 and the PA formal establishment for 2023. The PA protection regime and status may be reclassified to local zakaznik

[20] The Law does not require a technical feasibility study for corridors.

[21] The practice shows that it is easier to obtain funding for new PAs of regional importance than those of republican importance.

workshops and meetings will also be held with local level stakeholders and focus groups (individual farmers and association of farmers, agricultural enterprises, hunting area and forestry managers, councils for sustainable economic development of rural akimats, district akimats, NGOs, women's groups, etc.) for information sharing, asset and land use mapping, participative zoning, etc.

The corridor-containing areas of various protection regimes will be proposed by the Committee for Forestry and Wildlife of the Ministry of Ecology, Geology and Natural Resources (CWF MEGNR), subject to approval of the scientific justification, and it is expected to fall under the authority of either the Kokshetau SNNP or Burabai SNNPs, or both, or any other institution with a biodiversity conservation mandate (e.g. forestry or *leshoz*). The corridor will be approved by a regional authority(-ies) (Oblast akimat(s)) through the issuance of a Decree promulgating creation of the corridor[22]. The Decree will contain a section on habitats and species management.

The operationalization of the ecological corridor with a target area of ca.250,000 ha will begin with the development of its passport as stipulated by Kazakshtan's PA Law[23]. A designated institution (akimat, PA, or forestry management unit) to be put in charge of the corridor will issue an order containing an annual workplan, patrolling schedule for monitoring and protection of valuable ecosystems, habitats and species within the corridor. The PA Law allows for low-impact, biodiversity-friendly activities within the corridor. But during certain times (e.g. migration, nesting, blooming, etc.) the protection regime becomes strict disallowing human disturbances[24].

[22] Unlike with PAs of IUCN categories I and II, a Government Resolution is not required for a corridor.

[23] A PA 'passport' is an official document that has to be developed within 6 months of the PA's official establishment using the endorsed ENO & TEO as the basis. It contains the following information: name of PA, its type & category, administrative body that assumes management over PA, if it is not registered as a legal entity; geographical location, description and coordinates of its boundaries, total area in hectares, PA map with key infrastructure & facilities, indicator species, description of historical/cultural monuments, a list of land users residing in the buffer zone, a list of eligible and non-eligible economic activities & practices in certain parts of the PA.

[24] Kazakhstan has limited experience with creation and management of corridors. CFW has formally established four (4) wildlife corridors for protection of migratory species of saiga, argali, koulan, goitered gazelle; the largest in the steppe zone is the Irgiz-Turgai-Zhylanshyk corridor. This is still a learning-by-doing experience, and the project will ensure that international expertise is shared with national stakeholders and experts in this regard.

Annex 26: Project Co-financing Commitments

Sources of Co-financing	Type of Co-financing	Co-financing amount, US$	Planned Co-financing Activities/Outputs	Risks	Risk Mitigation Measures
JSC Agrarian Credit Corporation (ACC)	Grant	5,000,000	Output 2.1	Reduced financing from the republican budget	The project team will be in regular contact and close coordination with ACC in order to monitor the status of available financial resources for the subsidy program
Analytical Center of Economic Policy in the Agricultural Sector (ACEPAS)	Grant	14,000,000	Output 1.3; Outcome 2	Government budget sequestration	The project team will be in regular contact and close coordination with ACEPAS in order to monitor the status of planned expenditures and committed co-financing
JSC National Agrarian Science and Education Center (NASEC)	Grant	17,000,000	Output 1.3; Output 2.5; Outcome 4, PMC	Government budget sequestration	The project team will be in regular contact and close coordination with NASEC in order to monitor the status of committed co-financing and planned expenditures
Agricultural Experimentation Station "Zarechnoe"	Grant	2,700,000	Outputs 2.2-2.3; Output 2.5; Outcome 4	Local economy and sector conditions change	The project team will be in regular contact and close coordination with participating private sector partners to monitor local economy and sector conditions
Union of Crop Farmers (*Soyuz Polevodov*)	In-kind	2,000,000	Output 1.3; Output 2.6; Outcome 4	Local economy and sector conditions change	The project team will be in regular contact and close coordination with participating Union of Crop Farmers and its partners to monitor local economy and sector conditions
Qazaqstan Organic Producer Union	In-kind	3,000,000	Output 1.3; Output 2.6; Output 4.1	Local economy and sector conditions change	The project team will be in regular contact and close coordination with participating Qazaqstan Organic Producer Union and its partners to monitor local economy and sector conditions
Ministry of Agriculture	Grant	27,500,000	Outcome 1, Outputs 2.1, 2.5, 2.6, Outcome 4, PMC	Government budget sequestration	coordination with MoA in order to monitor the status of committed co-financing and planned expenditures
Forestry and Wildlife Committee (FWC) of the Ministry of Ecology, Geology and Natural Resources (MEGNR)	Grant	16,434,000	Outcome 3, Outputs 4.2-4.3	Government budget sequestration	The project team will be in regular contact and close coordination with FWC of MEGNR in order to monitor the status of committed co-financing and planned expenditures

National Chamber of Entrepreneurs/Agrocompetence Center	Grant	500,000	Output 2.5, Outcome 4	Change in Republican Budget Financing	The project team will be in regular contact and close coordination with the Agrocompetence Center in order to monitor the status of committed co-financing and planned expenditures
National Chamber of Entrepreneurs/Agrocompetence Center	In-kind	10,500,000	Output 2.5, Outcome 4	Change in Republican Budget Financing	The project team will be in regular contact and close coordination with the Agrocompetence Center in order to monitor the status of committed co-financing and planned expenditures
KazHydroMet	Grant	18,000,000	Output 1.4, Output 2.5	Government budget sequestration	The project team will be in regular contact and close coordination with KazHydroMet in order to monitor the status of committed co-financing and planned expenditures
Akimat of the Ayirtau district of the North Kazakhstan Oblast	In-kind	30,000	Output 3.5	Change in Republican Budget Financing	The project team will be in regular contact and close coordination with Akimat in order to monitor the status of committed co-financing and planned expenditures
EN DALA Limited Liability Partnership	Grant	582,600	Output 2.3	Local economy and sector conditions change	The project team will be in regular contact and close coordination with participating private sector partners to monitor local economy and sector conditions
Ayam-7 Limited Liability Partnership	Grant	78,000	Output 2.3	Local economy and sector conditions change	The project team will be in regular contact and close coordination with participating private sector partners to monitor local economy and sector conditions
Tselina Agro Limited Liability Partnership	Grant	24,572	Output 2.2	Local economy and sector conditions change	The project team will be in regular contact and close coordination with participating private sector partners to monitor local economy and sector conditions
Association of Ogranic Farming	Grant	337,500	Output 2.2	Local economy and sector conditions change	The project team will be in regular contact and close coordination with participating private sector partners to monitor local economy and sector conditions
Yershovskoe-2 LLP	Grant	131,775	Output 2.2	Local economy and sector conditions change	The project team will be in regular contact and close coordination with participating private sector partners to monitor local economy and sector conditions
Beibars Agro LLP	Grant	110,116	Output 2.2	Local economy and sector conditions change	The project team will be in regular contact and close coordination with participating private sector partners to monitor local economy and sector conditions
Bolshemalyshenskoye LLP	Grant	52,733	Output 2.3	Local economy and sector conditions change	The project team will be in regular contact and close coordination with participating private sector partners to monitor local economy and sector conditions

Kyzyl Agro LLP	Grant	60,000	Output 2.2	Local economy and sector conditions change	The project team will be in regular contact and close coordination with participating private sector partners to monitor local economy and sector conditions
Makinka 2015 LLP	Grant	235,600	Output 3.5	Local economy and sector conditions change	The project team will be in regular contact and close coordination with participating private sector partners to monitor local economy and sector conditions
Ayantay LLP, Tamyr & Askyr Peasant Farms	Grant	100,000	Output 3.5	Local economy and sector conditions change	The project team will be in regular contact and close coordination with participating private sector partners to monitor local economy and sector conditions
Keneshov Peasant Farm	Grant	10,000	Output 3.5	Local economy and sector conditions change	The project team will be in regular contact and close coordination with participating private sector partners to monitor local economy and sector conditions
Nauruzum State Nature Reserve(NSNR)	Grant	95,000	Output 3.5	Change in Republican Budget Financing	The project team will be in regular contact and close coordination with the management of NSNR in order to monitor the status of committed co-financing and planned expenditures
Burabay State National Nature Park (SNNP)	Grant	13,595,400	Output 3.1	Change in Republican Budget Financing	The project team will be in regular contact and close coordination with the management of Burabay SNNP in order to monitor the status of committed co-financing and planned expenditures
"Kolossovskiy" Individual Entrepreneur	Grant	229,870	Output 3.3	Local economy and sector conditions change	The project team will be in regular contact and close coordination with participating private sector partners to monitor local economy and sector conditions
	Total	**132,307,166**			

Annex 27: Co-financing letters

Presented as a separate document.

Virtual Validation Workshop Report

Zoom platform

Date: 15 June 2020

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I. BACKGROUND

The child project Concept Note (PIF equivalent) for a full-sized Project "Promotion of sustainable food systems and improved ecosystem services in Northern Kazakhstan Landscape was approved in June 2019 by the GEF Council. UNDP Kazakhstan received the project preparation grant of $150,000 from the GEF immediately after to develop a full-size project submission package by initially May 30, 2020 as the CEO Endorsement Submission Deadline but in view of the COVID-19 global restriction measures the deadline was extended to August 30, 2020.

II. PROJECT VALIDATION WORKSHOP

Since the project's moderate SESP risk has been confirmed during the PPG phase, the validation workshop and report has become mandatory for the Project. As such, the validation workshop for the UNDP-GEF Full Size Project "Promotion of sustainable food systems and improved ecosystem services in Northern Kazakhstan Landscape" was held virtually on June 15, 2020 via the Zoom Platform. Forty-seven (47) participants took part in the validation workshop representing key government organizations and its regional offices, research & financial institutions, academia, regional akimats, farmer associations & unions, individual farmers, independent experts (See the list of participants in Annex 28-1). The objective of the validation workshop was to present preliminary findings, draft project strategy, its key components and elements, and receive feedback from key national and regional stakeholders (see Annex 28-2 with the workshop's agenda).

Mr. Arman Kashkinbekov, Head of Sustainable Development Unit, UNDP Kazakhstan, and Mr. Maxim Vergeichik, UNDP Regional Technical Advisor for Biodiversity & Ecosystems, IRH welcomed workshop participants with preliminary remarks stating the overall relevance of the project to national and regional development priorities in the country, importance of stakeholder engagement in project design. Mr. Vergeichik informed the participants that the Project is a part of the Global FOLUR Programme and briefed participants on its peculiarities and main characteristics. He also pointed out that the Project team has finished the project document preparation stage and is ready to share the results of their work with all the interested parties and key partners.

The introductory & welcoming session was then followed by the project strategy presentation. The PPG team members presented the project's overall strategy & budget, target landscape in northern Kazakhstan and its four (4) components.

Ms. Natalya Panchenko, PPG Coordinator/Environmental Management Specialist, outlined key elements of ***Outcome 1*** of the Project that will demonstrate the overall approach, techniques and schemes for increasing the effectiveness of land use planning and management in the NKL region of Kazakhstan combined with trainings of key groups of land users and regional authorities on rules and principles outlined in developed ILUPs . The expected total landscape area to be brought under sustainable productive use through territorial planning is about 230,000 hectares, representing the total area of the three (3) pilot rural okrugs. Expansion and upgrade of the Kazhydromet agrometeonetwork in the key wheat producing oblasts of NKL to better inform integrated land use planning and management will supplement the project's work in the three pilot rural okrugs on development of ILUPs. Finally, the Project will continue to support the work of the Inter-ministerial Task Force chaired by the Ministry of Agriculture to oversee development and adoption of policies/regulations (new or amended) to enable

implementation of NKL and LDN principles. This includes addressing detrimental fiscal subsidies in agriculture and discrimination in favor of large-scale farmers.

Key elements of ***Outcome 2 on promotion of sustainable food production practices and responsible value chains*** were presented by Mr. Firuz Ibrohimov, Technical Advisor to LD and Agriculture Projects, UNDP Kazakhstan. This component seeks to develop a subsidy program primarily targeting SME farmers and women and blending GEF financing (0.7 mln US$) with funding from KazAgro (5 mln US$), in support of green wheat production (or other crop in case of need of diversification). Specific demonstration outputs in four regions of NKL have been dedicated to three broad categories of intervention (1) improved technologies for annual productive cropland, primarily wheat; 6 demonstration projects covering 186,600 ha, (2) improved perennial crop systems as a means of diversification; 3 demonstration projects covering 298,800 ha, and (3) livestock & pasture management; 10 demonstration projects covering 152,100 ha. Also, 15 regional extension services will be capacitated to deliver quality services to 20,400 farmers and 1,200 livestock breeders on sustainable farming & livestock management, green production. The project will also extend its support to the creation of a national platform as an industry-forming mechanism for wheat production and processing in NKL, green product marketing, working closely with food chain retail and wholesale companies to link farmers to premium crop and forage markets and to retail/ wholesale companies (Magnum, Tamasha, Small retail companies, and to establish partnerships with food exporters and leading food chain companies (e.g. Auchan).

Ms. Natalya Panchenko then briefly summarized key segments of ***Outcome 3 on conservation & restoration of natural habitat***. First, an eco-network of high natural-value ecosystems covering 624,200 ha will be established in the NKL covering Akmola and Northern Kazakhstan Oblasts with various protection regimes to improve the connectivity and connectedness of the landscape and will train PA, hunting management areas, forestry and fishery managers, along with land user groups (livestock breeders, fishermen, agriculturalists, women, etc.), eco-tourism operators, NGOs to comply with the conservation & monitoring requirements of the ecological network “Kokshetau Uplands”. Second essential element of Outcome 2 centers around restoration of degraded birch-aspen patchy (kolki) forests and reforestation of high conservation value forests covering 5,000 ha. Three (3) forest nurseries covering 36 ha will be created for growing seedlings of birch, pine and other tree and shrub species. These seedlings will be used for creation of forest plantations at logging sites, and burnt and dead plantations, as well as for restoration of protective forest belts on agricultural lands. Third subcomponent will focus on establishing an integrated fire prevention and control system for forestries & PAs in NKL. Finally, the project will demonstrate approaches to restoration of degraded lakes and wetlands of 4,600 ha in northern Kazakhstan including extraction of bottom sediments & debris for production of organic fertilizers.

Ms. Aliya Tonkobayeva, PPG Knowledge Management Expert, presented the project’s **Outcome 4 on knowledge management, M&E and coordination with Global FOLU IP**. The project knowledge management (KM) activities under Component 4 will support enhanced communication and coordination between state agencies and land users within the Northern Kazakhstan Landscape and beyond by means of a National Experience Exchange Platform, which will be created with the project’s support to share the experience in sustainable food production. Project activities of this Component will also be aimed at raising awareness among farmers, local communities, government bodies and the public at large about the benefits of green production. The project will focus on raising the awareness and capacities of women involved in agricultural production. Based on the results of demonstration projects, the Project will

generate, synthesize and disseminate knowledge which will also form the basis for educational programs for farmers in regional extension centers under Outcome 2. A set of knowledge products around the experiences of promoting sustainable wheat, landscape restoration and ecosystem conservation will contribute to the FOLUR community of practice. There will be exchanges with other FOLUR projects, particularly with similar situations and/or the same commodity. Finally, the Project will support the inclusion of sustainable agricultural production in vocational and academic education curricula (e.g. North Kazakhstan State University, departments of "Agronomy and Forestry" and "Food Security"; Higher Technical College in Shchuchinsk, Akmola oblast).

The workshop session on presenting the project's strategy and its components concluded and followed by the Q&A session moderated by Mr. Firuz Ibrohimov.

In the course of open discussions, Mr. Yerlan Zhumabaev, Portfolio Manager of Sustainable Land & Water Resources Management Projects, noted that though MoA has a number of subsidy programs aiming to increase farmers' production capacities, the government's subsidy support still lacks programs that directly promote environmentally sustainable, green farming, organic farming, etc. Recently, there has been a positive shift in MoA's understanding of "green" development as being purely the prerogative of the Ministry of Ecology, Geology and Natural Resources, and this transformational change now constitutes the very reason why MoA is fully on board with proposed project activities related to green financing, sustainable farming techniques & approaches, promotion of green value chains, etc. Also, MoA assigning NASEC and KazAgro as Responsible Parties for the project is also indicative of MoA's strong interest in joint implementation of proposed approaches and mechanisms in the project and its focus on long-term effects (economic, social, environmental) of environmentally sustainable methods in farming, crop production and livestock breeding versus short-term economic benefits of current government's support in agriculture.

Mr. Yerkanat Iskakov, Head of the Department of Agrometeorological Forecasting, RSE Kazhydromet, stressed the importance of the proposed project activities in the wheat growing regions of NKL especially related to green subsidies and testing of effective sustainable farming and livestock management approaches and techniques. He also noted of the project's planned support for the upgrade of the agrometeo network (hardware & software) in NKL to enhance the Kazhydromet's short, mid and long-term forecasting capacities, which will result in better crop production & farmlands management.

Overall, the workshop participants noted the project's relevance to national and regional development priorities and provided positive feedbacks to the presented project's strategy: its objectives and outcomes. Questions/comments, responses and key suggestions from participants are summarized in Annex 28-3.

III. **CONCLUSION**

Mr. Firuz Ibrohimov concluded with a final statement thanking all participants for active and constructive support & engagement during the PPG phase and participation in the workshop. He also stated that the PPG team and UNDP CO received no criticism from national/regional partners to the proposed project's outcomes and outputs.

Annex 28-1: Agenda of the Virtual Validation Workshop

Virtual Validation Workshop **presenting results of the PPG Phase of the UNDP-GEF full-size project "Promotion of sustainable food systems and improved ecosystem services in Northern Kazakhstan Landscape"**

15 June 2020

ZOOM platform

14.00-14.15	***Welcoming remarks:***
	Mr. Arman Kashkinbekov, Head of Sustainable Development Unit, UNDP Office in the Republic of Kazakhstan
	Mr. Maxim Vergeichik, UNDP Regional Technical Advisor, Biodiversity & Ecosystems, IRH
14.15- 15.15	**Presentation of the Project Strategy**
	Component 1: Integrated Landscape Management systems *Ms. Natalya Panchenko, PPG Coordinator*
	Component 2. Promotion of sustainable food production practices and responsible value chains *Mr. Firuz Ibrohimov, Technical Advisor on environmentally friendly methods of grain production and responsible chains of agricultural production and marketing*
	Outcome 3. Conservation and restoration of the natural habitat *Ms. Natalya Panchenko, PPG Coordinator*
	Component IV. Knowledge management, M&E and coordination with Global FOLU IP platform *Ms. Aliya Tonkobaeva, KM project expert*
15:15 – 15:55	**Q&A session: Comments & feedback from stakeholders on the presented project strategy.** *Moderator: Mr. Firuz Ibrohimov*
15:55 – 16:00	Wrap-up and closing

Annex 28-2: List of Participants

Virtual Validation Workshop

presenting results of the PPG Phase of the UNDP-GEF full-size project "Promotion of sustainable food systems and improved ecosystem services in Northern Kazakhstan Landscape"

15 June 2020

ZOOM platform

LIST OF PARTICIPANTS

#	Name	Position/Organization
1	Mr. Samat Kairbekov	Deputy Director of the Department of Strategic Planning and Analysis of the Ministry of Agriculture of the Republic of Kazakhstan
2	Ms. Saule Zhurynova	Head of the department of agri-food markets of the Ministry of Agriculture of the Republic of Kazakhstan
3	Mr. Rauan Yerulankyzy	Deputy Chairman of the Board of NJSC "National Agrarian Scientific and Educational Center" of the Ministry of Agriculture of the Republic of Kazakhstan
4	Mr. Rakhat Mukhtarov	Director of Investment Projects, KazAgro JSC
5	Mr. Jörg Dinkelaker	Member of the Board of Directors of KazAgro JSC
6	Mr. Yerlan K. Muratov	Deputy Chairman of the Committee on Forestry and Wildlife
7	Mr. Maksat T. Ayashev	Chairman of the Water Committee
8	Mr. Yerkanat Iskakov	Head of the Department of Agrometeorological Forecasting, RSE Kazhydromet
9	Mr. Saken Baysholanov	Head of the Department of Climatology, Institute of Geography and Environmental Management of the International Scientific Complex ASTANA
10	Mr. Almabek Nugmanov	Head of the Digital Hub " Parasat ", Kostanay State University
11	Ms. Tatyana Gontarenko	Extension Center " Shortandy "
12	Mr. Lashyntay Zh. Dyusenov	Akmola regional territorial inspection of forestry and wildlife

13	Mr. Daut B. Dzhumabaev	Kostanay regional territorial inspection of forestry and wildlife
14	Mr. Ruslan M. Tulepbayev	Pavlodar regional territorial inspection of forestry and wildlife,
15	Mr. Yerezhep Ye. Zhanatan	North-Kazakhstan regional territorial inspection of forestry and wildlife
16	Mr. Uali K. Dali	Director of the Akmola branch of RSE " Kazvodhoz "
17	Ms. Nonna Loyenko	Director of the Department of Agrometeorology of Monitoring and Forecasting RSE " Kazhydromet "
18	Mr. Dosbol B. Bekmagambetov	Yessil Basin Inspection for the Regulation of the Use and Protection of Water Resources
19	Mr. Abat K. Abilov	Director of the Kostanay branch of the RSE " Kazvodkhoz "
20	Mr. Nugayip N. Ibatullin	North-Kazakhstan branch of the RSE "Kazvodkhoz"
21	Mr. Kanat Batyrhanuly	Deputy Director for Research, Naurzum State Nature Reserve
22	Mr. Idris Zh. Zhanapin	Deputy Akim of Ayirtau district
23	Mr. Amanbek G. Makhmetov	Head of tourism unit of Ayirtau district
24	Mr. Sergey V. Shvetsov	Project Manager, Makinka-2015 LLP
25	Ms. Tatyana M. Bragina	Kostanay State University
26	Mr. Sergey L. Sklyarenko	Deputy Executive Director, Director of the Center for Applied Biology
27	Mr. Talgat G. Sagyndyk	Director Yereimentau branch of "Buiratau" SNNP
28	Ms. Kymbat Chayparova	Kostanay region, Division of Natural Resources and Environmental Management, Unit Head
29	Mr. Anatoly S. Markitan	Head of the nursery of MSE "Prigorodnoye forestry institution", Kostanay region
30	Mr. Kanat Batyrhanuly	Deputy Director of Naurzum SNR
31	Mr. Berik S. Makanov	Deputy General Director of SNNP “Kokshetau”
32	Mr. Alexander Kolosovsky	Head of IP Kolosovsky , Akmola Oblast
33	Ms. Ekaterina P. Vibe	Head of the Department in LLP " KazNIILKha" of Akmola region
34	Mr. Andrei A. Kalachev	Director of the Altai branch of LLP " KazNIILKha " of East Kazakhstan region

35	Mr. Vasily Lobanchuk	Head of the Division of Natural Resources and Environmental Management of the North Kazakhstan Region
36	Mr. Nurlan Suleimenov	Deputy Director of the State Enterprise " Kazlesproject "
37	Mr. Asylkhan D. Asylbekov	Director of "Biodiversity Conservation Fund of Kazakhstan"
38	Mr. Yevgeny Klimov	Chairman of the Kazakhstan Federation of Organic Agriculture Movements - KAZFOAM
39	Mr. Victor Aslanov	Head of the Union of Field Growers of Kazakhstan
40	Mr. Arsen Karimbekov	Head of the Qazaqstan Organic Producer Union
United Nations Development Program		
41	Mr. Maxim Vergeichik	UNDP Regional Technical Advisor
42	Mr. Arman Kashkinbekov	Head of the Sustainable Development Unit, UNDP in Kazakhstan
43	Ms. Janetta Babasheva	UNDP Kazakhstan, Specialist on Resource Mobilization and M&E
44	Mr. Firuz Ibrohimov	Acting Program Analyst, Sustainable Development Unit, UNDP, Kazakhstan
45	Mr. Yerlan Zhumabaev	Project Manager for Sustainable Land and Water Management, UNDP in Kazakhstan
46	Mr. Talgat Kerteshev	UNDP Biodiversity Project Manager
47	Mr. Roman Kusainov	Agroeconomist of projects on sustainable land and water management of UNDP in Kazakhstan
48	Ms. Aray Belgubayeva	Protected Areas and Biodiversity Expert, UNDP
Experts and consultants		
49	Ms. Irina Golomina	International Consultant: Project Development Specialist
50	Ms. Natalya Panchenko	Local Project Coordinator/ Environmental Specialist
51	Mr. Bakhtiyar Sadyk	National Project Expert/Integrated Land Use Planning and Sustainable Livestock Management
52	Mr. Kanat Akshalov	Head of Laboratory, Grain Management Institute/ National Project Expert
53	Ms. Dariga Makhashova	National Water Management Expert
54	Mr. Sergey Turumbayev	National Forest Management Expert

55	Mr. Rustem Vagapov	National expert on protected areas and biodiversity
56	Ms. Victoria Kovshar	Expert ornithologist
57	Ms. Aliya Tonkobaeva	Knowledge management expert
58	Ms. Zhanar Kuragulova	GIS specialist
59	Ms. Aliya Kadir	Gender Expert

Annex 28-3. Key suggestions from workshop participants

Stakeholder/participant	Comment/suggestion	PPG Team Response	Adjustments to be made
Mr. Kanat Akshalov, Head of Laboratory, Grain Management Institute	Will it be possible to review and comment the draft project document? Can it be shared with workshop participants?	Yes, UNDP CO will share the draft project strategy with the workshop participants for review and feedback.	UNDP CO to share the draft project strategy in Russian and collect inputs/comments for further integration in the final Prodoc
Mr. Bakhtiyar Sadyk, ILU and pasture expert	This project will be the first to pilot integrated land use planning and management at the level of rural okrugs, experiences of other projects implemented by UNDP Kazakhstan should be well accounted.	On integrated land use planning, lessons learned from the MSP GEF project on agricultural incentives related to integrated planning are integrated in the current project document and this project will also account for climate changes in ILUPs	None required
Ms. Tatayna M. Bragina, Kostanay State University	Lake system Aksuat, which is the focus of one demonstration project on restoration of degraded lake systems, is located in the Naurzum State Nature Reserve where any extraction of bottom sediments is prohibited. The project should avoid any mechanical/physical disturbances in the lake system as such interventions would run against the strict protection regime of the Reserve.	The demonstration project #3 on "Improving the ecosystem integrity of wetlands on the area of 2,000 ha of the Aksuat lake system of the Naurzum State Nature Reserve (SNR)" aims at providing sufficient quantity and quality of water to in the degraded wetland ecosystem to restore its productivity. This demonstration project has no activities on extraction of sediments or any other physical disturbances in the Reserve. Instead, analysis of current hydrological regime of the Naurzum-Karasu and Dana-Bike Rivers which feed the reserve's lakes and represent a source of water for agricultural	None required. Raised points already covered by proposed demonstration activities (See Annex 21 of Prodoc, Demonstration project #3)

		enterprises involved in cattle breeding and fodder harvesting (haymaking), melon farming in the catchment areas, develop recommendations and perform demonstration activities on how water inflow can be increased to the lake system while providing sufficient water for irrigation activities upstream.	
	Second point, the Naurzum Reserve, its lake system Aksuat and adjacent farmlands in the Narzum rayon represent communicating vessels of water flow in the catchment. In the past, there was a system of ponds upstream to collect melt water for irrigation, which reduced water inflow to the lake system in the Reserve and eventually led to its degradation. It would be good if the project includes installation of gauging stations in the Reserve in addition to agrometeo stations at farmlands to ensure sufficient water inflow to the lake ecosystem for its functioning and sustainability.	The project's activities and the budget under Outcome 3 include the purchase of a lake meteo station (including a gauging station) for the Naurzum State Nature Reserve.	None required. Total Budget & Workplan, Budget note 19: lake meteo station ($44,749)
Mr. Asylkhan D. Asylbekov, Director of "Biodiversity Conservation Fund of Kazakhstan"	This project is a multidisciplinary project addressing not only degradation of productive systems (farmlands, pastures) in NKL but also issues related to	Correct, MoA will act as the project's Implementing Partner while Non-commercial JSC "National Agrarian	It is possible to have the third RP assigned for implementation of Outcome 3 of the project on

	conservation of natural habitats, forest restoration & management, higher education, etc. The Ministry of Agriculture is obviously the lead agency and the project's Implementing Partner, but important to remember that many aspects of the project fall within responsibility scope of the Ministry of Ecology, Geology and NR (MEGNR), Committee for Forestry and Wildlife, Water Resources Committee, the Ministry of Education. Roles, meaning that implementation arrangements of these government organizations should be well reflected in the ProDoc. In this regard, the Biodiversity Conservation Fund of the Republic of Kazakhstan—considering its past successful experience in implementing similar projects on biodiversity/forest conservation/restoration, pasture management (10 projects with total budget of over 4 mln US$), available in-house capacities and certain tax privileges—this all provides substantial ground for the Fund to act as a Responsible Party if not for the whole project but certainly for its Outcome 3 on conservation & restoration of natural habitats.	Science and Education Center" (NASEC) and JSC KazAgro were designated by MoA as the project's Responsible Parties. NASEC will carry out implementation services that can no longer be supplied by UNDP, i.e. direct management of project finance and financial reporting, procurement, contracting, HR management and administrative support. The JSC KazAgro will be the Responsible Party for the project activities related to the sustainable financial mechanisms and agro-environmental incentives (Outcome	conservation & restoration of natural habitats. This can be done prior to the ProDoc submission to the GEF or can be postponed until the project's inception phase including required procedures and assessments, due diligence if needed.
	Second point, given the country's commitments towards the Kyoto protocol and the Paris agreement, it will be important in the project to have a system for carbon sequestration monitoring covering forests/pastures that will be integrated in the country's national communication and reporting to UNFCC.	The project uses the FOLUR Carbon calculations tracking tool that accounts for GHG emissions reduction due to land use change (cropland, grasslands, afforestation)	No changes required
Mr. Marat Dzhadayev, NASEC	Are there other performance indicators in the project--in addition to # of forestry & PA staff trained by the project and a few others mentioned in the	Yes, the project has a project logframe matrix with performance indicators at objective	UNDP CO to share draft project logframe with workshop participants and

	presentation (e.g number or % population benefited from the project, etc.)? It would be good to review proposed project's indicators and amend/change if needed.	and outcome levels, and even at the level of each demonstration project. The logframe matrix includes relevant indicators of the global FOLU IP Program as well as indicators specific to the Kazakhstani context. Also, the logframe has cross cutting gender indicators. All logframe indicators represent envisaged end of project results.	incorporate feedback/comments if any to the revised lofgrame matrix.
Ms. Zhanar Karagulova, KazHydroMet	Could you please clarify what agrometeo forecasting software/model has been budgeted in the project?	In addition to 14 agrometeo posts and 1 lake meteo station, the project will purchase the Land Surface Model, US$ 282,186 (Outcomes 1 & 2), to improve the accuracy of agrometeo forecasting of Kazhydromet in NKL	No changes required

Annex 29: Global-Country Project Linkages in the Northern Kazakhstan Landscape Project

The Northern Kazakhstan Landscape FOLUR project anticipates proactively engaging with the FOLUR Global Platform. The FOLUR Global Platform Prodoc provides extensive detailed information on the plans and strategies for the strong programmatic linkages from the FOLUR Country Projects to regional and global levels.

The global and regional linkages for the project are referenced in the project Prodoc. These include:

- Description of Output 2.6 (p. 20-21) and Annex 20 of the Prodoc, a Draft Concept for the Cooperative platform with wheat exporters and retail companies for Northern Kazakhstan: contains the specific elements through which the domestic Green Wheat Platform will be tied to the FOLUR global platform and the UNDP Green Commodities Program. The project will directly communicate with and participate in these global initiatives, as relevant and appropriate. The Green Wheat Platform will be developed at the national level, with commodity production approaches, best practices and sustainability criteria that can be adopted by companies outside the project area. Information on how the relevant aspects of the project will be scaled locally and nationally to impact sustainable green crop production are discussed in Section 3.5 of the Prodoc (p. 41) where it concerns upscaling and replication.
- Description of Component 4 (p.26) and specifically Output 4.3 (p. 27): Indicates specific project activities for engaging at global and regional levels.
- Section 3.3 of the Prodoc, on "FOLUR Global Platform Engagement, Liaison and Guidance / Support ('Docking')" (beginning p. 35) summarizes key aspects of the Global Platform Prodoc relating to global-national linkages and vertical integration.
- Section 3.5 of the Prodoc "Innovativeness, sustainability and potential for scaling up" (p.41) describes value chain incentives and innovative crop production practices that will contribute to the knowledge and best practice pool of the global IP FOLUR.
- Section 3.6 of the Prodoc "Knowledge management" (p.42) outlines the Knowledge Management approach for the project in the context of the global and regional platforms and initiatives.
- Annex 23 of the Prodoc, the Value Chain Analysis, summarizes the wheat export situation for the country, outlines the country's position in the international flour market and the value of the specific commodity (wheat) originating in Kazakhstan.

During the PPG, the Northern Kazakhstan Landscape project has been designed specifically with all Global FOLUR guidance taken into consideration, and the project will be prepared to fully engage with the Global FOLUR platform. The specific details of the planned project activities and placeholders for global and regional engagement are further summarized in the rows below in relation to other specific guidance.

There are multiple ways in which the Northern Kazakhstan Landscape project on sustainable green crop production can and will expect to increase impact from global and regional linkages. The main avenues are in relation to:

i. Sustainable green crop production practices;

ii. Innovative financial instruments and models for sustainable production; and

iii. Green commodity marketing and access to global markets.

The project will proactively seek international good practices for developing sustainable green crop production, and disseminating and implementing those practices amongst the commodity producers.

The project will look to the FOLUR Global Platform for guidance on increasing access to capital for sustainable green crop producers in the Northern Kazakhstan Landscape.

The project also includes specific activities to support wheat producers with access to global markets, but there is the potential for the FOLUR Global Platform to amplify these efforts by tapping into multinational market players, and contributing to the marketing and labelling effort towards promotion of the green wheat production.

The development of the Green Wheat Platform (Output 2.6) will draw on best practices and lessons from the global level, and from other FOLUR IP countries working on green crops. When working to develop Green Wheat Platform, the project team will interface through the Global FOLUR Platform to consult with the FOLUR project teams in the other countries in order to extract good practices and lessons that may be relevant in the context of Northern Kazakhstan.

The project will establish liaisons with the “Transforming Rice-Wheat Food Systems in India” FOLUR CP, sharing experience on developing policies and testing practices that shift wheat producers’ incentives toward sustainability, and with a similar project coming up in Uzbekistan.

The specific ways in which the Northern Kazakhstan Landscape project plans relate to the Global FOLUR platform, as well as other global and regional initiatives, are summarized and further elaborated in the table below.

Table 1. Northern Kazakhstan Landscape Project Results: from Local to Global

FOLUR Activities	Structure, Cooperation, and Guidance from the Global Level	Linked Project Outputs and Activities
FOLUR Global Platform:		
Program Capacity Strengthening: trainings to increase capacity to deliver on program objectives; targeted TA to address key gaps and promote innovations; Communities of Practice on target commodities/gender	Global Platform will identify training opportunities and organize training sessions to the country projects or relevant value chain actors; analyze TA demand and specific needs, design and staff TA initiatives; launch and organize CoPs. The NKL Project will be expected to participate in trainings and capacity-building events and bring learning back to relevant audiences (project team, stakeholders and commodity value chain actors). The project specialists will be asked to contribute to peer-to-peer trainings and provide content to the training sessions where relevant. The Project is expected to develop, consult, edit & refine brief documents for lessons learned, outcome stories, policy briefs for global reports; peer reviews, technical contributions, data and analysis toward global knowledge products and flagship reports.	The following specific project activities have a potential to be show-cased in the FOLUR knowledge products, and be offered for trainings and TA: - Integrated Land Use Planning "how-to" guide will constitute the project's recipe for effective participatory landscape-level land use planning and management and can support GP work on influencing change in policies and standards; - The project will present the experience with responsible wheat production and crop diversification technologies, to other countries with similar commodities within the FOLUR cohort (India) and beyond; - A corporate standard for responsible wheat production will be offered for possible adaptation; - Kazakh experience with agroenvironmental incentives to increase access of small-holders to affordable funding for sustainable production will be summarized, and content for possible trainings developed based on the demand; - the Project experience with the market players' engagement to promote products from sustainable crop farming will be analyzed for further reference within the FOLUR community; - Kazakh experience with extension services to farmers and relevant lessons learned will be summarized for sharing; - The project will generate a set of knowledge products around ecosystem conservation and restoration techniques for further distribution within the region of the Central Asia and other countries with similar landuse features and landscape mosaic. TA and training events organise by the Project will benefit from FOLUR corporate knowledge and guidance. Specifically, sustainable crop production practitioners from relevant countries will be invited as speakers for training and development programs for raising key competencies of local land management authorities and farmers. The Project will ensure participation in trainings, capacity-buildings events and other meetings of the FOLUR partners and country projects. Project
Policy and value chain engagement: : private sector engagement, commodity roundtables; stakeholder-tailored flagship reports; country policy reforms and incentives; innovation funds on key issue areas like private sector and gender	The Global Platform will catalyze country level engagement with private sector to transform commitments into actions by providing dialogue opportunities, regular participation in round tables; lead on engagement with regional and global roundtables; advance country dialogue on sustainability and policy reforms toward improved production, restoration practices, standards and incentives; lead flagship studies addressing key issues and opportunities in FOLUR landscapes / commodities; take lead on the innovation funds and engage relevant sectors in resource mobilization. The Project will be expected to lead on country level engagement with producers, SMEs, local finance institutions to complement outreach and engagement at regional and global scale; collaborate with GP	

FOLUR Activities	Structure, Cooperation, and Guidance from the Global Level	Linked Project Outputs and Activities
	opportunities for engagement with national or multinational companies; participate in relevant national or regional commodity roundtables, multi-stakeholder platforms and share results, findings and impacts.	budgeting under Output 4.3. includes specific activities to participate in the Global FOLUR IP, such as the inclusion of international travel for two participants to travel to FOLUR Global Platform meetings (e.g. semi-annual Good Growth Conferences). At such meetings the representatives from the project will be expected to present summary information about the progress of the FOLUR project in Kazakhstan, especially related to new approaches or lessons learned during project implementation. The Kazakh project team will include an outreach and communications specialist, who will be fluent in English and will be specifically tasked with producing knowledge outputs for the FOLUR Global Platform, including the Green Commodities Community of Practice. Project KM aspects are summarized in the Section 3.6 of the Prodoc "Knowledge management". To support this work the project budget specifically foresees that the project team will include a communications and outreach specialist who will be responsible for producing content drawing on the project's experiences and lessons.
Strategic Knowledge Management and Communication	The Global Program will consolidate work on sharing of lessons and best practices, and outreach for strategic knowledge products; provide direct KM and communications support on cross-cutting issues facing CPs - gender and private sector engagement; develop knowledge products to share lessons & best practices, conduct outreach, use tools for scale up and replication through web presence and knowledge bank. The Project is expected to participate in regional and global events in coordination with GP; document and share lessons, insights, achievements regularly; interact with the GP communications team.	
M &E	The Global Program with guide and coordinate M&E and facilitate corporate reporting. The Project is expected to follow the guidance, implement the M&E plan implemented and ensure timely and comprehensive presentation of verifiable data.	M&E roles and responsibilities are outlined in the project's M&E Plan, which is included in the Prodoc, Section V.
UNDP Green Commodities Programme Community of Practice	It is expected that all UNDP FOLUR projects will actively participate in the Green Commodities Programme (GCP) Community of Practice (CoP). The GCP CoP (https://www.greencommodities.org/content/gcp/en/home/global-initiatives/green-commodities-community.html) is managed by UNDP, and is the place where local practitioners and global change makers come together, to build the capacity and improve the practices of local practitioners. The GCP CoP conducts virtual workshops throughout the year, with 60 such workshops held in 2019. The CoP brings together the best practices	The Kazakhstan project will actively participate in the GCP CoP, with as many relevant project staff, national stakeholders, and local practitioners as is feasible. The participation will be ensured through the activities of the Green Wheat Platform (Output 2.6 of the Prodoc).

FOLUR Activities	Structure, Cooperation, and Guidance from the Global Level	Linked Project Outputs and Activities
	between regions, and between commodities. The CoP includes a member directory, and currently has more than 250 practitioners registered, and this is expected to grow to more than 300 once the FOLUR projects are under implementation, with an additional 5-10 people from each UNDP FOLUR project (at a minimum) participating. The platform is open to participants from FOLUR projects supported by any other agency as well (and UNDP cooperates with FAO on the CoP), but UNDP will be aiming to ensure participation from its FOLUR projects. The thematic focus and direction of work of the CoP is driven by member feedback through surveys. The CoP provides a sense of connectivity, learning, dialogue, and is a capacity strengthening platform, where participants feel valued as members of the practitioner community. The CoP also meets in-person approximately every 18 months at an event called the Good Growth Conference.	
Other Global and Regional Linkages	N/A	Kazakhstan FOLUR project aims to trigger wide-scale adoption of efficient land management technologies and conservation approaches and promote green crops value chains to change the trajectory from cropland, pasture, forest and wetland degradation to sustainable management for multiple benefits. The project will offer and test concrete tools applicable for the Central Asia to promote integrated approaches for land use planning, support financial incentives for sustainable agriculture, and pave the way from unsustainable mono-culture production towards sustainable agricultural development, improved productive land management, better forest and wetland protection.