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United Nations Development Programme

Project Document for projects financed by the various GEF Trust Funds

PROJECT TITLE: CONSERVATION AND SUSTAINABLE MANAGEMENT OF LAKES, WETLANDS, AND RIPARIAN CORRIDORS AS PILLARS OF A RESILIENT AND LAND DEGRADATION NEUTRAL ARAL BASIN LANDSCAPE SUPPORTING SUSTAINABLE LIVELIHOODS		
Country: Uzbekistan	Implementing Partner (GEF Executing Entity): State Committee on Ecology and Environmental Protection	Execution Modality: Assisted NIM
Contributing Outcome UNDAF/UNDP Outcome: By 2020, equitable and sustainable economic growth through productive employment, improvement of environment for business, entrepreneurship and innovations expanded for all.		
UNDP Social and Environmental Screening Category: Moderate	UNDP Gender Marker: GEN2	
Atlas Award ID: 00120486	Atlas Project/Output ID: 00116676	
UNDP-GEF PIMS ID number: 6465	GEF Project ID number: 10356	
LPAC meeting date: TBC, before the CEO Endorsement		
Latest possible date to submit to GEF: <i>June 19, 2021</i>		
Latest possible CEO endorsement date: <i>December 19, 2021</i>		
Project duration in months: <i>60 months</i>		
Planned start date: <i>January 1, 2022</i> <i>this is defined as the expected project document signature date. Equivalent to Expected Implementation Start noted in CEO endorsement request. Project document signature must occur within 25 days of GEF CEO endorsement of this project.</i>	Planned end date: <i>December 31, 2026</i> <i>this is defined as the planned date of operational closure. Equivalent to Expected Completion Date noted in CEO endorsement request.</i>	
Expected date of Mid-Term Review: <i>September 30, 2024</i> This must be within 36 months of CEO endorsement.	Expected date of Terminal evaluation: <i>November 30, 2026</i> Operational closure is within 3 months of posting the TE	
Brief project description: The objective of the project is to enhance the resilience of the ecosystems and livelihoods in Lower Amudarya and Aral Sea Basin (LADAB) through land degradation neutrality (LDN) compatible integrated land-water management in the productive landscapes around PAs and KBAs/IBAs. The four components proposed by this project have been designed within available GEF and co-financing framework to address the corresponding drivers of land, water degradation and biodiversity decline, which are directly linked to the diminishment and loss of lake, wetland and riparian biodiversity in this arid landscape. The project will deliver Global Environmental Benefits using a participatory approach that ensures promotion of women, youth and vulnerable groups and equitable participation opportunities. This will result in the establishment of an integrated water management framework linking “water saving agriculture” on 1,050,910 ha of irrigated land in LADAB landscape with the sustainable management of the minimum and the maximum ecological flows, required to sustain 957,260 hectares of lakes, wetlands and riparian zones;		

participatory Sustainable Land Management (SLM) measures applied to 100,000 ha of pastureland, tugai and tauranga forest ecosystem and halting habitat degradation; extension of the PAs national system's coverage, to include 9 additional KBAs/IBAs, through the legal designation of 3,094,600 ha new PAs which, coupled with an expected 20% increase in the management effectiveness of the exiting PAs and a guaranteed minimum ecological flow to sustain the deltaic water bodies, will cumulatively result into stabilized population of the key indicator species and the ecological integrity of a chain of watered lands along the Aral coastline, crucial for preventing desertification and loss of biodiversity

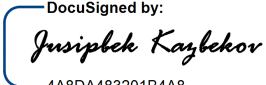
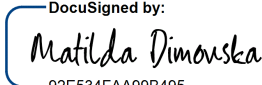
FINANCING PLAN	
GEF Trust Fund	USD 3,552,968
UNDP TRAC resources	USD 270,000
Confirmed cash co-financing to be administered by UNDP	USD 270,000
(1) Total budget administered by UNDP	USD 3,822,968
FURTHER CONFIRMED CO-FINANCING	
<i>Ministry of Water Resources</i>	USD 40,000,000
<i>Ministry of Agriculture</i>	USD 8,000,000
<i>State Committee for Ecology and Environment Protection</i>	USD 5,520,000
<i>Forestry Enterprises</i>	USD 1,800,000
<i>Council of Farmers</i>	USD 4,000,000
(2) Total further confirmed co-financing	USD 59,320,000
(3) Grand total confirmed co-financing	USD 59,320,000
(4) Grand total project financing (1) + (3)	USD 63,142,968
SIGNATURES	
Agreed by Implementing Partner	Agreed by UNDP
<p>DocuSigned by:  4A8DA483201B4A8...</p> <p>Mr. Kazbekov Jusipbek</p> <p>Deputy Chairperson of the State Committee of the Republic of Uzbekistan for Ecology and Environment Protection</p> <p>Date: 22-дек-2021</p>	<p>DocuSigned by:  92E534FAA99B495...</p> <p>Ms. Matilda Dimovska</p> <p>UNDP Resident Representative in Uzbekistan</p> <p>Date: 22-Dec-2021</p>
<p>Project document signature: within 25 days of GEF CEO endorsement</p> <p>First disbursement date: within 40 days of GEF CEO endorsement</p> <p>Inception workshop date: within 60 days of GEF CEO endorsement</p> <p>Operational closure: within 3 months of posting of TE to UNDP ERC</p> <p>Financial closure: within 6 months of operational closure</p>	

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Acronyms

ADB	Asian Development Bank
AWP	Annual Work Plan
BISAs	Basin Irrigation Systems Authorities
BWO	Basin Water Organization
CAREC	Central Asia Regional Economic Cooperation programme
CBD	Convention on Biological Diversity
CIS	Commonwealth of Independent States
CO	Country Office (UNDP)
CPD	Country Programme Document (UNDP)
FAO	Food and Agriculture Organization (of the United Nations)
FC	Field Coordinator
FSP	Full Size project
GDP	Gross Domestic Product
GEB	Global Environmental Benefits
GEF	Global Environmental Facility
GEF SEC	Global Environment Facility Secretariat
GII	Gender Inequality Index
GIS	Geographical Information System
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GPS	Global Positioning System
HDI	Human Development Index
IBAs	Important Bird and Biodiversity Areas
ICWC	Interstate Commission for Water Coordination
IFAS	International Fund for Saving the Aral Sea
ISAs	Irrigation System Authorities
KBAs	Key Biodiversity Areas
KRASS	Khorezm Rural Advisory Support Service (NGO)
LADAB	Lower Amudarya and Aral Sea Basin
LDN	Land Degradation neutrality
M&E	Monitoring and Evaluation
NGOs	Non-Governmental Organizations
PIF	Project Identification Form
PIR	GEF Project Implementation Report
POPP	Programme and Operations Policies and Procedures
PPG	Project Preparation Grant
RTA	Regional technical Adviser
SES	Social and Environmental Safeguards
SIC	Scientific Information Centre
SLM	Sustainable Land Management
SRM	Stakeholder Response Mechanism
STAP	GEF Scientific Technical Advisory Panel
SLM	Sustainable Land Management
TAG	Technical Advisory Groups
TL	Task Leader
UNDP-GEF	UNDP Global Environmental Finance Unit
UNCCD	UN Convention to Combat Desertification
UNFCCC	UN Framework Convention on Climate Change
UNMPHSTF	UN Multi-Partners Human Security Trust Fund for the Aral Sea
UNRCCA	United Nations Regional Centre for Preventive Diplomacy in Central Asia
UZS	Uzbekistani Soum
WB	World Bank
WUAs	Water Users Associations

I. DEVELOPMENT CHALLENGE

1.1 Overall development context and challenge (socio-economic, sustainable development)

1. Uzbekistan is the third largest country in Central Asia with an area of 447,000 square kilometres (mostly desert), with its territory divided into 12 main administrative areas (*oblasts*) and the semi-autonomous Republic of Karakalpakstan in the northwest. Against the background of the well-known Aral Sea disaster that has occurred over the past 70 years, Uzbekistan's road to development has been different from its neighbours in that it has taken a more gradual approach to market reforms, relying on state-led development that emphasized import-substitution industrialization. Today, land degradation and water insecurity, exacerbated by climate change, are major threats to sustainable development. Land degradation alone translates into approximately 1 billion USD economic losses annually¹. The key development challenge to which the project responds is the need for a well-planned integrated land/water management in order to improve water use efficiency, counterbalance rampant soil degradation, increase water availability to natural ecosystems to preserve biodiversity, sustain livelihoods and achieve resilient, inclusive and sustainable growth in the long run.

2. With a population of 30 million, the country is densely populated compared to other Central Asian republics. Ethnically, 76% of the population are Uzbek, 6% Russian, 5% Tajik, 4% Kazakh, 2% Tatar, and 1% Kyrgyz, and other groups include Armenians, Bashkirs, Karakalpak, Koreans, Nogay and Turkmen. Approximately 33.1% of the country's work force of 15.5 million² is employed in agriculture, which remains the keystone of the economy, accounting for 28.7% of the GDP. In terms of real incomes per capita, Karakalpakstan lags behind the national average by almost 1.4 times and ranks 12th among the countries in the region. About 54.5% of incomes are generated from entrepreneurial activities, including 40.4% from private smallholdings. Smallholders whose income depends mostly on extensive livestock production on marginal pastures are mostly impacted by rangeland degradation. The level of poverty (27.0%) and labor migration are the highest in the country and 19.8% is the average percentage of households with at least one family member working abroad. During the Soviet era Uzbekistan was transformed into a cotton centre. The massive land-use change and rivers regularizations and the construction of one of the most extensive irrigation systems in the world, have diverted vast amounts of water to agriculture and brought enormous tracts of land into cotton production with huge costs to natural ecosystems. The country is among the world leaders in cotton and the products still dominates its agriculture sector. Karakul sheep breeding continues, however reduced demand for skins is changing meat production strategies.

3. Uzbekistan implemented agricultural reforms to improve irrigation efficiency and still meet the demand for food. Despite these reforms, Uzbekistan as a whole still faces major challenges with desertification and water scarcity exacerbated by climate stressors such as increasing temperatures, more frequent and extreme droughts, lower precipitation levels during parts of the year, and changes in weather patterns that shift the growing season. These stressors are projected to intensify in the coming decades, significantly affecting economic sectors and natural resources throughout Uzbekistan. The projected changes include the following: (i) Increased annual mean temperature of 1.3 to 2.1 °C by 2030; 1.8-3.30 °C by 2050 and 2.0 to 5.4 by 2085. (ii) Increased in annual maximum temperature of 2.1 to 6.30°C and increase in minimum temperature of 2.2 to 5.60°C by 2085; (iii) Long lasting heat waves are projected to increase in duration by 3 to 9 days by 2030, between 4 and 17 days by 2050, and between 6 and 43 days by 2085; (iv) Anticipated change in total annual precipitation ranges from a decrease of three percent to an increase of 12 percent by 2030 and a decrease of 6 percent to an increase of 18 percent by 2085, with most projections showing an increase; (v) Dry spells are expected to grow longer by up to four days by 2085; (vi) Overall increase in arid conditions due to changing precipitation patterns and increased temperatures; (vi) Heavy rain events are projected to increase in intensity by 3 to 11 percent and frequency by 7 to 36 percent by 2030, and in intensity by 7 to 23 percent and frequency by 12 to 74 percent by 2085.³

4. Manufactured products included textiles, food processing, machine building, metallurgy, mining, hydrocarbon extraction, and chemicals. The country is also rich in coal, zinc, copper, tungsten, uranium, and silver. Russia began reimporting Turkmenistan's gas in 2019, which is expected to affect Uzbekistan's oil prices and demand. The services sector

¹ The Aral Sea Basin- Water for Sustainable Development in Central Asia

<https://www.routledge.com/The-Aral-Sea-Basin-Water-for-Sustainable-Development-in-Central-Asia/Xenarios-Schmidt-Vogt-Qadir-Janusz-Pawletta-Abdullaev/p/book/9781138348882>

² World Bank

³ USAID, Uzbekistan Climate profile, 2017

accounts for 31.6% of GDP and employs 36.4% of the total workforce (World Bank). Key services include transportation and tourism. Uzbekistan was the fourth fastest growing country for tourism in 2019 (+27.3%), receiving 6.7 million tourists (United Nations World Tourism Organization).

5. A surge in investment and a pickup in consumption boosted GDP growth to 5.6% in 2019. Public investment in industrial facilities, infrastructure (gas, hydroelectric, roads, and housing) - as well as household consumption (more than 50% of GDP) – have all promoted growth. According to April 2020 Asian Development Bank (ADB) report, the economic growth is expected to slow down in 2020 due to COVID-19 outbreak and falling gas and copper prices, with GDP growth estimated at 4.7% in 2020 and 5.8% in 2021. In 2019 the government debt rose to 23.3% of the GDP and will increase continue to increase up to 24.8% in 2020. Budget surplus fell to 0.6% in 2019, expected to decrease further in 2020 (0.3%) and 2021 (0.2%). Key economic challenges include lack of economic diversification, reliance on commodity prices, a large informal economy, low economic competition, an underdeveloped banking sector, and state intervention in Credit, Prices, Administrative, and Custom Affairs (COFACE). The official unemployment rate was 9.1% in the first half of 2019, although this figure is severely underestimating the size of the informal sector. According to the World Bank projection, poverty rate rose between 8.7-10% following the outbreak (approx. 0.45-0.88 million people).⁴ The country remains susceptible to persisting poverty, unstable water supply, poor water quality and food insecurity.

6. Uzbekistan's Human Development Index (HDI) value in 2018 was 0.710 which puts the country in the high human development category, positioning it at 108 out of 189 countries and territories. The analysis shows an increase of the HDI between 2000-2018 from 0.596 to 0.710, remaining, though, below the average of the countries in the same group. Inequality adjusted HDI is not available due to lack of data. Gender Inequality Index (GII) value of 0.303, ranking 64 out of 162 countries, is showing a reasonable degree of economic activity and a high degree of literacy among women. Gender indicators are closely interlinked with poverty indicators. Female participation in the labour market is 53.4% compared to 78.0 for men. National poverty rate is 11.5% with higher poverty rate in Karakalpakstan (23.8%). Inflation rate is expected to increase, influenced by an increase in utility tariff prices which will impact the most vulnerable segment of the population.

1.2 Environmental context

7. The land and water values of the Aral Sea Basin are set within the context of the well-known Aral Sea disaster that has occurred over the past 70 years. Although the ecosystem services available are much less than when the Aral Sea was in its previous condition in the first half of the 20th century, the region still supports the livelihoods of millions of people in Uzbekistan. In Uzbekistan the Aral Sea Basin is formed by a major part of the watershed of the Amu Darya river. Natural and semi-natural landscapes and ecosystems extend over 82 % of the territory of Uzbekistan. The remaining 18 % of the country, natural landscapes, ecosystems and habitats have largely been transformed, making way for agriculture, settlements and infrastructure development⁵. Rangelands in Uzbekistan are one of the most important life-supporting natural ecosystems, used extensively for livestock ⁶. At the same time, poorly managed rangelands lead to land degradation and loss of plant biodiversity. Despite of the tragic drying up of the Aral Sea, its basin still contains critically important lakes, wetlands and riparian ecosystems, although they are vulnerable to unstable hydrological regime. Uzbekistan is a very important flyway for many migratory bird species between northern Europe and their wintering grounds in Africa and Asia. The country hosts 525 lakes, most with areas of less than 100 ha, with only 32 lakes exceed 1,000 ha. Many larger irrigation-wastewater lakes (e.g. Sudochoye, Dengizkul and Sarygamysh) and the Aydar-Arnasay Lake System became important nesting sites for migratory and wintering bird species. The riparian tugai and turanga forests growing along the floodplains of Amudarya river⁷ harbor a rich biodiversity, hosting more than 267 species of birds. They still play an important role in maintaining environmental stability in the region and serve as center for flora and fauna species despite their significant reduction over the past 60 years. The Amu Darya River retains three endemic fish species, Red List mammal species such as Eurasian otter (*Lutra lutra*) and Bukhara deer (*Cervus elaphus bactrianus*). While lakes, wetlands and riparian ecosystems are highly

⁴ <http://pubdocs.worldbank.org/en/834051595427687698/L2CU-COVID19-impacts-June2020-en.pdf>

⁵ 2019 Sixth National Report to the CBD

⁶ In 2016, almost 95 percent of meat in Uzbekistan was produced in household plots of dekhkan farms (smallholders)

⁷ Tugai (Tugay) forest is a form of riparian forest in arid climates, largely depended on periodic flooding, with poplars (*Populus diversifolia* and *Populus pruinosa*) and willows, tamarisk, oleaster, sea buckthorns and reed. Dam constructions, tree cutting, grazing and agriculture encroachment led to massive loss of tugai ecosystems. Turanga forests are dense tugai forests with adult poplar trees *Populus euphratica*

important for resilient landscapes and sustainable livelihoods, they also represent pockets of high biodiversity within the Aral Sea Basin's desert landscape. Most of the productive lands as well as IBAs/KBAs are associated with the Amudarya river and its floodplains. Uzbekistan's biodiversity includes 27,000 known species, out of which 11,000 species represent flora (including vascular plants, mosses, lichens, fungi, algae). Vascular plants are represented by at least 4,500 species belonging to 115 families and 650 genera. Endemism is rather low (around eight percent). Relict endemic species constitute 10 to 12 percent of all endemics. The fauna of Uzbekistan has an ancient and complex evolutionary history. In addition to the endemic fauna, other species migrated during geological history of the area from the deserts and mountains of surrounding territories of Central Asia, and from India, China, and the grasslands of Kazakhstan, as well as from Siberia, southern Europe, and northern Africa. The present vertebrate fauna includes 715 species: 107 mammals, 467 birds, 61 reptiles, three amphibians, and 77 fishes. The invertebrate fauna is estimated at 15,600 species.

8. Legislative and Institutional context Land degradation is deeply rooted at the interface between the availability of natural resources, evolving climate conditions, the interaction between different land users and the overall socio-economic and development and policy context in the country. A reasonably well developed environmental legislative framework in the country and the recently adopted laws and policies, show that the Government of Uzbekistan is moving towards the prioritisation of the conservation and sustainable use of biodiversity, the reduction of land degradation and the protection of freshwater resources (Please see *Annex 23: Legal/Institutional Assessment*)

1.3 Environmental threats, their primary root cause and immediate drivers

9. Unstable water supply for critical ecosystems and agriculture exacerbated by climate change: Uzbekistan was ranked 25th out of 164 countries in terms of water stress (World Resource Institute). During low-flow years, wetlands, lakes and KBAs/IBAs in the lower reaches of Amudarya delta do not receive water and are drying out, whereas during high water years, the floods can extend 2-3 months with a discharge up to 2000 m³/s; the instability of the water regime is negatively impacting on lakes and key biodiversity habitats. The Interstate agreements guarantee a minimum flow to the northern delta of 3.2 km³/year (100 m³/s) and 2 km³/year for ecological and fish farming needs however in reality these norms are not observed nor enforced⁸. The insecurity of the water supply and water stress are further aggravated by the irrational water use in agriculture sector, on irrigated areas, driven by a lack of adequate water pricing, lack of technical knowledge and available financing for climate smart technologies, all of which perpetuate a lack of farmers' motivation towards water saving. The exiting climate risk assessments and climate projections show that the country is highly vulnerable to climate change and water insecurity is expected to become more acute. The LDN National Target Setting process has highlighted LADAB, Karakalpakstan in particular, as the main " LDN hot spot" where land degradation has been persistent during the past two decades due to destructive land use, and where soil, vegetation cover and micro land features are highly degraded and degradation is exacerbated by the warming temperatures trend. The annual average temperature increase since 1950 is 0.27°C per decade, which is twice the global average. This has led to accelerated evapotranspiration and caused changes in the timing and zones of snow and ice melt, consequently, changes in river flows and increased risk of droughts and floods.

10. The Second National Communication to UNFCCC shows a steady rise of temperatures during the past decade, a subsequent decrease of the water availability and an anticipated additional pressure on the existing irrigation demands. Current climate models are estimating increasing water deficits due to climate change up to 7 km³ by 2030 (compared to 2 km³ in 2005). Loss of pasture productivity will be amplified by climate change and climate change induced water scarcity. Forage shortages, a common occurrence in this arid climate, are caused by low yield years (2-3 years within a decade). However, the patterns are changing as temperatures are increasing and water availability decreases; nowadays, it is observed that within a decade, the number of years with low pasture productivity and low yields are increasing (5 years/decade). The expert assessment of the economy sectors' vulnerability to climate change for the next 15 years has revealed that the most vulnerable sectors affected by drought (the most threatening climatic hazard in Uzbekistan) are agriculture, water sector, and natural ecosystems/biodiversity. A single drought event in 2000 affected 600,000 people and caused an economic loss of \$50 million. The long term rating has shown that this trend will be maintained in the future.

⁸ Aral Sea Wetland Restoration Strategy/ World Bank and Government of the Netherlands

"Incorporating environmental flows into water management in the Amudarya river delta"(2003-2007) <https://www.arcgis.com/apps/MapJournal/index.html?appid=a64d4f5c870f44729858a639cb06928b>

⁹ Uzbekistan Climate Risk Profile, UNDP 2015

Uzbekistan's current climate risk management system is in an incipient stage, the country does not have a separate agency to deal with climate change issues. However it is envisaged that the legal framework will be amended to enable climate risks assessments and implementation of management measures¹⁰.

11. Soil degradation from salinization, waterlogging and overgrazing: Land degradation is expressed by an increase in secondary soil salinization and the reduction of soil productivity and it is driven by the unsustainable water and land management in irrigated areas. The irrigation system in the targeted regions of Bukhara, Karakalpakstan and Khorezm in the Lower Amudarya and Aral Sea Basin (LADAB), was built 50 years ago and water losses account for 40-41% of the total water withdrawal. Irrigation water losses are not only reducing water availability for other sectors (for fisheries, natural ecosystems) even further, but are also causing waterlogging (due to clogged and aged drainage system) which leads to secondary soil salinization. The fields can be waterlogged for long periods, due to poor drainage network. In waterlogged areas, groundwater table is near the surface (1-2m), leading to soil salinization and loss of productivity.

12. Salinization in the irrigated areas of the four targeted project districts (Alat, Karakul, Amudarya, Moynaq) cover between 60-80% of the total irrigated area in the project sites. Highly saline soils give on average 30-45% less crops per hectare. Approximately 70-80% of the targeted irrigated areas in Bukhara, Karakalpakstan and Khorezm have shallow groundwater tables at 1-2 m which increases soil salinity. Degradation of rainfed rangelands is driven mainly by overgrazing. Animal husbandry plays an important role in the economy of Uzbekistan and supplies more than 40% of the gross agricultural production, and therefore it has a significant impact on land resources and biodiversity. Out of the country's 19 million hectares of pastures, approximately 80% are desert pastures (most suitable for sheep) located mostly in Karakalpakstan, Navoi and Bukhara regions and the rest are semi-desert and high mountain steppes. Over the past decade pasture productivity has declined by more than 23% due to overgrazing (44%), clearing of vegetation for fuel (25%), poor water resources (15%), drifting sands (10%) and others. Desert pastures in the country and in the targeted districts in particular, are characterized by low productivity (feed value 1.1 c/ha) and are affected by progressive degradation due to overgrazing and lack of pasture watering infrastructure.

13. Biodiversity decline and habitat destruction from agricultural encroachment. Biodiversity decline, as highlighted by the Sixth National Report to UNCBD, is driven, inter alia, by habitat loss from land use, fragmentation by the development of infrastructure and unsustainable agricultural practices such as overgrazing and illegal wood cutting. Current land allocations do not account for the biodiversity and protected areas or KBAs/IBAs and possible negative impact on biodiversity. Buffer and productive zones are not delineated clearly on the ground, and there is no systematic spatial and land use planning in the surrounding geographies of the protected areas. Overgrazing in and around protected areas is destroying the habitat, and cattle are often competing with wild ungulates over access to pastures and watering sites. Livestock grazing and browsing in natural tugai and turanga forests are trampling seedlings and riparian vegetation. Around the lakes ecosystems at Sudoche, Jiltirbas, Dengizkul, Akpetki, Rybachye, overgrazing is a constant threat to floodplains and riparian forests and nesting sites are destroyed by herding dogs. Outside current protected areas the impact of local factors that directly affect lakes, wetlands and forest areas is extremely large. These include fires, illegal tree cutting, overgrazing, transport and recreation activities close to feeding or nesting areas.

14. The unsustainable water use in the irrigation sector has a far-reaching influence on the availability of water for lakes and wetlands. Due to the absence of regular floods, the formation of young tugai massifs practically does not occur leading to habitat destruction; the absence of annual flooding prevents seedlings grow and mature therefore the habitat declines, and with it, the population of key species decreases e.g. Bukhara deer *Cervus elaphus bactrianus*, the endemic pheasant subspecies (Khiva pheasant) *Phasianus colchicus chryzomelas* and a number of more than 20 species of endemic and local species of invertebrates (The Red Book of Uzbekistan). Destruction of wetland habitat, lakes and riparian ecosystems, especially in the lower Amudarya delta is caused by the unstable water regime and climate change, poor wetlands/lakes management or lack of protection. Many lakes and wetlands and riparian zones in lower Amudarya are KBAs/IBAs and they still host more than 80 registered species in the national red Book (2019), including 21 globally endangered bird species. Unstable water regimes determine nesting bird species to change their nesting sites or abandon them. During low water years (2000-2001, 2007-2008), the majority of lakes in lower Amudarya reaches fully dried up. Estimated water shortages for the next decades (2020-2055) in the Amudarya delta, are at approximately 1.06 - 2.74 km³¹¹ for the lakes and wetlands and this only amplifies their vulnerability.

¹⁰ Uzbekistan Climate Profile, 2015

¹¹ USAID PEER Project: Transboundary Water Adaptation in the Amudarya River Basin to Climate Change and Future Challenges

II. STRATEGY

2.1 The long-term solution

15. The long-term strategy that will lead to decreased land degradation and conservation of the Lower Amudarya and Aral Sea Basin (LADAB) biodiversity will be based on a climate resilient, LDN compatible, integrated management approach to water and land resources. The distribution of water resources, accounting for climate change and promoting Land Degradation Neutrality, is key to a long-term solution. Only an integrated water-land management approach, will allow the rational management of the water resources of the Aral Sea Basin among multiple users and, as a result, releasing necessary volumes of water to maintain the lakes, wetland, and riparian ecosystems of the Aral Sea Basin. The project is focusing on addressing land degradation issues where there is a gap (e.g. pasture management) and stopping habitat destruction by improving PAs system management and by promoting biodiversity friendly practices in production zones. The approach is based around the LDN and KBA/IBA philosophy: an integrated and inclusive LDN compatible spatial and land use planning and integrated water/land management in productive landscapes, to ensure transition towards land degradation neutrality and guaranteed ecological flow to wetlands, lakes and riparian zones, and a strengthened and representative protected area network with biodiversity corridors and distinct buffer zones. The full implementation of the long-term solution will depend on many stakeholders and will be a long-term process. The project will seek to achieve incremental progress toward this long-term solution.

2.2 Key past and ongoing interventions

16. The key past and ongoing interventions consist of agricultural reforms intended to shift production away from cotton, and toward producing food crops, and this transition continues. Cotton production still dominates the market, although recent government efforts under the fifth stage of farm restructuring (2016-2020) includes complex measures aiming at decreasing cotton production. The Government's intention is to reduce cotton as much as possible, in highly salinized areas, and to support transition to other crops such as vegetables, fruits, and grains, involving innovative agricultural technologies. Land freed up from cotton is planned to be allocated for potato, vegetables, fodder crops, intensive gardens and other crops. With the new initiative a total of 170,000 hectares of land is available to plant products other than cotton. However, a lack of financing and services, availability of inputs (which favours only large farms especially cotton and wheat oriented), absent connection to marketing channels, missing business models and farmers' lack of know-how on sustainable land management impede further diversification of crops and optimisation of land management measures.

2.3 The projected baseline scenario

17. Within the current Theory of Change and baseline situation, the project strategy stems from the fact that the transition to post-cotton economy is part of the baseline: the land restoration and initial management of these lands is assessed at 1,500 USD per hectare and will be funded by the Government. Where the GEF can be incrementally valuable is to address the remaining barriers and complement the post-cotton Government baseline with initiatives that focus on the important other elements within the landscape, Land-Water NEXUS which are – integrated water management, sustainable pasture and forest management and retention of valuable ecosystems – all of which ultimately are indispensable to support and increase the effectiveness of the transition to post-cotton economy in Uzbekistan. The distribution of water resources is key to resolving these problems. Only an integrated approach will allow the rational regulation of the water resources of the Aral Sea Basin and, as a result, releasing necessary volumes of water to maintain the lake, wetland, and riparian ecosystems. In the current baseline, there are quite a few approaches for improved water management and mitigated land degradation, but there are virtually no approaches linking improved sectoral production systems with the ecological pillars of the landscape: the lakes, wetlands and riparian corridors. In addition, existing protected areas in the Aral Sea region protect only 1% of the endangered species and unique ecosystems and there are significant capacity gaps within the current PA system preventing them to fulfill their management objectives. *(Please see Annex 25: List of Baseline programmes and Projects)*

<http://www.cawater-info.net/projects/peer-amudarya/>

2.4 Barriers

Lack of institutional coordination and technical knowledge to ensure LDN compatible sustainable water and land management in production landscapes

18. The National LDN Target Setting has highlighted the need of strengthened technical capacities of the government institutions involved in land and water governance and for improved inter-institutional coordination to manage natural resources. There is little interinstitutional coordination in the public sector to help reconcile water needs among different sectors and promote LDN compatible sustainable production landscapes and integrated watershed management. There is insufficient technical knowledge and understanding of the: biodiversity conservation and ecosystem services (and the importance of ensuring the minimum water level necessary for the survival of lakes and wetlands); benefits of the Sustainable Land Management (SLM) related to climate resilience. Riparian forests (outside PAs) are under the government jurisdiction managed by forestry enterprises, however there is limited coordination between forest business units, forest users, PAs units and regional and district level administration in the planning and management of forests and associated forest-pastures-PAs interface areas. Therefore, the allocation of financial resources and efforts to promote sustainable integrated management of production landscapes are limited. The lack of technical knowledge and capacity gaps among natural resources users (farmers, pastoralists, water users) in advanced soil and water conservation technologies for promoting best practices of SLM is prevalent, despite some existing demonstrated SLM models implemented with the assistance of donor projects. In the irrigation sector, halting the significant water wastage and implementing much-needed improvements of the water use will require new capacities in understanding and implementing modern irrigation techniques and water metering and measures to reduce land degradation in irrigated areas.

19. At landscape level, there is a need for a more systematic knowledge base on integrated landscape management practices that do not deplete soil productivity and advocacy work on the impacts to prove their effectiveness and cost-effectiveness and attract investors. There is insufficient public and private investment to develop small and medium-size businesses based on integrated pastureland and forest management to upscale integrated management approaches across the country, due to a perception of delayed economic returns. Yet, many ecosystem services provided by Sustainable Land Management (SLM) measures are usually neglected, as indicated by previous surveys, which revealed that farmers are not familiar with the range of ecosystem service provided for example by afforestation of degraded cropland (i.e. land rehabilitation and climate change mitigation)¹². Similarly, the range of ecosystem services provided by wetlands¹³ is not known and thus, their perceived value is low.

Limited tools to inform and educate decision makers and resource users about the importance of efficient water use in agriculture and maintaining the minimum water levels at critical lakes and wetland habitats A land management approach in arid ecosystems cannot be sustainable unless it takes into consideration an integrated management of water and land resources in production landscapes. The current legal provisions that regulate water allocation among multiple users do not account or guarantee for the minimum ecological flows necessary to maintain critical biodiversity and integrity of lakes, wetlands and riparian zones. Water allocation is dominated by agricultural interests and in the absence of clear legal provisions that defines lakes and wetlands as “natural infrastructure objects” water users, with guaranteed adequate water allocation, there is little chance that the situation will improve. Interstate agreements provide for annual water releases however these norms are not respected, especially during dry years. Although the current water legislation provides for water management and consumption regimes, it is not harmonised with other environmental legislation.

20. The new legislation “Water Concept for the Development of Water Resources” is expected to address some of the discrepancies (by-laws are under development). In the absence of the project however, there is no expectation that a guaranteed minimum ecological flows to the Amudarya delta water bodies and wetlands areas will be defined and enforced by the new legislation. In addition, the current irrigation norms, although based on scientific recommendations, need to consider the increasing water demands along with increased water deficits predicted by different climate scenarios. More importantly, these norms need to be better understood and applied, through an improved planning that will reduce water wastage. Water losses continues in the agriculture sector, consequently, reducing water availability for lakes and wetlands. Finally, there is a need for integrated land-water management frameworks based on baseline data and assessments on

¹² “Sustainable Management in Greater Central Asia- An integrated regional perspective” Victor R. Squires, Lu Qi (Routledge edition, 2017)

¹³ “Incorporating environmental flows into water management in the Amudarya river delta”(2003-2007)
<https://www.arcgis.com/apps/MapJournal/index.html?appid=a64d4f5c870f44729858a639cb06928b>

water resources including the modernisation of hydrotechnical facilities to make them fit for water saving measures and improved timing of release.

Insufficient Protected Areas system's representativity and management capacities

21. The total coverage of different categories of protected areas providing for sustainable conservation of biodiversity in the country is approximately 13.2 million ha however, after the exclusion of forestry enterprises and forest hunting facilities, the actual remaining Protected Areas estate is 2.079 million ha, which represents approximately 4.64% of the country's territory¹⁴, a fairly limited coverage considering that Uzbekistan hosts five types of ecosystems (desert/semidesert; foothills and mountains; rivers and riparian zones; wetlands). The current PAs system does not ensure a sufficient coverage of the KBAs/IBAs in Amudarya basin, which are vulnerable, water dependent ecosystems of lakes and wetlands and riparian corridors, and critical components of a resilient ecosystem. Local authorities, local communities are not sufficiently aware of the importance of IBAs/KBAs. This is coupled with insufficient financial resources and technical capacities of government institutions to provide for adequate conservation and management of the Protected Areas, despite the government's efforts. In addition, there appears to be a general lack of business-oriented approach to the planning management of the protected area. The METT capacity scorecards completed during the PPG are showing some identifiable patterns of strengths and weaknesses. In general, issues relating to the protected area legal establishment, core zone boundary demarcation, regular workplan and resource inventory are undertaken in most protected areas to an acceptable standard (although significant gaps persist), that does support achievement of the conservation objectives.

22. Activities relating to research and monitoring, and enforcement of legal provisions, are less often undertaken and are also less effective. The Inspectorate for Control over Protection and use of Biodiversity and Protected Areas (Gosbioinspection) under the State Committee for Ecology and Environmental Protection, takes responsibility for regular monitoring over the implementation of national legislation in the field of protection of Flora and Fauna and efficiency of PA management by other institutions. Gosbioinspection has direct access to any PA regardless of the jurisdictional status of the particular PA. Inspectors may independently enter the PA territory to do their inspection work in the field. However, Gosbioinspection does not have full capacity to completely monitor all areas within their jurisdiction and ensure implementation of all biodiversity legislation.

Insufficient awareness among local communities and national and local governmental officials about LDN and integrated water-land management and insufficient capacities to participate in regional water negotiations

23. The survey conducted at the PPG showed that there is an insufficient level of awareness on land degradation issues, biodiversity and integrated water-land management. Although the majority of respondents including the local natural resource users have basic environmental knowledge (50-53%), the results show that there is little or no awareness on LDN, there is little technical knowledge and awareness on the benefits of Sustainable Land Management (SLM) measures and on water saving technologies (although generally the respondents have heard of drip irrigation). Broadly, the water users understand the importance of ensuring adequate water supply and timely releases to wetlands and lakes (60-72%) however there is a need to increase the knowledge of the water managers on the benefits of wetland ecosystems and the services they provide for the livelihoods of the local population and on the water requirements needed to maintain the ecological integrity of natural ecosystems.

24. Respondents have indicated the perceived barriers that need to be removed in order to improve regional cooperation and long term water management strategies, as follows: insufficient awareness and knowledge on water management and environmental issues (44% of respondents), limited capacities in water negotiations processes at regional level (22% of the respondents), ineffective data-sharing mechanisms (33%) and participatory and more inclusive dialogues with all interested actors (33%). Although there are several platforms for knowledge sharing and cooperation, sustained by donor funded projects, the regional cooperation is modest. This is only partially attributable to the nature of donor policies and projects; beyond that, the political context in the Aral Sea Basin limits the effectiveness and feasibility of international activities. Reluctance to cooperate, lack of political will and hierarchical decision-making cultures in the countries of the region are obstacles to inclusive and collaborative water management¹⁵.

¹⁴ NBSAP 2019-2028

¹⁵ The Aral Sea Basin "Water for Sustainable Development in Central Asia"

Theory of Change

25. Despite the planned reforms in the agricultural sector there are remaining barriers to addressing progressive land degradation and water scarcity. Without a fundamental change in the water management approach, and changes in the sectors that depend on irrigation, any intervention will hardly be meaningful enough to produce long-term effects. The Theory of Change was developed around an analysis of the interconnected land degradation/water scarcity/biodiversity decline and pathways to change at various levels. The proposed pathways will offer the necessary integrated approaches, innovative land restoration and pasture management techniques, knowledge and awareness that are necessary for removing existing barriers, thus building a significant cumulative effect towards the reduced agricultural land degradation through several drivers of change. The project's overall approach will account for climate change impacts and will allow the implementation of LDN compatible sustainable land management measures in the production landscapes; the rational regulation and allocation of water usage in the Lower Amudarya and Aral Sea Basin landscape and the necessary ecological flow to maintain lakes, wetland and riparian ecosystems.

26. Healthy ecosystems will ensure resilience of the region to climate and human threats, and the maintenance of ecosystem services for local communities. This approach enables a) maximum Global Environmental Benefits (GEB) as a result of GEF-supported investments b) application of lessons learned and good practices from implementation of past project experiences c) building upon firm foundations provided by key national baseline programmes with co-financing from partners, directly supporting project outcomes. The incremental value brought by the project consist in a new integrated water-land-biodiversity approach that links sustainable water management and improved sectoral production systems with the ecological pillars of the landscape: the lakes, wetlands and riparian corridors, addressing remaining barriers to current agricultural land degradation and destruction of key high value biodiversity habitats. The drivers of change are represented by: a new institutional coordination mechanisms for linking "water saving agriculture" with improved water releases to lakes, wetlands and riparian zones in LADAB landscape; demonstrated LDN compatible water-land management in the production landscapes around KBAs/IBAs in four targeted districts; strengthened technical knowledge of the local resource users about SLM/LDN and sustainable water management; strengthened capacities of PA staff and environmental inspectors for PAs management and legal enforcement; increased awareness on wetlands ecosystems services and improved skills on international water programming and negotiation. Several key assumptions have been considered:

27. Political will and Institutional coordination : The project will provide an essential increment to the knowledge base and research into the water use patterns and water availability for different water users in LADAB landscape; it will establish new/revised irrigation norms to account for predicted climate deficits; it will identify water requirements necessary to maintain the ecological integrity of lakes and wetlands in Amudarya delta. The project further provides an inter-institutional cooperation platform and a tool for sustainable water use management at LADAB landscape level, through the Integrated Water Management Framework (IWMF) that provides assessment-based Guidelines and Institutional arrangements for LDN compatible climate smart "water saving agriculture" on 1,050,910 ha irrigated areas (Output 1.2). Then, the project will further develop 4 district-level Integrated Climate Sensitive Sustainable Water Management Plans on 112,180 ha to demonstrate scalable good practices in irrigated agriculture (Output 1.2). A much bigger contribution both in terms of finance, institutional capacity and coordination is expected from the Government (i.e. the Ministry of Water Resources and Ministry of Agriculture). The assumption is that political will exists to reform the water sector, reduce water waste and land salinization. It is expected that Government interest exists, to strengthen inter-institutional cooperation among multiple water users and implement new climate sensitive irrigation norms and provisions for the guaranteed minimum ecological flow. It is expected that the project-recommended amendments to the legal and policy framework for a more adequate distribution among the most vulnerable sectors to climate change (i.e. water sector, agriculture, and natural ecosystems) will be officially approved and implemented.

28. Commitment towards LDN: It is assumed and expected that the Government will maintain its efforts towards attaining land degradation neutrality, and will endorse, finance and replicate the LDN compatible land use planning tools developed by the project in the demonstration areas (Output 2.1 and Output 2.2.).

29. Interest and participation: Another assumption is that there will be sufficient interests and commitment from the local farmers and producers to take up biodiversity friendly agricultural practices in production landscapes (Outputs 2.3, 2.4, 2.5, 3.2.3.) It is assumed that incentives and economic benefits will be attractive enough for farmers to implement sustainable production practices (Output 3.2.3);

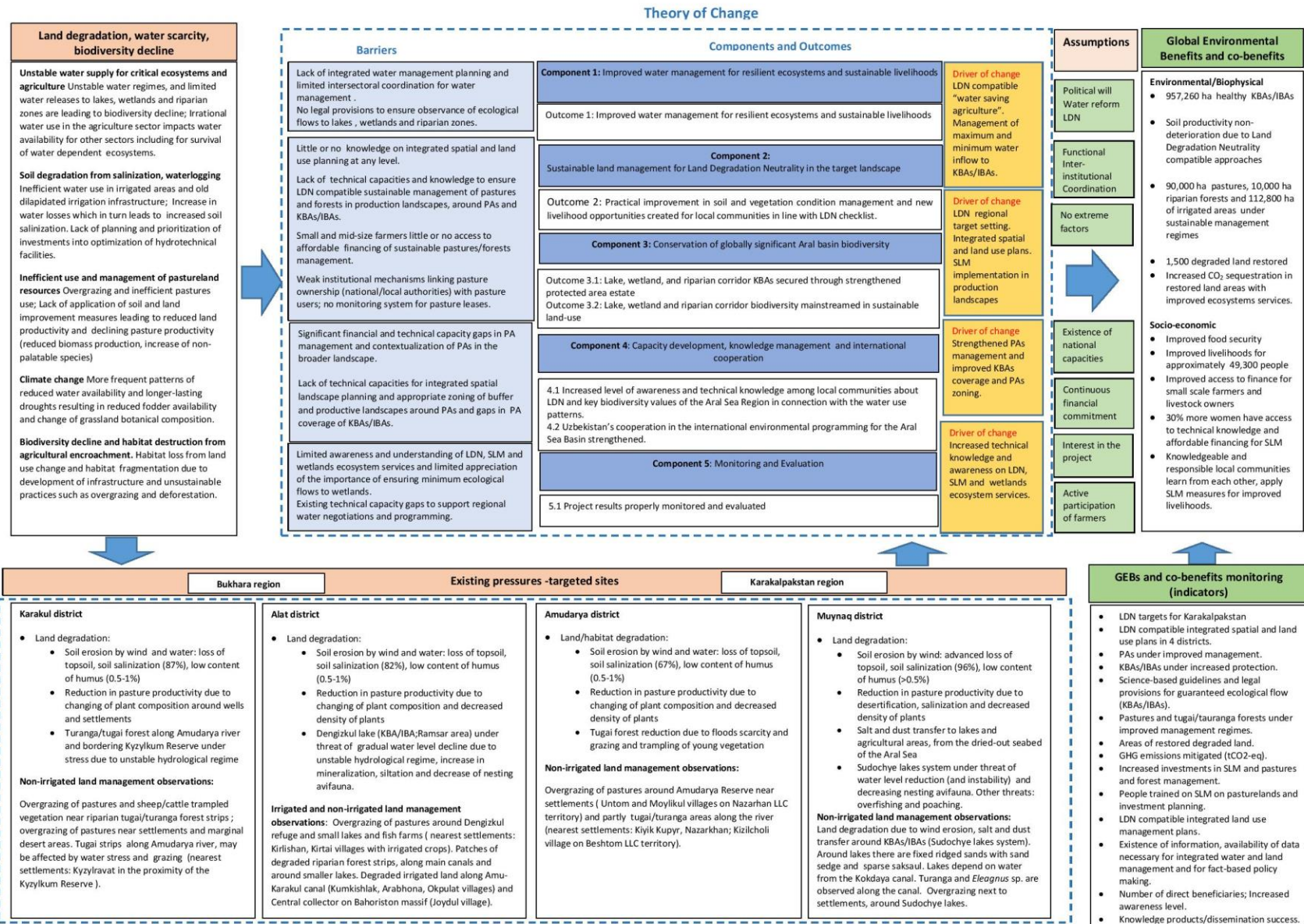
30. Institutional capacities: The government representatives welcome the proposals for a better account of the biodiversity conservation through integrated spatial landscape planning, and an enhanced integration of the PAs and KBAs/IBAs into surrounding landscapes. It is assumed that the national institutions will have the capacity for effective biodiversity mainstreaming through integrated spatial planning in buffer and production areas (Outputs 1.2, 2.1, 2.2, and 3.1.1). It is expected that the Government continues supporting the agro-environmental incentive policies and sustainable agricultural practices.

31. Co-financing: It is assumed that overall, project stakeholders maintains commitment and provides co-financing.

32. Outside extreme factors: The project implementation is not affected by major outside factors such as drastic change in policy priorities, major institutional reforms, deep and long-lasting economic recessions etc. and that KBAs/IBAs are not affected by extreme climatic events and disasters such as significant fires and more severe droughts.

33. Risks that may hamper project progress towards its development objective are associated with the lack of political will to continue needed reforms in the water sector and land governance. The project calls for a holistic approach to intervention planning and involves multi-sectoral and multi-level governance and ownership. Conflicting interest of different governmental partners may hamper meaningful inter-institutional coordination and reconciliation needed for a more balanced water distribution among multiple water users (e.g. irrigation, fishery, natural ecosystems). In addition, national partners might lack capacities and integrated vision to deliver the proposed outcomes and pave the way towards the achievement of the declared objective. Being in full ownership and implementation by the Government, the project will be highly affected by the institutional risks associated with any change of the governmental priorities.

34. The Theory of Change is represented below:



III. RESULTS AND PARTNERSHIPS

3.1 Project description and expected results

35. The Project objective is to enhance the resilience of the ecosystems and livelihoods in Lower Amudarya and Aral Sea Basin (LADAB) through LDN compatible integrated land-water management in the productive landscapes around Protected Areas, KBAs/IBAs. The five components proposed by this project have been designed within available GEF and co-financing framework to address the corresponding drivers of land, and water degradation, which are directly linked to the diminishment and loss of lake, wetland and riparian biodiversity in this arid landscape. The conservation and sustainable development of biodiversity can be considered as the main way for improving the ecological situation in the region. Ensuring the integrity of a chain of watered lands along the Aral coastline as buffer zones is an important measure for combating salt and dust transfer, to prevent desertification, loss of rangelands and maintaining biodiversity¹⁶.

Component 1 Coordinated water management as basis for LDN and conservation

36. This project component will address unrationalized and unsustainable use of water resources, the negative impacts of which are exacerbated from climate change risks. The project will develop a collaborative framework for efficient water management involving multi-stakeholders engagement, considering agriculture needs but also the necessary ecological flows needed for the preservation of lakes wetlands and riparian zones in Amudarya basin and delta.

Outcome 1 Improved water management for resilient ecosystems and sustainable livelihoods: Sustainable water management demonstrated on 112,180 ha of irrigated agricultural land, resulting in reduced land degradation; Water levels in 957,260 ha of Key Biodiversity Areas sufficient to maintain extent of current ecosystem and ensure natural restoration. The project will be supported by specialist EIA/safeguards company (or experts) to conduct targeted assessments in the project areas and devise management measures for mitigation of potential social and environmental risks and impacts, that will be included in the sustainable water management planning under this Outcome (as per Annex 6 SESP and Annex 30 ESMF).

Output 1.1. Revised norms of volume and timing of water supply through key hydrotechnical facilities developed and adopted : (i) Multi-stakeholder Task Force and Multi-stakeholders Committee set up with presence of relevant ministries and water users; (ii) Ecologically-justified science based norms of water volumes and supply timing developed for key areas important for agriculture and KBAs; (iii) New “Concept on Water Release to Lakes, Wetlands and Riparian Zones” developed (iv) Finalized agreement between the State Committee on Ecology and Environmental Protection and the Ministry of Water resources drafted and formally approved, and norms of volumes and timing of water supply consulted and adopted.

37. The project’s work under this output will be focused on a coordinated data collection, research and identification of the necessary water volumes requirements for lakes, wetlands and riparian zones in LADAB landscapes. The project will establish a Multi-Stakeholder Water Management Task Force (to include project experts and technical personnel of partner institutions effectively working on the technical assessments) and a Multi-Stakeholder Committee - which will include representatives of line ministries, the International Fund for Saving the Aral Sea (IFAS), Amudarya Basin Water Organization (BWO), the relevant Basin Irrigation System Authorities (BISAs): Amu-Bukhara BISA; the Left-bank Amudarya BISA and Nukus Hydro unit (Niznedaryinskiy department under BWO Amudarya), Water Users Associations (WUAs). The Multi-Stakeholder Committee is expected to facilitate inter-institutional coordination and leverage the needed political will necessary for the full achievement of this outcome.

38. The Multi-Stakeholder Water Management Task Force will include a project-supported multi-disciplinary expert team to conduct research and analysis. Members of the Technical Advisory Groups (TAG) will likely take part into the Task Force. Based on comprehensive analysis and calculations, the Task Force will develop a new Concept on Water Release to Lakes, Wetlands and Riparian Zones in Amudarya basin (i.e. Guidelines) and subsequent legal amendments to the Water Code to mainstream provisions for guaranteed minimum ecological flows to lakes, wetlands and riparian zones, as well as targeted

¹⁶ IFAS (International Fund for Saving the Aral Sea)

investments into hydrotechnical facilities modernizations and legal provisions related to mandatory water metering and adjustments on water pricing.

a. Norms and volume of water supply for lakes and wetlands

39. The management of transboundary water resources of Amudarya river in the project targeted area is carried out by Nukus hydro unit department, under the Basin Water Management Organization (BWO) "Amudarya". It operates the Takhiatash hydroelectrical facility, which regulates the water inflow from Amudarya river to lakes and wetlands. Water permanence is crucial for preservation and restoration of water dependent ecosystems (lakes, wetlands and riparian zones) and biodiversity. The water flow in the left and right bank collection systems is mainly determined by the river runoff and the water supply for irrigation needs. The necessary ecological flow for the Amudarya delta was assessed by the IFAS agency and considered to be approximately 5.29 km³ per year. Another estimation of the ecological flow was done by the World Bank Project Aral Sea Basin (2004-2008), which came close, at 6 km³ per year. The Interstate agreements guarantee a minimum flow to the northern delta of 3.2 km³/year (100 m³/s) and 2 km³/year for ecological and fish farming needs however in reality these norms are not observed nor enforced¹⁷. The water availability will continue to diminish especially under the climate change impact. The total water shortage in lower reaches of Amudarya is estimated to reach 0.88–1.55 km³ during 2020-2055. The water supply shortage for the Mid- and Lower Amudarya system of lakes and wetlands will reach 1.06 - 2.74 km³, which will translate in the likely disappearance of many of today's vulnerable lakes, wetlands and riparian habitats.

40. Under this output, the project will conduct a situation analysis including climate risk assessments, to identify the norms of volume of water and timing of releases for the preservation of the ecological integrity of the lakes and wetlands in Amudarya delta, accounting for the climate change predicted water shortages. The provision of sufficient level of water to the lakes and wetlands of the Amudarya delta is regulated by the "Procedure for the establishment of designated water areas and protective sanitary zones of water bodies in Uzbekistan" (Cabinet of Ministers no 981/11 December 2019). The provision establishes the methodology for calculating the necessary water level for natural ecosystems, however the climate change impact and predicted water shortages will need to be taken into consideration and water quotas will need to be modified accordingly. The wetlands ecosystems could be restored in a few years if the satisfactory water supply and biodiversity protection is established.

41. The following activities are envisaged to identify the minimum water level requirements in the lakes/wetlands and solutions for the optimization of water allocations among different sectors (to be implemented in coordination with the assessments under Output 1.2):

- Comprehensive assessments: The Multi-Stakeholder Water Management Task Force will first agree on the methodology for assessment of the minimum water level requirements of the lakes/water dependent bodies and wetlands and riparian zones to remain viable. The methodology will take into consideration the morphological and hydrological features of the water bodies, water area surfaces, water losses due to evapotranspiration, annual water volume flowing into the lakes, timing of water releases downstream from Takhiatash and Nurek reservoir and impact on the water ecosystems and adjacent wetlands taking into account the climate change induced risks and vulnerabilities. The preliminary data analysis conducted at PPG stage, related to the existing estimations of the volumes of water for most of the lakes/KBAs in the project area is presented under Annex 22 Target Landscape Profile (Table 2).
- In coordination with the work under Output 1.2, an analysis of Hydroclimatic scenarios and water economic models: Several water supply scenarios for irrigated agriculture and biodiversity will be analyzed to establish optimized water allocations among multiple users (the PPG expert recommendation is the use of World Bank agreed BEAM)¹⁸ ;
- Based on the results of these assessments and established measures to optimize water allocations and timing of releases among sectors (in coordination with the work under Output 1.2), the new Concept on Water Release to

¹⁷ Aral Sea Wetland Restoration Strategy/ World Bank and Government of the Netherlands

"Incorporating environmental flows into water management in the Amudarya river delta"(2003-2007) <https://www.arcgis.com/apps/MapJournal/index.html?appid=a64d4f5c870f44729858a639cb06928b>

¹⁸ <https://ui.adsabs.harvard.edu/abs/2013EGUGA..15.8608R/abstract> and <https://www.oecd.org/countries/kazakhstan/strengthening-multi-purpose-water-infrastructure-in-shardara-mpwi-kazakhstan-9789264289628-en.htm>

Lakes Wetlands and Riparian Zones (Guidelines) will be developed and submitted to public consultations; The new Concept will present science-based recommendations for a revised water allocation among sectors (irrigation, fishery, natural ecosystems); implementation of efficient water use measures in agriculture to reduce wastage and generate water savings; and solutions for directing these water saving towards natural ecosystems to guarantee the minimum ecological flows especially during dry years;

- Inter-institutional agreements between the State Committee on Ecology and Ministry of Water Resources: will be drafted and formally approved, in order to establish an appropriate institutional framework and agreement over the necessary water for agriculture sectors and the required ecological flow and adequate environmental releases of water to prevent desiccation of water bodies, in the lower reaches of Amudarya delta (e.g. Akpetki, Mesdurechye, Akdarya-Kazakhdarya, Sudochoye lakes are significantly impacted during droughts);
- Legal and regulatory amendments to the existing legislation and relevant draft bylaws under the new Water Code will be further identified and developed to provide for a new effective mechanism that will ensure the necessary ecological flow to the Amudarya delta natural ecosystems. The Multi-Stakeholder Committee will coordinate the drafting, submission for approval and advocacy. The legal amendments will be submitted for formal approval, with the involvement of Legislative Chamber of Oliy Majlis (Paliament).

Output 1.2 Integrated Water Management Framework designed for LADAB landscape and 4 LDN-compatible Gender Sensitive Climate-Smart Integrated Water Management designed in 4 priority districts based on Output 1.1 and used as input to Output 2.1

42. The project will first develop a broader Integrated Management framework covering the entire irrigated area of the LADAB landscape totaling approximately 1,050,910 ha (aligned with IRWM principles). Next, the project will develop four LDN compatible gender sensitive and climate smart *Integrated Water Management Plans* at the target districts level (Alat and Karakul in Bukhara region and Amudarya and Moynaq in Karakalpakstan region) covering 112,180 ha irrigated area.

b. Irrigation norms and water use in agriculture

43. The irrigation norms implemented in Uzbekistan were established based on rigorous research and scientific data and have been revised multiple times by the government and international organizations. According to the PPG observations, the problem associated with the irrigation norms lies on the enforcement side i.e. these norms are not properly implemented at farm level. Irrigation norms depend, inter alia, on the soil thickness and crop types. During the growing season, the irrigation norms are supplied in accordance with the changes and water needs of the cultivated crops. A continuous supply of water, consistent with the irrigation requirements, that does not lead to water logging is possible only through an automated drip technology and subsoil irrigation systems. However, the existing irrigation methods are old and allow only for intermittent irrigation, which most of the time do not comply with the norms associated with irrigation depth and timing, therefore water is used irrationally and large areas are waterlogged leading to increased soil salinization. Currently, approximately 80% of irrigated land is under various degrees of salinization.

44. The Ministry of Water Resources data show that total irrigation requirements for the irrigated areas in the four targeted districts is 779,8 million m³ but due to water losses, the total water withdrawal is higher, up to approximately 1,295.6 million m³. The old and dilapidated irrigation system and lack of water management and non-observance of irrigation norms accounts for more than 41% of water losses. Soil humus measured as soil bonitet score (soil quality index) vary from 21-80 points, with an average score 51 for Alat and Karakul (Bukhara region), 48 for Amudarya and 33 for Moynaq (Karakalpakstan region). The irrigation norms will be revised in view of climate change induced water deficits. The analysis of the worst-case scenario¹⁹ of Nurek hydrotechnical facility and total inflow through Takiatash dam for 2020-2055, shows significant water deficits, both in the case of water releases for Amudarya delta system of lakes and for the irrigation sector (0.17-0.31 km³ in Bukhara and Navoi provinces; 0.2-0.35 km³ in Khorezm province and 0.29-0.69 km³ in Karakalpakstan province). The main crop losses due to increasing water deficits are estimated to go up to approximately 13-23% in Amudarya River Basin, because of climate change only (increased evaporation and reduced flow), and further decrease in grain and vegetable crops is likely.

45. The project will build on the knowledge generated by other donor-led initiatives and approved basin planning methodologies, such as the Basin Planning Handbook developed within the framework of project Support of Water

¹⁹ Based on data from publications of Scientific-information center of the Interstate Commission for Water Coordination 2018 - <http://www.cawater-info.net/projects/peer-amudarya/>

Management and Basin organizations in Central Asia (GIZ/CAREC)²⁰. The IWRM based Integrated Water Management Framework will be aligned with the water management system that serves the entire LADAB landscape, operating according to the hydrographic boundaries, covering all canals collectors as well as the hydrotechnical facilities that command the water releases in LADAB area. According to the current water legislation, there are 13 Basin Irrigation System Administrations (BISAs) which largely coincide with the administrative territorial boundaries; however, the water supply systems follows the hydrographic boundaries, hence the area estimated to be covered by the *Integrated Water Management Framework* is broader than envisaged at the PIF stage (i.e. at the PIF stage, it was assumed that the water management planning will cover only the pilot districts) and stretches over the three regions of LADAB landscape. At PPG stage the estimations have shown that only by applying sustainable irrigation practices to the entire LADAB landscape would be possible to obtain sufficient water savings that may cover minimum ecological flows for lower Amudarya lakes and wetlands. The main water bodies and canals collectors as well as the total water requirements are shown in *Annex 22: Target Landscape profile*.

46. The envisaged steps for developing the Integrated Water Management Framework covering 1,050,910 ha of irrigated areas in LADAB landscape, will include:

- **Problem assessment:** Will include governance and institutional analysis of the institutions involved in water management sector and drafting recommendations for harmonized, inclusive and tiered Integrated Water Management Resources (IWRM) based water governance (if necessary, corresponding legal amendments for promoting IWRM principles in the water sector will be drafted). Then, working with the Ministry of Water Resources and its irrigation meliorative expeditions, the project will collect and analyze data on the current water supply patterns and water use among different sectors, current needs of agriculture sector and volumes and timing of water releases, actual condition of collector-drainage network and soil salinization on irrigated lands in the LADAB targeted area (1,050,910 ha irrigated agricultural land). Together with the Ministry of Water Resources, ABISA, Amu-Bukhara BISA and with Nukus hydro unit, the project will collect data on the state of the hydro unit networks (hydrotechnical facilities) and irrigation network in the project targeted LADAB area and Amudarya river i.e. from Tuyamuyun hydrotechnical facility to Mezdurechensk reservoir, and timing of water releases. The problems will be assessed including vulnerability to predicted climate induced water deficits, and the extent of impacts will be quantified. This phase will complete the Baseline analysis, and the results will be disseminated to different stakeholders as widely as possible to ensure a critical feedback to the registered problems. The problem assessment will be conducted in coordination with the experts working under Output 1.1.
- **Identification of solutions:** Based on the problem assessment, the main objectives and practical recommended actions will be identified in order to promote/implement sustainable, climate smart efficient irrigated agriculture, with revised irrigation norms, that would generate water savings, which should be redistributed to natural ecosystems. The Task Force will facilitate consultation with the main stakeholders, with national and regional water management representatives. The measures will include also potential economic incentives for water saving at farm level. The project will support development of science-based recommendation for optimizing irrigation requirements and timing that accounts for climate change at LADAB landscape level.
- **Social and Environmental safeguards:** a SESA approach will be applied to the development of the Integrated Water Management Framework, such that potential social and environmental downstream impacts arising from the development of subsequent (i) guidelines on revised irrigation norms, (ii) Integrated Water Management Plans at district level, (iii) policy directions, are considered as an explicit part of plans/policy/guidelines development. This will encompass potential climate change risks on water allocation among multiple water users including potential safety risks water users and potential limitation on livelihoods. The project will leverage stakeholders' engagement (as per the Stakeholder Engagement Plan) with the support from the Multi-Stakeholder Committee and representatives of line ministries, the International Fund for Saving the Aral Sea (IFAS), Amudarya Basin Water Organization (BWO), the relevant Basin Irrigation System Authorities (BISAs), Water Users Associations (WUAs). The Multi-Stakeholder Committee's involvement will be key to the successful inter-institutional coordination (please see the ESMF Annex 30).
- **Consensus** will be sought on the revised norms and allocations to agriculture sectors and the required water releases that guarantee the minimum ecological flows to lakes and wetlands and riparian ecosystems under the predicted climate induced deficits and on the adequate management measures necessary to optimise the minimum and maximum flow of river discharge to deltaic ecosystems.(in coordination with work under Output 1.1).

²⁰ http://www.cawater-info.net/bk/water_law/pdf/handbook-basin-planning-en.pdf

- Distribution of institutional responsibilities related to the solutions proposed, identification of actions and costs, and setting key monitoring indicators. Funding sources will be identified, including payment for ecosystem services.
- Recommendations for Optimization of Hydrotechnical Facilities, that serve the LADAB area. The envisage assessment will aim at assessing the operations of the main hydrotechnical facilities²¹ and providing recommendations streamline the government’s planned investments into modernization that would allow for optimization of water releases. The government current expenditures on the maintenance and repairs works of the main hydrotechnical facilities in Khorezm and Karakalpakstan regions represents more than \$10 million annually. The hydrotechnical facilities along the key rivers (e.g. regulated sluices, reservoirs, artificial ponds) have their own regimes of operation, i.e. at every prescribed moment in time they contain or discharge a certain volume of water for a certain purpose. One of the key problems is that their current operation does not consider ecosystem needs and is not suited for “water-saving” agriculture that this project strives to promote as an alternative to cotton production. It is important therefore, to keep this activity, as otherwise it would be not possible to establish optimal water supply for biodiversity.
- Drafting the Integrated Water Management Framework (IWMF) for LADAB landscape: drafting the full text of the Integrated Water Management Framework will be aligned with the basin planning principles and will include comprehensive stakeholders consultations. The Integrated Water Management Framework will include : (i) Recommendations for revised norms and volumes and timing of water releases among multiple users, including institutional measures for accommodating different agricultural needs that takes into account the minimum ecological flows and adequate level of water releases for natural ecosystems ecological integrity in lower Amudarya delta (prepared under Output 1.1); (ii) Investment Plan for the maintenance and modernization of hydrotechnical facilities; (iii) the new Concept for the guaranteed ecological flow to lower Amudarya delta (prepared under Output 1.1.) and (iv) Recommendations on SLM measures to be applied on irrigated lands in order to avoid, and where not possible, to reduce land degradation, land salinization and water wastage and improve soil productivity. Reference will be made to the project supported Integrated Water Management Plans in 4 pilot districts an upscaling strategy will be included in the IWMF.
- Final Stakeholders validation (including consultations with officials/ water managers in other countries for sharing of good practices and harmonization of water management measures in Amudarya River middle and lower reaches) will be facilitated by IFAS.
- Official approval of the Integrated Water Management Framework by the relevant authorities i.e. the Ministry of Water Resources, Ministry of Agriculture, State Committee on Ecology and Environmental Protection.

c. Development of 4 LDN compatible climate smart Integrated Water Management Plans

47. The project will further develop four LDN compatible gender sensitive and climate smart *Integrated Water Management Plans* at the target districts level (Alat and Karakul in Bukhara region and Amudarya and Moynaq in Karakalpakstan region) covering 112,180 ha irrigated agricultural land .

48. The project will mobilize key partnerships to demonstrate sustainable water management in the targeted districts, to pilot water saving measures and LDN compatible agricultural practices to improve soil conditions in 112,180 ha of irrigated areas. The project will work in partnership with the Ministry of Water Resources, Ministry of Agriculture, Amu-Bukhara Irrigation System Authority (ABISA) which is responsible for water releases for Bukhara province; the Left Bank Amudarya BISA- responsible for water releases in Khorezm region, Nukus Hydro unit Division (renamed Nizhnedarya) in Nukus, which operates the Takiatash Dam and water releases to Amudarya delta and with the relevant Water Users Association (WUAs) and local community representatives.

49. The district level Integrated LDN compatible climate smart Water Management Plans will encompass practical actions expected to lead to a gradual reduction of salinized land of about 1% per year in targeted irrigated areas, aligned with national target under the new Water Concept 2030. In addition, it is envisaged that a 10% decrease of water losses through water saving measures will be achieved and an increase in humus content as measured by soil bonitet scores²², through LDN compatible SLM measures and water saving technologies. (*recommended measures under Annex 24*). These LDN compatible measures will serve as inputs into Output 2.1 (setting regional LDN targets in Karakalpakstan region).

²¹ The hydrotechnical facilities in the target areas, subject to assessments, will not include dams.

²²According to the National LDN Report the “Bonitet” score is understood as a Soil Quality Index, expressed in classes, relative to the soil with the highest potential fertility, the point of which is usually assumed to be 100% (LDN National Report, page6)

50. The following steps are proposed for the development of 4 LDN compatible, climate smart Integrated Water Management Plans for 112,180 ha irrigated areas in pilot districts :

- Collection of relevant data and information on the irrigation requirements, irrigation practice at farm level, volumes and timing of water releases for irrigation in the four districts taking into account climate change impact (112,180 ha of irrigated areas).
- Assessment of the main problems: e.g growing demand of irrigation water; water use patterns and water wastage; water needs among different sectors and reconciliation; gender perspective- the differentiated water use and needs among men and women; water deficits and impact on deltaic ecosystems; water deficits under predicted climate change scenarios and highlighted vulnerability towards water scarcity of women, youth and other marginalized communities or impoverished families among a community.
- Assessment of land degradation degrees and rates in the irrigated agricultural land in the 4 targeted districts and designing of LDN compatible sustainable farming measures on irrigated areas, including crop rotation and intercropping, fertilizers application, taking into account soil salinization, water needs for soil leaching, improvement of irrigation systems and implementation of climate smart water saving technologies (coordinated with the LDN work within Output 2.1 and 2.2).
- Drafting the LDN compatible climate smart Integrated Sustainable Water Management Plans for the targeted districts, including the LDN response hierarchy in the planning; each management plans will entail SLM measures (that will be aligned with the prevent-reduce-restore hierarchy) that will improve water use (decrease water wastage with 10%) and soil condition thus expected to contribute to reducing salinization (approximately 1% per year reduction of saline land) , improving soil productivity (increasing soil humus content with approximately 2%) and overall contributing to achieving land degradation neutrality. The identification and application of SLM measures in the irrigated fields will be coordinated with the integrated land use planning under Output 2.2 and LDN target setting in Karakalpakstan under Output 2.1.
- Application of a targeted assessments will be done during the the development of the 4 LDN compatible climate smart Integrated Sustainable Water Management Plans in the priority districts, such will include feasibility/risk assessments (including climate related risks and vulnerabilities) and provisions for site-specific screening in the targeted areas, in order to identify, prevent and mitigate potential economic displacement and negative impact on the local communities and critical habitats. If the risk of economic displacement would be confirmed via site-specific screening, then such risk will be managed by integrating all elements of a Livelihood Action Plan into the respective plan for the given site (as per SESP, Annex 6 and ESMF Annex 30).
- Approval and implementation of the four district level Water Management Plans by the Ministry of Water Resources and district level authorities. The four Integrated district level Water Management Plans will be part of the Integrated Water Management Framework (as they will demonstrate effective LDN compatible integrated water management planning , to be replicated in other districts of the LADAB landscape). The project will use the GEF resources to develop the plans. A more significant contribution is expected to be provided by the Government for the implementation of these plans at district level.

51. Many of the sustainable farming measures that could be applied in the irrigated agricultural land have been already tested by various previous projects in Uzbekistan with good results by different agencies (FAO, WB); a few measures are suggested in Annex 24: *SLM Measures proposed in the targeted sites*. A series of awareness and training seminars will be implemented in order to develop a critical mass of understanding and technical knowledge on LDN and how applying LDN concept and efficient/climate smart irrigation, can help saving water and managing water resources more efficiently (implemented in coordination with Output 4.1). The project will support local farmers to implement some of the measures included in the Integrated Water Management Plans, e.g. water saving technologies and farming practices that does not deplete soil condition and therefore contributes to achieving LDN, through a micro-scheme support for farmers (further described under Output 3.2.3).

Component 2 Sustainable land management for Land Degradation Neutrality in the target landscape

52. This component aims at sustainable land management practices in production landscapes surrounding lakes, wetland and riparian ecosystems. The intervention aligns with the LDN principles and will focus on the buffer zones of selected sites, in close collaboration with local governments and neighboring communities with the aim of reducing land degradation and pressure on PAs and KBAs/IBAs. The project will use GEF resources to support integrated land use planning with local communities participation, aligned with LDN principles and will promote sustainable land management (SLM) and biodiversity friendly agricultural practices. Furthermore, farms will be incentivized to shift towards sustainable agricultural

practices within the framework of Output 3.2.3, which aims at implementing a micro-scheme support for livelihoods. The proposed micro-scheme will be implemented in partnership with the Council of Farmers, working with economically active small and midsize farmers, to jumpstart interest in investing in sustainable water management, water saving on irrigated land, sustainable pastures and forest management in the targeted area. The project will be supported by specialist EIA/safeguards company (or experts) to conduct targeted assessments in the project areas and devise management measures for mitigation of potential social and environmental risks and impacts, that will be included in the integrated land use plans; sustainable pastures and forests use management plans, envisaged under this Outcome (as per Annex 6 SESP and Annex 30 ESMF).

Outcome 2.1 Practical improvement in soil and vegetation condition management and new livelihood opportunities created for local communities in line with LDN checklist: 90,000 ha of pasture and 10,000 ha of tugai and turanga forests managed sustainably with communities in 4 priority districts 1,500 ha of degraded land restored.

53. In order to prevent, mitigate and restore land degradation, the project will deploy multi-stakeholders participatory approaches to set regional LDN targets in Karakalpakstan and develop long-term spatial and land use management plans at district level in the targeted 4 districts in Bukhara and Karakalpakstan regions.

Output 2.1. LDN progress assessment for Karakalpakstan completed; regional LDN targets confirmed, future actions developed, and monitoring systems proposed; LDN action plan updated.

54. This Output will build on the knowledge generated during the National LDN Target Setting Programme and will identify, test and calibrate different LDN metrics in Karakalpakstan region. With the project support, baseline values for the three global LDN indicators: Soil Organic Carbon (SOC), Net Primary Land Productivity (NPP) and Land Cover and Land Cover Change (LCC) will be validated for Karakalpakstan region, progress assessed and targets identified.

55. Based on the LDN National Target Setting recommendations, the LDN global indicators can be complemented by other indicators for example: Normalised Difference Vegetation Index (NDVI), Land Salinity Index (mainly for the irrigated areas) and a comprehensive indicator on exposure to desertification, land degradation and drought (DLDD)- average for 10 years period. Uzbekistan conducts monitoring of soil humus content on agricultural lands in 260 points located in different landscapes according to GOST methodology "Soil. Methods for laboratory determination of organic substance content". As confirmed by the National LDN Target Setting exercise (2019), it is possible to recalculate the humus content according to soil carbon in the targeted areas. The analysis of the global data base values of the Soil Organic Carbon for the period 2000-2015 has indicated a 1% increase in land degradation at country level that was counterbalanced with a 1% improvement of soil condition. The global Land Productivity indicator showed that 80% of the land is in a stable state, 15% of the land condition is progressively deteriorating while 5% of the land is improving. The Land Cover Indicator requires significant additional research as the national data shows a 2.3-fold increase in forested areas and a reduction of pastureland (mostly due to reforestation works) whereas the global data does not indicate these changes. Reason for that being that the forested areas did not form a full-grown forest yet.²³

56. The PPG analysis of the national data compiled annually by the forestry enterprises indicate a much higher increase rate of the vegetation cover due to increasing afforestation of the drained seabed of the Aral Sea (not on pastureland) compared to the baseline year 2015, which is likely to continue on an upward trend due to the national afforestation programmes approved by the Decree of President in 2019. According to the national estimates, the soil organic carbon has increased from 4,597,599 tonnes in 2010 to 8,809,113 tonnes in 2020 and it is expected to increase up to 14,450,000 tonnes by 2025. Vegetation cover shows the same upward trend, due to the afforestation of the drained Aral Sea seabed (stabilising mobile sand) especially in Moynaq district. Soil organic carbon increases slowly since most of the forests are young, and the accumulation of organic carbon will gradually increase in time. Baseline values for soil bonitet and soil salinity index have been analysed from data provided by the Soil Science and Agrochemistry Institute (under the State Committee for Land Resources, Geodesy, Cartography and State Cadastre). The results show a decrease of soil fertility in Karakalpakstan from the Index value 44 (Bonitet score measured during 1991-1997) to 41 (data from 2005), with a higher average for Amudarya (48) and lowest in Moynaq district (33) in the area of the drained bed of the Aral Sea. (*Annex 26: Soil Organic Carbon and Vegetation Cover*). Land salinity is widespread in Amudarya on 81.6% of lands whereas 100% of land in Moynaq is under

²³ https://knowledge.unccd.int/sites/default/files/ldn_targets/2019-04/Uzbekistan%20LDN%20TSP%20Country%20Report_0.pdf

different degrees of salinization. During the National LDN Target Setting the salinity assessment was based on Normalized Difference Snow Index NDSI (mainly for irrigated areas) concluding that at the country level, 37% of land is non-saline or slightly saline, and 4% are highly saline (Karakalpakstan, Bukhara and Navoi) however these conclusions will need additional in-situ soil assessments.

57. The project's work under Output 2.1 will be limited to the geographic boundaries of Karakalpakstan region LDN sub-national targets are proposed to be established through several stages (aligned with the 10 steps recommended by the UNCCD Target Setting Programme):

58. Setting the baseline: will include 1) *Stakeholders engagement*: This phase will entail the identification of all the relevant stakeholders at regional and districts level in Karakalpakstan and the creation of an "LDN Stakeholder Working Group" followed by a series of round table meetings and multi-stakeholders engagements. An initial information and education about what Land Degradation Neutrality stands for, will be organised by the project (LDN Inception Workshop) that will explain and clarify the *no-net-loss* approach. Dedicated LDN training events will follow (further detailed under Component 4). The LDN Stakeholder Working Group (LDN SWG) will coordinate its work with the Integrated Spatial and Land Use Planning District Committee (ISLUPDC), to be set-up under Output 2.2. The LDN SWG and ISLUPDC will consist of local divisions of State Committee on Land Resources, Geodesy and Cadastre (Goskomzemgeodezkadastra), Ministry of Agriculture, Ministry of Water Resources, State Committee on Ecology, district authorities, local communities' representatives, farmers (daikhan farms, individual farmers), women groups. Stakeholders will be mobilised and involved in the LDN baseline validation and data processing, analysis of the national and sub-national drivers of land degradation and analysis of potential counterbalancing measures on the ground and finally identification of LDN targets and associated measures, validation and enforcement of commitments and establishment of potential LDN partnerships. 2) *Setting the land degradation neutrality baseline*: this is a stock taking exercise of the current land-based capital, considering a 2015 baseline year. The project experts will support the identification and validation, ground-truthing, of the main LDN indicators at regional level, for Karakalpakstan (encompassing the three global LDN indicators and several relevant complementary indicators).

59. Establishing a mechanism for neutrality: will include 3) *Assessing land degradation*: this phase will include a retrospective assessment of land degradation and desertification trends, in order to provide evidence for setting realistic LDN targets, and for making decisions about counterbalancing measures and prioritizing efforts in areas with progressive degradation. The three LDN indicators will be complemented, as needed, with other indicators monitored in the country, validated for Karakalpakstan region, estimating for each indicator the average value over 10-15-year assessment period prior to the current condition. (i.e. 2000-2015). Several land degradations "hot spots" will be identified and restoration actions and investments prioritized to address these areas (in coordination with Output 2.4). 4) *Identifying drivers of land degradation* will consist in the analysis of the land degradation in different sampled areas in order to assess the dynamics of degradation across Karakalpakstan region. Direct local drivers and other underlying (national level) drivers will be identified and analyzed (including inadequacies in the national legal framework) as well as socio-political circumstances in order to contextualize the problems. 5) *Defining regional voluntary LDN targets*: for the three main LDN indicators complemented with additional indicators. In addition, with the support of the International LDN Expert, the project will facilitate embedding LDN response hierarchy at district level planning (under Output 2.2). Moreover, the SLM measures applied in the irrigated areas within the Water management Plans (Output 1.2) will be considered in the process of setting LDN targets for Karakalpakstan region, the project's work under these two outputs will be coordinated and integrated.

60. LDN Planning and Implementation will include 6) *Mainstreaming LDN in land use planning*: This phase will establish the LDN compatible land use planning approaches in order to achieve the LDN targets at the region level. In addition, the project will demonstrate effective integrated spatial and land use planning in two districts of Karakalpakstan region (Amudarya and Moynaq under Output 2.2) using LDN as a planning principle, that will provide the evidence base for the land use decisions according to the response hierarchy (prevent-reduce-restore) with focus on prevention first. The LDN compatible Spatial and Land Use Plans will be integrated with the existing local land use strategies and will be formally approved by district authorities (khokimiyats). 7) *Measures to achieve LDN targets*: this step will identify the specific measures that need to be implemented on the ground, consisting of a whole range of feasible Sustainable Land Management (SLM) interventions. Land use decisions will be monitored and their cumulative impacts will be estimated so that negative impacts will be counterbalanced by reversing land degradation on the same land type elsewhere.

61. Enable and monitor neutrality will include: 8) *Facilitating actions towards land degradation neutrality*: will include planning for dissemination of LDN benefits and encouraging LDN investments, using LDN as a mean to scale in and scale out SLM measures. The project will coordinate with GEF FAO Project “ Sustainable Forest and Rangelands Management in the Dryland Ecosystems of Uzbekistan” which will strengthen the enabling environment for LDN implementation and will identify LDN coordination and monitoring mechanisms, reporting progress from sub-national level and coordination with the National Level LDN Action Plan that will be developed by the FAO project. 9) *Monitoring LDN progress*: with the project’s support, an LDN monitoring system will be established and implemented at region level, to help assessing the success of the land decisions and the identified set of interventions, by observing the changes on the land status, through monitoring of each LDN indicators separately. The values of all three indicators must remain stable or improve for LDN to be achieved. 10) *Reporting LDN benefits*: will establish an LDN monitoring scheme and will identify the institutional mechanism through which progress towards LDN subnational target will be monitored and communicated at national level. Advancing towards LDN regional target will contribute to the LDN National Voluntary Target by strengthening the land planning process in Karakalpakstan.

62. South-south cooperation: In addition, the project will support South-South cooperation and exchange of knowledge between countries in the region and/or dealing with similar climatic conditions and discuss best practices in establishing subnational/regional level LDN targets. To support wider outreach the project will organize and facilitate a regional workshop providing a platform to analyze and share the project’s results and approaches on LDN compatible integrated water-land use and discuss the challenges and opportunities of LDN target setting at subnational levels, showcasing Karakalpakstan’s experience and discussing countries experiences with institutional mechanisms linking subnational and national tiers of monitoring and reporting LDN progress within the wider SDG Agenda. The project will leverage UNDP’s regional and global expertise and will also reach out to international LDN experts, representatives of UNCCD, the Global Mechanism and LDN Target Setting Programme who will be invited to hold presentations.

63. Furthermore, the project specialists under the coordination of the International LDN Expert and the International Land Use Planning Expert will develop a Manual with guidelines for establishing LDN subnational targets and how to include these targets into districts integrated land use planning, encompassing the knowledge generated by the project. The project will submit the *Manual* for formal approval to the district authorities (khokimiyats) of the four targeted districts and will be included in the institutional land use planning procedures. It is expected that through these Manuals the project results will be replicated in other districts as well.

Output 2.2 Integrated land-use spatial planning in four priority districts developed and under implementation in line with LDN principles.

64. The project will build on the ongoing trend to gradually transfer planning and development of local policies from the national to district and local authorities. The LDN hierarchy “avoid-reduce-restore” will be central to the integrated land use planning in the project area (at district levels, chiefly in Karakalpakstan pilot districts). Within the context of application of LDN concept in the integrated land use planning in the pilot districts, the existent conditions, the LDN *hot-spot areas* and areas under high risk of future degradation will be determined. The project will seek to use (or to adapt) the final Innovative Land Use Planning software, promoted by UNCCD through open source data, as a result of the recent GEO-LDN Technology Innovation Competition, whose results will be final during the first quarter of 2021²⁴. Placing LDN at the centre of land use planning can be challenging, as it was reported by the UNCCD Science-Policy Interface (SPI)²⁵, in that “limited national progress is evident when it comes to establishing effective integrated land use planning systems and embedding neutrality mechanism into them”.

65. Recognizing the importance of filling this gap, UNCCD Country Parties tasked the SPI with the development of a demonstration resulting from an open call, of how LDN can be incorporated into existing open source land use planning and trade off analysis tools. It is in this context that the GEO-LDN Initiative and the SPI have launched this innovation competition; the challenge is to develop a software that can support the implementation of a neutrality mechanism within a well-established open source model. This “no net loss” land use planning module would help users to map anticipated

²⁴ <https://www.unccd.int/news-events/competition-design-land-use-planning-software-land-degradation-neutrality>

²⁵ https://knowledge.unccd.int/sites/default/files/2019-08/UNCCD_SPI_2019_Report_1.2.pdf

future impacts of land use decisions for a given area. A land use planner would be therefore able to generate a scenario where all expected losses of productive land can be counterbalanced with planned gains for each land type. The resulting “Neutrality Maps” from using such an innovative tool would be extremely useful, as it will allow visualisation and quantification of gains (where interventions are planned to reverse past land degradation), stable areas (where land based natural capital can be maintained through good management) and anticipated losses (where realistically it is determined that land degradation may not be avoidable). No net loss would occur when the planner is able to generate a scenario where all anticipated losses can be counterbalanced with planned gains for each land type, while the integrity of all other land is maintained. The project will follow closely with UNCCD²⁶ the results of the competition and will explore ways of using this module or further adapting it to the country’s needs.

66. The project will build on the FAO land use planning guidelines and lessons learned from the land use planning experience under the UNDP/GEF project “Supporting sustainable land management in steppe and semi-arid zones through integrated planning and Agri-environmental incentives” in Kazakhstan (2015-2020). The project will use GEF resources to address drivers of land degradation and remove the barriers that hampers sustainable land use planning at district level through the following envisaged activities:

- Setting up district level inter-sectorial Integrated Spatial and Land Use Planning District Committee (ISLUPDC) in the four targeted districts Alat and Karakul (Bukhara province) and Moynaq and Amudarya (Karakalpakstan province) consisting of local divisions of State Committee on Land Resources, Geodesy and Cadastre (Goskomzemgeodezkadastra), Ministry of Agriculture, Ministry of Water resources, State Committee on Ecology and Environment Protection, district authorities, PAs managers, local communities’ representatives, farmers (daikhan farms, individual farmers), women groups . With the project support, the ISLUPDC will be assisted by a group of technical experts and project team, as well as technical support from specialised women NGOs such as the Business Women Association of Uzbekistan, to facilitate a series of local workshops and round table meetings in order to discuss land use decisions, and how these affects local communities and how it may reflect differently on women and men. With the project support, relevant regulatory measures will be developed for institutionalisation of the Inter-sectorial Integrated LDN compatible Spatial and Land use Planning District Committees (ISLUPDCs) at sub-national levels in the country.
- Development of a set of methodologies and criteria for the assessment of arable (irrigated and non-irrigated land), ecosystem services and rate and degree of land degradation aligned with LDN principles.
- Data collection and identification of land and water resources (climate; landforms and soils; land cover; water resources) in the pilot districts considering geo-climatic conditions, natural ecosystems, natural and anthropogenic processes (e.g. areas vulnerable to/impacted by degradation, water and wind erosion, loss of humus content etc) and socio-economic (e.g. population, including age and gender distribution, assessments on linkages between land use types and role sand responsibilities of women, gaps in women participation in decisions on land use and land management, settlements and current economic activities, access to markets etc.). The project experts working under this output will work together with the project specialists that are carrying out flora and fauna inventories and support the PAs zoning under Output 3.1.2 in order to map out “biodiversity hotspots” and include the necessary protection measures into the LUPs/ISLUPS .
- Identification of land potential and spatial assignment of appropriate land use types and practices using participatory planning methods that considers the needs of all the stakeholders, differentiated needs of men and women, and participation of vulnerable groups, local knowledge and development priorities in the districts and settlements *auls* and *kishlaks* (villages). At this stage, different project expert teams (working to support different outputs) will work together. The multi-disciplinary teams of experts will assess the potential impacts of different land use options, the assessment of land degradation trends and intensity within each land use type at district level

²⁶ UNCCD contact detail: Ms. Sara Minelli sminelli@unccd.int Programme Officer on Monitoring & Assessment.

[https://www.unccd.int/news-events/geo-ldn-initiative-launches-competition-design-land-use-planning-software-land#:~:text=Land%20Degradation%20Neutrality%20\(LDN\)%20is,context%20of%20land%20use%20planning](https://www.unccd.int/news-events/geo-ldn-initiative-launches-competition-design-land-use-planning-software-land#:~:text=Land%20Degradation%20Neutrality%20(LDN)%20is,context%20of%20land%20use%20planning)

(e.g. pastures/rangelands, forests, irrigated areas) and will identify potential counterbalancing measures within each land use type.

- In the case of Moynaq and Amudarya districts of Karakalpakstan, this activity will be linked to the land degradation assessments and setting a mechanism for neutrality activities (under Output 2.1). The LDN targets identified for Karakalpakstan under Output 2.1 will be included in the spatial and land use planning in the two districts of Karakalpakstan (Moynaq and Amudarya).
- Matching identified functional zones with economic priorities of rural settlements (*auls* and *kishlaks*) in order to determine appropriate economic activities and scale for each land unit that will not deplete soil resources and will maintain integrity of ecosystems and ensure productivity for agricultural lands in the long term.
- The project will apply targeted feasibility/risk assessments (including climate-related risks and vulnerabilities) and site-specific screening in selected areas, to identify, prevent and mitigate potential economic displacement and negative impact on the critical habitats. Potential conflicts among different land-users and between land users and ecosystems will be assessed and measures to mitigate or eliminate such potential or existing conflicts, will be agreed with stakeholders and included in the respective plans. If confirmed, the risk of economic displacement will be managed by integrating all elements of a Livelihood Action Plan into the respective plan for the given site (as per SESP/ Annex 6) .
- Development of an *LDN compatible GIS based Land Use Concept* ²⁷ and its dissemination to relevant government bodies. The planning document will contain guidelines (including GIS based maps) for different types of land use planning, aligned with the LDN response hierarchy, with the development priorities at district level and at local rural settlements level and the potential for ecosystems impact. The Guidelines document will be based on the experience generated during the land degradation assessments.
- Integration of land-use planning results into the schemes for rational use of land resources in the rural areas (*auls* and *kishlaks*).
- Assessment of the alignment with LDN principles and lessons learned, summarized to inform the next cycle of land use planning at district and local levels in the targeted areas.
- A monitoring and enforcement system for the spatial and land use planning will be put in place, providing land inspectors with protocols to monitor LDN compatible ISLUPs. The roles and responsibilities of the government institutions involved in territorial planning will be clearly identified and enforcement will be clearly defined based on their functional roles. The system will have sanctions attached, based on the current Land Code (1998) and the rules for rational land use, specifically the section on increasing soil fertility and environmental protection, and land use noncompliance.
- Formal approval of the ISLUPs by district local authorities (khokimiyats). This is an important step that will ensure operationalisation of the ISLUP at district level, increasing chances that LDN compatible integrated land use planning will be actually implemented. After approval of ISLUPS, the plans become mandatory to all land users. The project will hold a series of capacity building workshops to train target groups at district and local levels (under Component 4) on the comprehensive LDN compatible land use planning, effective coordination and enforcement. The target groups will include relevant departments of district administrations, local divisions of State Committee on Land Resources, Geodesy and Cadastre (Goskomzemgeodezkadastra), Ministry of Agriculture, Ministry of Water Resources, State Committee of Ecology but also community representatives, including at least 30% women. The project will summarise the results of the targeted district-level spatial and land use planning exercise and will produce a “Manual with Guidelines on LDN compatible Integrated Land Use Planning at” for replication and scaling up.

²⁷ The LDN compatible GIS based land use concept will include landscape (natural and cultural), soil, wildlife, biome maps. Each map will include categories of importance (high, medium, low value) along with sensitivity analysis. The land use concept will balance development priorities (economic and social) with conservation objectives in the area given the current status of ecosystems (habitat status, degree of degradation and sensitivity, available ecosystem services).

Output 2.3 Improved management of pastureland by local communities in 4 priority districts.

67. The project will use GEF resources to support the development of pasture management plans in the four targeted districts, in the PA/KBA/IBAs production zones and surrounding landscapes and rangelands under different degrees of land degradation. Elements of the tactical grazing management relevant to the specific context will be adopted for preventing, reducing, restoring degraded pastures in the demonstration project areas together with the owners of the land (who may be either the state forestry enterprises or local authorities) and together with local communities (who are leasing the land), supported by project's national/international expertise.

68. Trainings and round table meetings with farmers (implemented within Output 4.1) will increase their knowledge and skills on sustainable pasture management practices - pasture rotation, access to veterinary services, selecting optimal livestock breeds fodder production and Phyto melioration techniques. All the SLM measures for irrigated and non-irrigated arable land, proposed for implementation under Outputs 1.2; 2.3; 2.4 and 2.5 are captured under Annex 24, and are part of the Project Strategy. Most of the pastures are located on lands owned/managed by forestry enterprises and local authorities management (khokymiats). The project will enter into signed agreements with the forestry enterprises and/or local authorities, and livestock farmers, aiming at integrating the pasture management measures with the 10 years forestry management plans. The project will use the GEF resources to develop the management plans and provide technical assistance for implementation of the pasture rotational grazing, biological materials (seedlings), technical support to farm business plan development.

69. The project will support the development of gender sensitive pasture management plans for approximately 90,000 ha of pastures through several activities, by working together with forestry enterprises, local authorities (khokymiyats) and local communities:

- Inventory of pastures in the selected project sites and development of SLM measures according to the LDN approach prevent-reduce -restore, including: (i) Validation and delineation of proposed targeted pasture areas (*described under Annex 24*), in coordination with the integrated land use planning in targeted districts, using remote sensing data and aerial surveys; GIS-supported mapping of pastureland (physical inventory count of pastures, validation of existing cadastral data); (ii) Botanical inventories of flora composition, and assessment of the rates and degree of degradation; (iii) Identification of basic infrastructure barriers such as the lack of watering infrastructure, lack of shading infrastructure for livestock; (iv) Assessments of soil condition and presence of native forest shelterbelts; (v) Assessment of socio-economic factors (including the differentiated ways men and women use and have access to natural resources including pastures, highlighting challenges faced by women, youth and other vulnerable groups) and verification of the available suitable pasture management technologies.
- Mapping sensitive areas and clarification of regulations on pasture allocation and norms on carrying capacities for each pasture type, livestock and forage guidelines (the establishment of the appropriate pasture grazing carrying capacity methodology will be developed, tested and promoted with transparent and well documented analysis).
- Validating and fine tuning the proposed SLM measures for pasture areas (*under Annex 24*) alignment with the integrated LDN compatible land use planning under Output 2.2. The selected pasture sites under the project scope will promote pasture management and grazing measures that will contribute towards preventing, reducing and restoring degraded land at district level. The SLM measures will be strictly aligned with grassland recovery time; decreasing grazing rate of moderately degraded pastures by 50% by introducing a rotational grazing system (and use of distant pastures) moving livestock between plots/ paddocks and around water wells.
- Planning for distribution of livestock manure in select areas of the landscape to increase soil fertility.
- Design of measures to ensure weed control, pasture fertility works and direct seeding especially for patches of more severely degraded areas that needs soil preparation and direct seeding.
- Planning for annual harvesting of fodder crops (and medicinal plants, as feasible) as agreed with the pasture users
- Design and plan for agroforestry measures such as planting forest shelterbelts and areas of interconnection within biological corridors, maintaining or creating ecological connectivity in the PAs buffer zones.

- Creation and maintenance of pastures plants and seed nurseries.
- Facilitation of alignment/integration of the pasture management plans with the relevant 10-year business development strategy of forestry business units;
- The project will apply targeted feasibility/risk assessments (including climate related risks and vulnerabilities) in the project areas, in order to identify, prevent and mitigate potential negative impacts on critical habitats and potential economic displacement risk resulting from the design pastures management measures (such as tactical grazing methods). If confirmed, via site-specific screening during implementation, then the risk of economic displacement will be managed by integrating all elements of a Livelihood Action Plan into the respective pasture management plans. During the implementation, site specific screening will be applied in order to implement the required management measures as described in the plans (as per SESP Annex 6 and ESMF Annex 30).
- The Pasture Management Plans will encompass Pasture Monitoring Scheme with agreed indicators. The pasture monitoring fiches will also include monitoring of appropriate measures for environmental and social safeguards e.g. (i) measures for maintenance of established pasture carrying capacity to counteract potential increase of livestock on rehabilitated pastures; (ii) site specific risk assessments in case of seeding non-indigenous fodder plant species and strict monitoring of results; (iii) site specific assessments prior to potential converting steppe ecosystem to fodder plots and strict monitoring of the vegetation dynamic etc.

70. Overall, the project will promote the land degradation neutrality principles within the project sites and within the same land use types (e.g. pastures). Through participatory assessment and evaluation of the different land use types, the project will facilitate agreement among pasture users and consensus on the results of the analysis of the ecological state of each area and more importantly, upon the measures that need to be implemented that are contributing towards “land degradation neutrality”, to conserve pastures that are healthy and improve those pastures that are showing different degrees of degradation. Involving communities in this “neutrality” discussion allows them to visualize and understand how ecosystem services flow through the different land systems, and it is expected that LDN and the need for a landscape-scale ecosystem-based approach will be better understood.

Output 2.4 Innovative land restoration supported at most degraded areas.

71. Within the framework of the Output 2.4 the project’s focus is on targeted land restoration options in highly degraded areas around PAs/KBAS/IBAs, addressing different types of land degradation: salinization, erosion and desertification. This may include the transformation of degraded arable or pasture lands to fodder or pasture areas by biodrainage, planting licorice and alfalfa, implementation of smart irrigation techniques that improved its condition; integrated innovative agroforestry measures through the cultivation of perennial crops, primarily trees (including fruit trees) and shrubs together with interplanted arable crops (in the first 3 years until trees mature), small poultry farms, basket weaving workshops, and livestock farming.

72. The proposed SLM measures in targeted project areas will support restoration of 1,500 ha degraded land. For degraded forest zones, the project will support natural regeneration, through rotational fencing or other management techniques for minimizing livestock impact on specific areas for natural regeneration. To save productivity of lost agricultural land, the project plans to introduce Phyto amelioration for restoration of degraded pastures using perennial leguminous forage crops, particularly alfalfa. On other areas the project will work with local communities to plant liquorice (*Glycyrrhiza glabra*) and rosehip (*Rosa gallica* and/or *Rosa canina*) plantations, unabi (*Ziziphus jujube*) and sea buckthorn (*Hippophae rhamnoides*) which can be commercialised by the local communities and can restore soil productivity. The proposed location of intervention areas, where degradation is severe, are captured under Annex 24 and the proposed restoration measures will be implemented by the project in partnership with local communities, local forestry enterprises representatives and local authorities. The selected areas for land restoration demonstrative activities will be further validated during the project implementation, based on the results of the LDN assessments and the location of the “LDN hotspots” (in coordination with Output 2.1.). The project will set up local tree and alfalfa and liquorice nurseries, in cooperation with local forestry enterprises to support local communities implementation of land restoration measures (in coordination with Output 2.5). The project will apply site specific screening and feasibility/risk assessments (including climate related risks and vulnerabilities) potentially resulting in ESIA, as needed, in order to identify, prevent and mitigate

potential negative impacts on the critical habitats. The land restoration measures are expected to ensure livelihoods improvements and environmental sustainability during and beyond the project period (Please see ESMF Annex 30).

73. In addition, the project will explore together with the International Center for Biosaline Agriculture (ICBA) innovative solutions for restoring degraded saline land, testing potential suitable crops such as quinoa. Quinoa is an undemanding and low-cost crop that does not require much water and is tolerant of harsh agricultural and environmental conditions. Scientists from Karakalpak Scientific Experimental Station have tested quinoa cultivation in 2018 with promising results²⁸. With the project support, testing quinoa cultivation in harsh condition will be continued in Karakalpakstan (in the two targeted districts of this region) on pilot areas that will be selected jointly with the ICBA.

74. The project will further identify innovative solutions to advance integrated land-water management through the organization of the *Aral Sea Innovation Challenge* (according to UNDP Innovation Challenge Procedures) to promote business solutions, innovative technologies, policies, regulations, and financial instruments aiming at improving land governance and reversing land degradation in the Aral Sea Region. The proposed process is aligned with the key priorities of the UNDP Country Programme Document (CPD) 2016-2020 (“Environmental Protection to ensure sustainable development”) and it aligns with UNDP’s efforts to promote a sustainable, transparent and equitable use of natural resources and good agricultural practices and incentives by improving farming and water use efficiency.

75. The proposed Innovation Challenge further supports UNDP’s priority areas under the new Country Programme Document (CPD) 2021-2025, particularly the government’s advancement towards climate resilient and nature based solutions, enlisting System innovations Advanced for integrated Solutions in the Aral Sea Region, putting in place a multi-partner innovative approach to address long-standing challenges in the Aral Sea Region²⁹. Finally, the proposed process is aligned with the stated intention of the President of Uzbekistan to turn the Aral Sea Region into an area of environmental innovation and technologies to reverse the environmental conditions and advance towards achievement of the SDGs³⁰. The Innovation Challenge for Aral Sea Basin will be aligned with the recent Concept for Aral Sea Region- Ecological Innovation and Technologies Zone, currently under approval process by the intersectoral working group under the coordination of the Ministry of Innovations, members of the Oliy Majlis (Parliament) of Uzbekistan and the International Innovation Center for Aral Sea Region, through the Decree No. 965/2018. The Innovation Challenge is envisaged to be organized as part of the operationalization of the Concept for Aral Sea Region- Ecological Innovation and Technologies Zone, under the auspices of the International Innovation Center for Aral Sea Region and will identify and award innovative technologies, as well as cutting edge policy or regulatory economic, IT and/or financial solutions that have the potential of being transformative for the region.

76. The Innovation Challenge will focus on the region of Karakalpakstan which has been identified by the National LDN Target Setting process as being the national degradation “hot spot” in the country. The following activities are envisaged:

- With the support of the UNDP Country Office, the Innovation Challenge will be organized early into the third year of the project implementation. It is assumed that by the third year, the project would have generated a critical mass of knowledge and awareness on the benefits of the integrated water-land management in arid areas and will be well positioned to advocate for the promotion of innovation in land governance. The process of selection of the Responsible Party (RP) assigned with the organization of the Innovation Challenge will be approved by the Project Board. A Task Force for the evaluation of the proposals will be set up. It is envisaged that the Centre for AgroInformation and Innovation and International Centre for Biosaline Agriculture (ICBA) will be represented in the Task Force and will support the evaluation of proposals.
- Development of the Innovation Challenge Manual: The project will develop an Innovation Challenge Manual based on UNDP promoted principles in addressing an Innovation Challenge: (i) Consistency with the Development outcomes of the UNDP Country Programme Document (ii) Identification of the problems to be solved (iii) Clear Rationale and Design for the Challenge developed and agreed by the Project Board (iv) Management arrangements clearly identified (v) Beneficiary-Centered Context-Appropriate and Solution-Focused process, promoting innovative solutions that will yield ecological and social benefits, and are addressing the needs of end users and beneficiaries in Karakalpakstan (vi) Financially Sustainable and Scalable with viable solutions, available for sharing and building on technologies that are adaptable to various contexts. (vii) Fair, Open, Transparent and Inclusive

²⁸ <https://www.biosaline.org/news/2018-12-15-6716>

²⁹ <https://sdgintegration.undp.org/turning-tide-aral-sea-region>

³⁰ <https://en.trend.az/casia/uzbekistan/2943834.html>

promoting innovative ideas that must be opened to all entities, and to all stakeholders and deploy transparent and accessible approaches.

- The Challenge will be broadly advertised in the media and through the internet supported platforms and through the project's advocacy events (under Output 4.1).
- Submission of Concepts: Concepts could be submitted by public or private entities, private companies including start-ups, NGOs/CSOs, academic institutions. The aim is to promote any innovative strategies for integrated land-water use in Karakalpakstan that will stop and reverse land degradation and will improve local livelihoods.
- Initially, the interested entities will be invited to submit concept notes and later, the selected applicants will be further asked to develop full proposals. Co-financing of the Innovation Challenge by the Government of Karakalpakstan and International Innovation Center for Aral Sea Region will be explored.
- The innovation prizes will be of maximum 10,000 USD per winning proposal, and the 4 most promising innovative proposals will be pitched to potential investors and international donors for further financing in view of upscaling and replication.

Output 2.5 Community forest use in riparian corridors in four priority districts developed and under implementation.

77. The project will use GEF resources to develop four community forest management plans in key areas of riparian corridors for approximately 10,000 ha tugai and turanga forests. In addition, the project will support the Forestry enterprises in the project areas to review and update their 10 years forest plans as needed, in accordance with the requirements of the Law on Forests. The project supported forest management plans will be aligned with the 10-year forest plans and planned investments of the respective forestry enterprises. The project will design measures to avoid/prevent forest degradation and apply minimal interventions in some of the forest denuded patches in order to maintain forest's protective function. The latter will possibly include simple low cost forest restoration methods to convert deforested lands to more productive forest area aiming at accelerating natural regeneration.

78. The project will provide technical assistance and biological material (e.g. tree seedlings) to save existing forest range and replenishing missing rows of trees. Other measures will consist in removing weedy vegetation and/or disturbances such as overgrazing through rotational fencing or other management measures to prevent livestock grazing in the forest regeneration areas. Illegal/unregulated grazing is an important problem for tugai forests, i.e. in the floodplain of the Amu Darya, and in some areas of the southern Aral Sea basin on the margins of wetlands. Unregulated livestock grazing on floodplain meadows, transition areas of river floodplains, and wetlands leads to trampling riparian vegetation and destruction of undergrowth of woody and shrubby species (tauranga, willow, loch, tamarisk), that are used for nesting by many near-water species of birds. Cattle eat young shoots, which limits the capacity for natural regeneration, a reduction in forest ecosystems, and affects forage availability for wild ungulates, such as the Bukhara deer.

79. The project will apply targeted feasibility/risk assessments (including climate related risks and vulnerabilities) during the development of the forest management plans, and site-specific screening (and potential ESIA) at the selected sites, during the implementation (of the plans and the selected forest management measures) in order to identify, prevent and mitigate potential negative impacts on the critical habitats. If confirmed, via site-specific screening during implementation (as per ESMF Annex 30) then the risk of economic displacement will be managed by integrating all elements of a Livelihood Action Plan into the respective forest management plan at the given site.

80. The project will design specific measures to support community forestry models in and around targeted villages with fast growing plantation trees and commercial nut and fruit tree species. The project will learn from the experience generated by the GEF funded Uzbekistan Mountain Ecosystems Project (PIMS 5438) in pastures and forests management and will further review national and regional best practices in community forest management models, applying such community forestry model in creating forest plantations to serve for sustainability purposes. In plantation forestry implementation the top priority shall be given to the biodiversity conservation approach. A wide public awareness raising campaign (under Component4) will target various audiences on the importance of preserving tugai forests and the benefits of creating forest plantations and forest shelter belts. The local communities will be supported by the micro-grants mechanism described under Output 3.2.3. In addition, the project, in cooperation with the scientists from the Seed Production Center under the State Forestry Committee and the Forestry Research Institute, will support the forestry

enterprises in targeted areas establish and maintain local tree nurseries including native tree species and also fast growing plantation trees and commercial nut and fruit trees species.

81. The proposed activities will be implemented by the state forestry enterprises and representatives of local communities that are managing the lands. The project will provide technical assistance, seedlings and grant funding to support community based forest management activities, establishment of tree nurseries as a source of biological materials, grant support for the establishment of woodlots or plantations in and around the villages that is expected to incrementally reduce the risk of harvesting pressure on tugai/tauranga forest regeneration areas, for fuels and construction wood by communities living in nearby villages. Technical and grant funding will be provided for the support of food producing fruit and nut orchards and herb garden in and around targeted villages, it is envisaged that these orchards and herb gardens will reduce the harvesting pressure on tugai/Tauranga forest regeneration areas. Recommended activities for the implementation of the forest management plans and targeted areas captured under *Annex 24*. The locations will be validated by the project's expert mapping according to LDN prevent, reduce, restore hierarchy (under Outputs 2.1 and 2.2.).

Component 3 Conservation of globally significant Aral Sea Basin biodiversity

82. The project's work under Component 3 will focus on addressing direct drivers of biodiversity degradation, to protect globally important biodiversity, habitats and species, through PAs system expansion and targeted support in strengthening the management effectiveness of some of the key existing PAs. The project will use GEF resources for targeted investments in spatial and land use planning in the surrounding geographies of the PAs, as a critical step in ensuring that the PAs are well integrated in the sustainable management land use and agricultural practices, and that buffer zones and corridors will be appropriately mapped and delineated on the ground and that this information will be integrated into the LDN compatible spatial and land use planning under Output 2.1.

83. The project experts and project team will facilitate a series of workshops with local communities supporting awareness and knowledge creation among communities about PAs function, significance and potential. Under this component, the project will deploy the *Process Framework* mechanism, in order to facilitate local consultations on potential economic displacement resulting from new PAs designation and stricter regulations due to improved zoning (as per SESP Annex6). In total 7 PAs will be covered by the Process Framework as follows: the new PAs under Output 3.1.1 and two exiting PAs under Output 3.1.2 namely Kyzylkum Reserve and Lower Amudarya Reserve; the envisaged activities in the other existing PAs (Refuge) i.e. in the State Integrated Sanctuary Saygachy and Dengizkul lake State Refuge the project's activities are unlikely to pose a risk of economic displacement. In the case of Sudochye Refuge, the Process Framework will cover the associated new PA (Sudochye System of Lakes) which includes the old Sudochye Refuge. The project manager and UNDP country office will ensure that any potential risk of economic displacement resulting from the PAs expansion and the stronger enforcement of regulatory regimes will be appropriately mitigated. The project will further implement the Gender Action Plan and will advocate for women participation into consultations and will offer appropriate platforms for voicing all concerns including women, youth vulnerable groups and rural poor. Additional awareness raising events, fairs and exhibitions (under Component 4) will complement these efforts and will raise awareness on the importance of ecosystem services for resilient livelihoods.

Outcome 3.1 Lake, wetland, and riparian corridor KBAs secured through strengthened protected area estate: (i) 5 new protected areas established covering new 3,094,600 ha of protected territory; (ii) METT scores improved by at least 20% over baseline by end of project in 5 existing PAs covering 757,329 ha; (iii) Stable or improved trend of populations of globally significant biodiversity indicator species, such as Bukhara deer, Goitered gazelle, Central Asian tortoise, Saker falcon, Greater spotted eagle, and other species within the expanded PA estate. The project will aim at the creation of 5 new PAs, to increase the coverage and legal protection of globally significant biodiversity (IBAs/KBAs) coverage hosting key species in Aral Sea region and will further improve the management effectiveness of 5 existing protected areas under the project scope.

Output 3.1.1 Grounds established for protected area estate expansion securing the integrity of lake, wetland and riparian KBAs in Aral Sea region, through completion of feasibility studies, mapping and inventory, zoning regimes, management and financial planning.

84. The project will implement the groundwork and support the creation of five (5) new protected areas with a total area of 3,094,600 ha: the National Park "South Ustyurt", the National Park "Central Kyzylkum", the Reserve "Sudoche Lakes System State Wildlife Sanctuary" (on the basis of the existing refuge with an area of 50,000 ha), the refuges "Mejdurechye of Akdarya-Kazakhdarya" and "Akpetki". All these sites include IBAs/KBAs. The creation of the new PAs is aligned with the priorities in the new NBSAP (2019-2028), which aims at expanding the protected area system representativity and improving management effectiveness of existing PAs. Species and habitat mappings will identify potential gaps in the PAs system in

order to effectively conserve biodiversity, considering the potential for ecosystem change and ecological shifts due to climate change impact. In the project target area, there are 17 IBAs but only a small number of them have protected area status. The new PAs will fully or partly cover 9 IBAs. Improved legal protection of IBAs/KBAs will secure the status of key species and habitats and will ensure the integration of biodiversity into sustainably managed landscapes.

85. (i) South Ustyurt National Park (proposed IUCN Category II): the proposed form of legal designation will address the drivers of biodiversity loss derived from unsustainable agriculture practices and developments; the new PA status will ensure a better regulation of the economic activities like grazing, fishing in Sarygamish lake area, development of oil and gas fields, construction of pipelines and roads. The new envisaged PA status will provide legal protection to the following key species, whose population are expected to get stable through the project intervention: Ustyurt ram *Ovis vignei arkal*, with baseline at estimated at 100 individuals; Goitered gazelle *Gazella subgutturosa* is expected to maintain or increase its population currently estimated at 600 recorded individuals; and the kulan *Koulan equus hemionus* is expected to increase its population, currently at 50 individuals. The lack of field stations in the Ustyurt plateau remote areas and the adjacent Sarygamysh depression in the south with high biodiversity, prevents the full-scale security and monitoring activities. The project will therefore support the establishment of monitoring field stations in consultation with the State Committee on Ecology and Environmental Protection and the Committee of Karakalpakstan on Ecology, regional inspectors and Academy of Science of Uzbekistan considering the boundaries of the new PAs, accessibility (distribution of biodiversity, roads, communication) and staff capacities. This base will serve as a field infrastructure for scientists and reserve inspectorate after the protected area becomes operational. Research and species conservation targets will be refined based upon the results of the inventories. The project will site-specific feasibility/risk assessments (including climate related risks and vulnerabilities) and appropriately scoped ESIA to the selected site, in order to identify, prevent and mitigate potential negative impacts on the critical habitats (Please see ESMF Annex 30).

86. (ii) Central Kyzylkum National Park (proposed IUCN Category II) consists of desert ecosystems, hills and wetlands, with high value desert forests (white saxaul, juzgun) and many endemic species and Red Book species. The project will address the drivers of biodiversity degradation which here, are represented by agriculture (grazing and cutting of trees and shrubs) and unorganized tourism. The envisaged PA status and corresponding zoning and legal enforcement will increase the protection of key habitats and will stabilize, the population of indicators species in the long term: marbled duck *Marmaronetta angustirostris* currently at approximately 20 nesting pairs ; White headed duck *Oxyura leucocephala* at 20 individuals; Central Asian tortoise *Testudo horsfieldii* at least 1 individual per hectare. During the preparation work of the PAs designation, comprehensive inventories of key indicator species will be carried out to validate and complement baseline information.

87. (iii) Sudochoye system of lakes (proposed IUCN Category IV): The envisaged improved legal protection, will address the main drivers of biodiversity threats such as overfishing, overgrazing and illegal tree cutting. Apart of this however, the lakes are extremely vulnerable to the unstable hydrological regime and decreasing water river flow. Creation of the proposed PA will protect endangered populations of key species such as : Flamingo *Phoenicopterus roseus*- maintenance of at least one nesting colony in the area; White eyed pochard *Aythya nyroca* expected to increase its presence currently at 200 individuals, possibly up to 1000 individual (during fall and spring migration) if the threats/disturbances at site will be reduced; Saker falcon *Falco cherrug* expected to increase its presence from an occasional nesting to at least 1-2 nesting pairs.

88. (iv) Mejdurechye Akdarya-Kazakdarya (proposed IUCN Category IV) hosts a system of ephemeral river channels, sections of tugai forests and massifs of shrubs, inter-channel depressions encompassing lakes with unstable hydrological regimes. The creation of the envisaged Akdarya-Kazakdarya Mezdurechye protected area and implementation of the correspondent legal norms for biodiversity management will help improve the state of tugai ecosystems and the critical habitats they encompass, used as nesting or feeding sites by rare and globally endangered indicator species: White eyed pochard *Aythya nyroca*, White headed duck *Oxyura leucocephala*, Great white pelican *Pelecanus onocrotalus*. There have not been flora and fauna systematic observation conducted in the area and therefore any baseline information is lacking. The project will first conduct a baseline assessment at the inception stage.

89. (v) Akpetki (proposed IUCN Category IV): Drought and unstable hydrological regime is a serious threat; the lake system is completely depended on the water flowing through Kokhdarya channels and KS-4 canal. Threats associated with overgrazing applies primarily to areas around water wells. The lakes are intensely used for commercial fishing. Creation of the envisaged Akpetki protected area will enable application of legal norms that will increase the level of biodiversity protection, conducive to positive changed to the presence of indicator species such as: Dalmatian pelican *Pelecanus crispus* currently at 100 individuals; Pin tailed sandgouse *Pterocles alchata* currently at 1000 individuals (fly-bys) .

90. With the project's support, technical assistance and financial support will be provided for the necessary preparatory work for the legal designation of the PAs (including assessment of status of forest and grassland ecosystems, conservation priorities e.g. identification of threatened areas, zoning, wildlife movement patterns), for management planning (e.g., implementation of threat-reduction activities), and development of, or strengthening the existing system of monitoring and reporting.

91. The envisaged project-supported activities for the PAs designation will be implemented by the State Committee on Ecology and Nature Protection staff with the support from the project experts, as follows:

92. (i) Comprehensive analysis of existing literature and identification of the baseline gaps; organization of targeted species surveys and socio-economic assessments of the areas;

93. (ii) PA Zoning will be implemented under Output 3.2.1 and it will establish the limits of the acceptable use and development activities in the PAs, according to the proposed form of the legal protection. The project will support the establishment of core and protection zones, analysing the optimum number of wildlife and the habitat's carrying ecological capacity (according to the approved IUCN category). The PAs zoning will be coordinated with the spatial and land use planning under Output 2.2 and will be enlisting multi stakeholders' participatory approaches to reconcile multiple uses and users' interests. The PA zoning preparatory assessments will include socio economic assessments and assessments of eco-tourism potential of these areas (aligned with the proposed PA category and applicable legislation).

94. (iii) Process Framework: Includes communication and consultation processes with all affected stakeholder institutions, groups and individuals (local communities) to secure agreement for PA establishment, and mitigate any risk of real or perceived economic displacement (as per Annex 6 SESP). During the preparatory work leading to designation of new PAs, the project will establish local advisory bodies (Local Advisory Committees) including representatives of self-governing bodies, non-governmental bodies or associations, CBOs. The Local Advisory Committees will be established according to Government Order no 339/ May 4 2018 and will ensure full engagement with local communities and natural resources users. The discussions will seek to secure local communities support of the new PAs proposals ensuring that:

- a) the proposed IUCN category Biosphere Reserve designation for "Central Khyzylkum" is appropriately balancing the planning of the future reserve's lands on Uchkuduk and Tamdinsky districts which are currently not used in agriculture. The proposed territory is far from any settlements, industrial sites and mining enterprises, and population density is very low. Local population and business representatives will fully participate in the zoning and into the open public consultations during the preparatory activities
- b) the proposed IUCN /National Park category for "South Ustyurt" allows counterbalancing of ecological and economic objectives. This territory too is located far from settlements, and the proposed legal regulation applicable for national parks will allow the continuation of sustainable fishing, promotion of agritourism in parallel with conservation measures
- c) for the planned natural Refuges/IUCN Category IV, Sudochye system of lakes, Mezdurechye, Akdarya-Kazakhdyr, Akpetki: The creation of sanctuaries will strengthen the mechanisms for the protection of key biodiversity values, and globally threatened aquatic and semi-aquatic avifauna and their habitats. Under the proposed protection regime, economic activities will continue aligned with the applicable regulations for IUCN Category IV.

95. If the risk of economic displacement is validated by the assessments, the following processes and plans will follow the targeted assessments of economic displacement then a Livelihood Action Plan will be developed and compensatory measures designed in order to facilitate an alternative source of income (e.g. technical assistance for implementation of agroforestry measures; provision of tree seedlings; training on handicraft manufacturing; training on eco-tourism; support to market access). In line with the Stakeholder Engagement Plan, the project will inform local communities about the UNDP grievance mechanisms and will ensure that any complaint can be submitted to UNDP Country office in Tashkent.

96. The project will select different categories (IUCN categories) for the new protected areas expected to maintain a balance between ecological and socio-economic objectives. In addition, the project's outputs under Component 2 will facilitate dialogue and cooperation with the local communities on promoting sustainable agricultural practices in buffer areas and .

97. (iv) Formal endorsement: includes securing formal endorsement through a formal decision from the Cabinet of Ministers, for the protected areas establishment;

98. (v) *Institutional frameworks*: Defining institutional roles and responsibilities of the protected areas management authority, for the State Committee on Ecology and Environmental Protection and the individual PAs management units to be set up

99. (vi) *Development of management and financial plans*: with the support of project experts, the management and financial planning will be developed for the proposed new PAs in South Ustyurt and Central Kyzylkum in compliance with the legal requirements established by the State Committee on Ecology and Environmental Protection Resolution No3/December 2012. Legal standards of the natural resources use will be developed for Sudochye System of Lakes, and Mezdurechye Akdarya-Kazakhdarya and Akpetki Refuges, and a methodology and timeframe for the monitoring of key biodiversity will be formally approved. The project will ensure that the PAs Management Plans encompass measures for patrolling/ enforcing the environmental regulations and engagement with local communities with respect to human rights principles, understanding the local community's rights and needs.

100. The Ecotourism potential of the proposed PAs will be analysed in the context of sustainable management of biodiversity, aligned with applicable legislation and IUCN category. GIS supported assessments will determine optimal PA zoning and mapping of ecological and cultural values of the areas. Concrete PA financial mechanisms for generation of alternative sources of income for PAs management units and local communities will be included in the PA management plans and preparatory assessments. In addition, all the management plans will include identification of appropriate collaborative measures of including the local communities in PAs management and biodiversity monitoring. The PAs management plan will include human rights-based measures/actions for PAs rangers concerning patrolling and application of fines, search and arrest and interaction with local communities, aiming at promoting collaborative approaches (linked with targeted trainings under Output 3.2.2).

101. (vii) *Support to PA infrastructure and equipment* will include the following activities: delineation of the new PAs on the ground through appropriate signage and demarcation of the territory and the zonation of the new PAs; designation of entrance, cordons, security zones, support to basic research facilities and establishment of monitoring protocols. The project will support the establishment of an initial basic management/monitoring infrastructure: for example, observation towers are envisaged to be set-up in each new protected area, to ensure maximum coverage of the key sites supporting monitoring of wildlife but also tracking any environmental hazards (e.g. fires). The project will apply site-specific feasibility/risk assessments (including climate related risks and vulnerabilities) and (as necessary) targeted impact screening/ESIA to the selected sites where observation towers will be constructed/erected, management measures in order to identify, prevent and mitigate potential negative impacts on the critical habitats (as per ESMF Annex 30).

102. The delineation of the new PAs on the ground will be accompanied by erecting signs, information boards along the boundaries of the protected area with the required information. The project will work with the Bird Conservation Society to create and install info-boards/signage about the key biodiversity values of IBAs/KBAs in the protected areas under the project's scope. The new PAs staff will be equipped with operational IT equipment, GIS devices and field equipment (binoculars, camera traps, mobile communication devices; GPS navigators, power sources, generators, basic field equipment and 2 ATVs). The project will explore the opportunity to support South Ustyurt and Central Kyzylkum new PAs with the purchase of two off road vehicles (one for each of the two mentioned PAs) considering the extremely large territories of these proposed sites: South Ustyurt (1.4 million hectares) and Central Kyzylkum (1 million hectares). The State Committee on Ecology and Environmental Protection will ensure vehicle fleet maintenance, will cover other basic infrastructure costs and costs of newly hired PAs staff salaries.

Output 3.1.2 Improved management effectiveness of the existing PAs through PA regime compliance and enforcement, zoning, patrolling, research, species-focused conservation activities, as detailed in the narrative for the project strategy.

103. Under this output, the project will focus on strengthening 5 existing PAs capacities for management, research and monitoring, patrolling and legal enforcement. Through increasing the management effectiveness of the PAs system, in perfect alignment with the NBSAP 2019-2028, the project will strengthen the Government's ability to improve the status of biodiversity and ecosystem services. The project will particularly contribute to reducing threats to and improving in-situ conservation status of identified globally threatened biodiversity in target PAs, based on the results of METT, conducted at the PPG stage. The project will support activities and measures that will lead to an envisaged 20% increase in the METT scores for the targeted PAs and a positive change in the population of rare and globally threatened species.

104. During the project implementation, a much more comprehensive assessment of management gaps and assessment plans will be conducted, to better plan and implement targeted, on-the-ground conservation and threat reduction measures. At the same time, the project will conduct assessments of ecotourism potential and will develop practical measures and actions (action plans) that are necessary to lay down the foundation of nature-based tourism (ecotourism)

activities to leverage additional income to PAs and local communities. These assessments will be made available to local natural resource users, local authorities and the project will support advocacy and awareness for further investments in touristic infrastructure. Based on the METT scorecards and discussions with PA managers, the project is expected to support several general capacity strengthening measures for all PAs and a few, more specific, species and key habitat centred activities in each targeted area:

- Assessments of management gaps and preliminary round table meeting with PAs staff, assessing institutional and Training Needs Assessment TNA (trainings and seminars will be implemented under Outcome 3.2 for all PAs);
- Strengthening research and monitoring capacities, including the climate-induced changes of species distributions, altered migration patterns and/or habitat change, which will include technical support to improve species and habitats databases and monitoring protocols.
- Strengthening capacities of PAs rangers for patrolling and monitoring, providing binoculars, camera traps, mobile communication devices; GPS navigators, field equipment (all PAs).
- Specific species and key habitat centred conservation activities for each PA based on identified threats, as follows:

105. Kyzylkum State Reserve: The project will carry out the necessary studies for improved zoning and updating of the existing Management Plan, aiming at establishment of a conservation zone (under Output 3.2.1) and feeding corridors that expand into the surrounding buffer area, where wildlife (especially Bukhara deer) can take shelter during the overflowing of lambing habitats. The project will work with Karakul forestry, managing the land around the reserve, and will raise awareness among local communities about the need of the implementation of necessary protection measures during migration intervals of Bukhara deer outside the protected area. In this regard, the Process Framework will be used to conduct consultations with the local communities and mitigate the risks of any economic displacement (as per Annex 6 SES). If site specific screening will confirm that such risks exists then a Livelihood Action Plan will be developed by the project and compensatory measures designed. The project is aiming at facilitating an agreement with the local communities on the establishment of an ecological corridor for the Bukhara deer safe migration in the buffer areas. Improved management of the PAs and increased support from local stakeholders are expected to create favourable conditions and positive changes in the population of Bukhara deer (*Cervus elaphus bactrianus*) from 150 individuals at PPG stage to 170 individuals; Goitered gazelle (*Gazella subgutturosa*) from 30 individuals to 50 individuals; Saker falcon (*Falco cherrug*) from 5 pairs to 9 pairs.³¹

106. Lower Amudarya Biosphere Reserve The main threat to biodiversity is the unstable hydrological regime, the absence of flooding which prevents the regeneration of tugai/turanga areas. Approximately 4,000 ha of tugai ecosystems in the core area and 1,000 ha (out of 1500 ha) tugai around the reserve are degraded. Currently the available tugai areas decreased at such a rate that the habitat no longer has the carrying capacity for the population of Bukhara deer and the importance of an adequate ecological flow to allow for regeneration of tugai areas is crucial. The project experts will analyse available baseline, and will build on the knowledge generated by other donor implemented projects (e.g. GIZ project “Mapping natural resources along Amudarya banks in Uzbekistan and Turkmenistan”) and will develop and analyse scenarios for optimal number of species in the core areas and will support the delineation of a feeding corridor that could expand the current core zones and subsequent amendments to PA management and monitoring program.

107. The assessment of the current zoning and of the anthropogenic activity that has potential detrimental environmental impact will be analysed (e.g. an assessment of the operations of a cement factory that is located in the proximity of the core zone will be conducted and necessary regulatory measures and/or potential improved delineation of core area on the ground will be enforced/applied). Furthermore, the project will support on-going efforts by the State Committee on Ecology and Environmental Protection to identify suitable territories for relocation of individuals of Bukhara deer and the assessment and management of potential conflicts with local communities in the areas surrounding the reserve and areas selected for relocation. The project’s experts (EIA/safeguards experts; Community outreach experts; Conservation biologist and PAs experts) will support participative approaches and agreement with local communities to finding suitable trade-offs and compensation mechanisms for the set-up of a feeding strip for the Bukhara deer, and at the same time supporting the local communities in fencing off their agricultural field (e.g. mobile fences) in order to prevent encroachment.

³¹ Key species population trend is monitored through METT scorecard

108. Bukhara deer population is currently at 1233 individuals. It is estimated that approximately 80-100 individuals will be relocated by end project (based on the results of a study commission by GIZ and Zukkov Foundation³²). The project will explore opportunities to establish collaboration agreements between Lower Amudarya Biosphere Reserve and research organizations to study dynamics of restoration of vegetation and wildlife, within the context of the reserve. In this regard, the project will apply the Process Framework to conduct consultations with the local communities and mitigate the risks of any economic displacement. If site specific screening will confirm that such risks exist then a Livelihood Action Plan will be developed by the project and compensatory measures designed (please see Annex 6 SESP).

109. State integrated sanctuary Saygachy: The project will support improved management of key species and their habitats based on research and monitoring. For example, one of the main problems limiting the free roaming and feeding of key species is the lack of watering points. The project will conduct an analysis of the existing watering points and will map out the suitable locations to create new water holes by researching data on previously preferred habitats by the Saiga antelope and Goiterred gazelle population especially during spring-summer (interviews with local communities will complement the information base). Based on this analysis, two water wells will be created with the project support. The most suitable locations for water infrastructure will be established considering safety and accessibility. Two types of watering sources will be considered: (i) natural seasonal water collection areas (khaki- open pits in which rainwater can accumulate) can be created on the sites of the old watering points or in suitable natural depressions where rainwater can accumulate (ii) artesian wells locations will be established based on hydrological studies that will identify the most accessible underground water sites for drilling. Along with the other measures for strengthening PA's management capacities, the improvement of watering infrastructure will support conditions for an expected increase of the population of indicator species : Saiga antelope (*Saiga tatarica*) from 35 to 70 individuals , Goiterred gazelle (*Gazella subgutturosa*) from 200 to 300 individuals and Bustard hawbar (*Chlamydotis undulata*) from 30 to 70 individuals by end project.

110. Dengizkul Lake State Refuge: the project will support a better alignment of the research and monitoring capacities with the Management Plan objectives. Due to budgetary constraints, the Management Plan is only partially implemented. The environment inspection and monitoring are covered by the staff of the Bukhara Regional Department of Ecology and Environmental Protection and the regional division of State Committee on Ecology and Environmental Protection. Although the staff has the main information about the important habitats and species and environmental processes, and threats (such as lake siltation due to soil erosion and transportation of sediments in the lake) there is basically no research activity going on and no professional training, which is hampering the review and adaptation of the current management plan. The project will therefore support the strengthening of the research and monitoring capacities and legal enforcement and patrolling. The project will ensure sustainable land use management in the buffer areas (sustainable pasture management around lakes and forest shelter belts to prevent further degradation and soil erosion around the lakes) and the work will be carried out under Output 2.3, 2.4 and 2.5.

111. Sudochoye Refuge: The Sudochoye System of Lakes (proposed new PA) will expand the existing Sudochoye Refuge, aligned with the new Resolution of the President of Uzbekistan (March 2019) which adopted the "Roadmap for establishment of the State Refuge "Sudochoye System of Lakes" on the basis of State Refuge Sudochoye". Measures to strengthen management effectiveness will be focused on zoning and management planning, delineation of functional zones on the ground, and building staff capacity for monitoring and research, patrolling and legal enforcement.

112. The PA will monitor key indicator species and stabilisation of their nesting areas : white headed duck (*Oxyura leucocephala*) expected to reach 5 nesting pairs by end project, flamingo (*Phoenicopterus roseus*) expected to stabilise at 5 nesting pairs and saker falcon (*Falco cherrug*) will stabilise at least at 5 nesting pairs by end project. This will greatly depend however on a stable hydrological regime and sustainable ecological flow to the lower Amudarya delta. The project's activities aiming at improved zoning, including the creation of a new PA including the existing Sudochoye Refuge) will be based on preparatory assessments which will include the analysis of the existing eco-tourism potential (according to the applicable legislation). The project will aim at involving local communities, creating awareness and understanding on the potential of ecotourism activities as a mean to sustainable and biodiversity friendly development in buffer and production zones.

Outcome 3.2 Lake, wetland and riparian corridor biodiversity mainstreamed in sustainable land-use; 49,300 people (including 14,780 women) directly benefit economically from improved sustainability of livelihoods.

³² GIZ Report "Overview of possible measures to prevent conflict between the Bukhara deer and the local population" 2019

113. The project will use GEF resources to improve the biodiversity mainstreaming in the surrounding geographies of the targeted PAs and IBAs/KBAs by ensuring adequate PAs zoning based on spatial and integrated landscape planning (under Output 2.2) and demonstration of sustainable agricultural practices in production landscapes (under Outputs 2.3;2.4; 2.5) that will maximise livelihoods opportunities without undermining biodiversity. To reduce or eliminate possible conflicts, the project will employ participatory approaches and will involve local communities. By proactively supporting the local communities to develop local revenue-generating activities, making use of the natural features of the local landscapes and biodiversity, the project can significantly strengthen community support to the existence and sustainable functioning of the nearby PA.

Output 3.2.1 PA buffer zones and corridors identified, planned and mapped through integrated district land use management plans (coordinated with Output 2.2) and implemented with supporting regulations.

114. The project will support the identification and delineation of core areas and functional zones for two new PAs: Southern Ustyurt National Nature Park (IUCN II) and Central Kyzylkum National Park (IUCN II) and the establishment of a conservation zone within the existing Kyzylkum State Reserve (IUCN Category I). The new PAs zoning will represent, in fact, a stage in the management planning under Output 3.1.1. implemented in coordination with the spatial and land use planning under Output 2.2. Functional zones and adequate regulations will be established for all the proposed PAs according to their respective IUCN categories. The project will involve participative approaches and constant community outreach, with the support of multi-disciplinary teams of experts, to avoid or reconcile multiple uses and users' interests. Zoning the new proposed PAs Southern Ustyurt National Nature Park (IUCN II) and the Central Kyzylkum National Nature Park (IUCN II) and delineation of a conservation zone in the exiting PA Kyzylkum State Reserve (IUCN I) will involve the following proposed activities:

- Identification of biodiversity values, inventory of natural resources, inventory of species and habitats, land use types and socio-economic assessments which will be done in coordination with the integrated spatial and land use planning in the four districts. . Species and habitat mappings will identify potential gaps in the PAs system in order to effectively conserve biodiversity, considering the potential for ecosystem change and ecological shifts due to climate change impact.
- Development of a zoning scheme, in which decisions are made about the multiple uses of the territory. The first phase will be usually to delineate the core zones, based on analysis of the optimum wildlife and habitat's ecological carrying capacity, in case of Southern Ustyurt and Central Kyzylkum and an improved conservation area for Kyzylkum State Reserve (IUCN I). This will provide for a maximum level of protection of the key species and habitats, determining a sufficiently large ecosystem that can sustain a breeding population of key species and their support systems. Optimum collaborative spatial planning will involve local stakeholders and will promote land neutrality principles and ecosystem approach.
- The next phase is to establish buffer zones for the new PAs for both Southern Ustyurt and Central Kyzylkum, where there will be fewer restrictions and guidelines will be provided to mainstream biodiversity friendly agricultural practices (these activities are linked with those under Output 3.1.1) . South Ustyurt legal protection and functional zones with respective regulations and enforcement capacities, will facilitate mainstreaming biodiversity into fishery, tourism and oil and gas extraction sectors. In case of the new proposed Central Kyzylkum PAs, the zoning scheme and the new legal protection regime will mainstream biodiversity in tourism and agriculture sectors. The project will develop standards for the natural resources use protected areas with Refuge status. Boundaries of core conservation areas and buffer zones will be physically demarcated (e.g. stone cairns, concrete markers, fencing, signage etc).

Output 3.2.2 Training and capacity strengthening of local environmental inspectorates and border security

115. The project will support delivery of trainings to all target PAs as well as the overarching PA management authorities. The effective implementation of activities under component 3 are expected to ensure that, compared to the 2020 baseline values, the METT scores for the individual target PAs on average increase by approximately 20%. The training sessions will be organized by the Centre for Retraining and Advanced Training of Employees, working in the field of Environmental protection, under the State Committee on Ecology and Environment protection. The project will build on the knowledge products generated under previous projects such as the GEF project (ID 90383) "Sustainable natural resource use and forest management in key mountainous areas important for globally significant biodiversity" and GEF Project (ID 2111) "Strengthening Sustainability of the National Protected Areas System by Focusing on Strictly Protected Areas" and "Mainstreaming Biodiversity into Uzbekistan's Oil and Gas Policies and Operations" as well as other educational resources developed over time.

116. The project will conduct an initial Training Needs Assessment (TNA), and will be particularly focused on training the environment inspectors and staff of the The Inspectorate for Control over Protection and use of Biodiversity and Protected Areas (Gosbioinspection) under the State Committee for Ecology and Environmental Protection inspectorates and border security alongside PA rangers, PA staff and border police staff in order to strengthen monitoring and enforcement. The project will advocate for women employees and PAs staff participation. The main activities will include: (i) design, develop (including materials developed under previous GEF projects) and implement a comprehensive patrol training programme (including patrol planning, mapping, GPS technology, data collection, animal and plant identification, search and arrest, use of firearms, human rights and interaction with local communities; communication, first aid, physical strength, legislation etc). The training will include a specific module for rangers, on Local Communities and Cultures, in order to strengthen understanding on community rights and needs; respect to human rights and empowering communities to manage and protect wildlife and critical habitats.

117. The project will implement 3 trainings/year for 1st and 2nd year and 1 training for each of the remaining years of the project (year 3,4,5) targeting inspectors, PA rangers and border police officers. Training topics will be identified based on a Training Needs Assessment. The project will facilitate regular meetings between PA managers, ranger patrol staff, communities, inspectorates, border security, in and around the protected areas to analyse trends in monitoring and legal compliance and collaboratively address ongoing threats, including related to cross-border migration of wildlife. With the project support, the lessons learnt and best practices in the development of collaborative solutions that include full participation of local communities, and inter-institutional collaborations between PAs managers, PA inspectors and border security will be developed and disseminated through the awareness and KM activities under Component 4. Regular working meetings between heads of protected areas, inspectors, representatives of local communities and other stakeholders will be organized, aimed at discussing and exchanging ideas on the effectiveness of patrolling, possible ways of engaging local people in joint conservation and/or monitoring activities and keeping biodiversity values of the national borders intact.

118. There is a critical need for protected areas to move away from the approach where local communities largely experience conservation efforts through law enforcement operations. The project will therefore adopt a more collaborative approach. The community outreach efforts will focus on raising awareness of the necessity to keep financial and technical support provided to support the social and economic development of villages (such as nature-based ecotourism development, improved productivity of crops and pastures, development of community-based hunting packages and improved access to the markets) linked/aligned to specific pre-determined conservation outcomes (such as better control over poaching, more sustainable levels of fuel wood collection, reduction of livestock numbers in sensitive areas, adoption of non-destructive measures to control predators etc.) in protected areas. For the Protected areas situated in relative proximity to border areas, which are under the direct surveillance of the Committee for State Border Protection, there is a need to work closely with border guards and national security officers to ensure that ongoing military exercises will be conducted in such a way that the biodiversity values of the national borders will remain unspoiled.

119. Discussions held at PPG stage with PA managers highlighted the need for targeted PA research and monitoring especially for the new PAs staff, and to respond to this need, the project will support strengthening of these capabilities and support to the organization of 2 training workshop per year to ensure that all staff working in protected areas have a good understanding of the area, its functions and of basic standard of good and safe practice, biodiversity conservation and planning. In addition, the project will implement 1 training every year for all PA managers and State Committee on Ecology and Environmental Protection staff, on community engagement and ways of working with communities and supporting their alternative livelihoods in buffer areas, PA contextualisation in the surrounding geographies and development of ecological corridors with community support. The project will ensure that PA staff has access to online learning materials, will translate key materials (e.g. IUCN good practice guidance) into national language and will ensure that visiting experts and consultants share their skills and knowledge when they work in protected areas.

120. Output 3.2.3 Sustainable livelihoods supported in KBA buffer zones and corridors (e.g. fast-growing plantations as alternative to logging; cattle grazing rotation and use of distant pastures).

121. Maintenance of biodiversity of habitats, species and varieties in the agricultural landscape protect against disease, pests, climate change, facilitates rangeland biodiversity, maintains soil fertility and safeguards vital resources for local livelihoods. However even though a portion of these benefits will accrue back to an individual farmer, there is currently insufficient public and private investment to develop small and medium-size businesses based on sustainable pasture and forest management due to a perception of delayed economic returns.

122. The project will support private sector, rural entrepreneurs and will work with the Council of Farmers, Dekhan Farms and Households to create awareness on the benefits of LDN/SLM measures and jumpstart investments into efficient

irrigation measures, sustainable pastures and forests management measures and land restoration measures (Outputs 1.2; 2.3; 2.4 and 2.5). In addition, the project will work with other national counterparts to amend current Regulations or draft new provisions that will facilitate subsidies to farmers and agricultural producers who are applying SLM measures.

123. The Council of Farmers is managing a State Fund to support farmers, based on the resolution of the President of the Republic of Uzbekistan April 26, 2018 No. PP-3680 “On Additional Measures to Improve the Activities of Farmers, Dekhkan Farms and Owners of Private Lands”. The Fund will spend \$38 million worth soft loans disbursed through three main banks: Microcredit Bank, Agro Bank and Halbank supporting innovative activities in agriculture sector, introduction of new types of agricultural products and technologies, implementation of state programmes and other projects conducive to agricultural activities in the country. The soft loans are released from the Fund to the Banks at 11% interest rate and from the Bank to the farmers at 15% interest rate (this contains the Bank’s margin of 2%). In 2019, the loans were provided at a 50% refinancing rate of the Central Bank of Uzbekistan, at an interest rate of 7% that is. Since January 2020 however, the State compensation has been removed and loans are issued at an interest rate of 15%. Although the Fund does not target SLM measures in particular, these measures can be financed through the Fund.

124. It is expected that the project’s awareness raising efforts supported by the partnership with the Council of Farmers and its network spread over the entire country’s territory, as well as the incentives provided through the Micro-scheme will increase the farmers’ understanding of the benefits that sustainable agricultural practices can bring. The PPG interviews conducted with the representative of the Council of Farmers and with farmers in the field, highlighted that SLM measures such as pasture management and forest management, land restoration measures, are not a priority *per se* for investors and farmers, due to the lack of awareness on the benefits and Return on Investments (RoI) and lack of technical knowledge on the implementation of SLM measures. Based on the preliminary discussions and agreement with the Council of Farmers senior management, several activities are proposed in order to set up a Micro-scheme for supporting farmers’ livelihoods and incentivise them to invest in LDN/SLM measures. The Micro-scheme support for farmers will consist of two elements: (i) a soft loan (from the Fund disbursed via one of the local banks) directed towards SLM practices promoted by the project and (ii) agro-environmental subsidies from the project . The GEF project resources will be used to provide for technical assistance for the development of the farm business plans and bank applications; technical guidance on suitable SLM measures in the field and methodologies; subsidies for efficient agriculture machinery and equipment necessary to implement these SLM measures; technical assistance for monitoring of ecological and assessment of the economic benefits.

125. Implementation of the proposed Micro-scheme will include the following activities:

- Formalized agreement with the Council of Farmers through a Memorandum of Understanding (MoU) between UNDP and the Council of Farmers will be signed, with clear specification on the scope of the partnership, roles and responsibilities. The Project Board will approve the: (i) modality of cooperation with the Council of Farmers, (ii) criteria of the selection of farmers’ applications, (iii) grant monitoring mechanism (iv) Grant Agreement Template including mandatory provisions for application of agreed SLM measures and (v) the final list of selected applications. The MoU will include the selection criteria (suggested below) and the monitoring mechanism of the grants that will track results and account for the ecological and socio-economic benefits. In addition, UNDP on-granting provisions will be observed. (*Annex 27: On-granting provisions applicable to the Council of Farmers aligned to UNDP Rules and Procedures for Low Value Grants*).
- A Task Force will be set up to organize and manage the calls for proposals/applications and select the applications. The Task Force will include: Project representatives (UNDP and State Committee on Ecology and Environment Protection), Council of Farmers, local authorities (khokimiyats), forestry enterprises representatives, women farmers representative. The project will create advocacy for the promotion of women entrepreneurs in the Task Force and among farmer-applicants.
- Criteria for selection of applications and grant approvals will include a) Implementation of SLM measures such as: pasture management/forest management planning, tactical grazing techniques, restoration of abandoned degraded lands, efficient irrigation systems, crop rotation. b) Cost effectiveness: An ex-ante cost benefit analysis will be part of the proposals design of the local interventions that is intended to be funded. The project’s specialists and Council of Farmers’ economists will help the farmers conduct such cost benefit analysis; The proposed SLM measures are expected to be financed through concessional loans and partly through project subsidies; c)% of women and other vulnerable groups among project beneficiaries; d) Location in the project target areas (as described under Output 2.3; Output 2.4 and Output 2.5 and Annex 24) and/or in areas situated in PAs and KBAs/IBAs buffer or productive zones in the project’s targeted districts e) accessibility of pilot sites for hosting

visits/tours for exchanging best practices f) commitment to sustainability and to maintaining sustainable land management measures after the project will end.

- The project manager, the International Project Advisor and the Task Force will ensure that the Micro-scheme component will finance a variety of sustainable land management measures and efficient water use measures in the targeted project areas in approximately equal proportion (i.e. in order to avoid instances where only drip irrigation technology could be selected for example). The selection criteria of winning proposals and investments will be based on cost-effectiveness, post-project sustainability, potential for replication in other regions and gender focus. The selection of investments will also take into consideration the degree of climate vulnerability and risk to livelihoods, expected water shortages, income distribution (with selected investments prioritizing lower income mid and small size farmers). A screening mechanism will be built into the selection process to ensure due diligence is applied for these SLM proposed investments (as per SESP Annex 6 and ESMF Annex 30). A Grievance redress Mechanism will be implemented as specified in the Stakeholders Engagement Plans, with the Project Board taking full responsibility.
- Organization of the Calls for Proposals in Alat, Karakul and Amudarya and Moynaq districts. Farmers and other agricultural producers will be invited to send applications in which they will describe the SLM measures intended to be applied. The Task Force will analyse the applications and will select eligible applications. The Task Force will work with the project experts' and Council of Farmers' economists and together will organize trainings focused on improving farmers' capacities to calculate cost-effectiveness of proposed SLM interventions. The eligible applications to be financed through the Micro-scheme will be further submitted for approval to the Project Board.
- The investments in the proposed SLM measures will be financed by the State Fund through one of the local banks and will consist in soft loans to participating farmers. The subsidies (micro-grants) from the project will be a micro-grant valuing up to \$3000- \$5,000 depending on the size of the demonstration plot and the SLM measures proposed. This amount will provide for technical assistance for alternative income generation, technical assistance for developing business plans, equipment and machinery. GEF funding will be incremental to the farmer's own contribution and the soft loan. Grant agreements will include a set of monitoring indicators to track ecological and economic benefits of the implemented SLM measures (to be identified based on the cost-benefit analysis for each selected application) and will be monitored in accordance to UNDP Rules and Regulations on Low-Value Grants.
- Implementation of the SLM measures: The Council of Farmers extension service in the targeted districts and the project team will provide technical assistance to the implementation and monitoring of the ecological and economic benefits derived from the implementation of the selected SLM measures. Assistance will be provided to participating farmers in demonstrating the ecological and economic benefits of SLM measures ranging from rotational grazing, planting forest shelterbelts, innovative land restorations measures, sustainable irrigation and crop rotations to increase soil productivity.

126. Furthermore, the project will strengthen the economically active farmers' technical knowledge on rural entrepreneurship and farm business planning through several training seminars, while supporting their participation to other programmes. In this regard, the project may provide technical assistance to farmers, to complete farm business plans and fill in bank applications in order to access other form of microloans or soft loans issued by local financial institutions to implement sustainable irrigation measures, purchase seeds, medicinal herb production, to set up handicrafts workshops, green houses with drip irrigation, fodder crop agriculture. In addition, the project will provide support to rural entrepreneurs who will invest in sustainable farming and pasture management under the programme " Every Family-Entrepreneur" (approved by the presidential Decree June 2018) to set up small businesses that may compensate temporary reduction of livelihoods due to application of SLM measures (such as rotational grazing).

127. The project will further support the mainstreaming of targeted subsidies for farmers by : (i) working with the State Committee for Veterinary Medicine and Livestock Development and with the Ministry of Agriculture to support amendments/proposals to be included in the Strategy for the Livestock Industry, aiming at strengthening the subsidy system by mainstreaming subsidy criteria related to application of SLM measures into the exiting subsidy system; and (ii) by supporting the operationalization of the Concept " On measures for the efficient use of land and water resources in agriculture" (June 2019). The latter, is designed to provide subsidies for the restoration and reconstruction of irrigation and land reclamation, and sowing drought resistant crops based on public private partnerships. Lands are released from agricultural use and freed up for restoration purposes. Therefore, the project will aim at drafting amendments to the existing Regulations in order to include "sustainable land management measures SLM" among the existing criteria for issuing subsidies to farmers. A *Memorandum of Understanding* between the State Committee on Ecology and Environment

protection and the State Committee on Veterinary Medicine and Livestock Development, which is the institution that issues such subsidies will be facilitated by the project in order to issue subsidies to farmers and other agricultural producers for the application of sustainable pasture use and restoration of abandoned land, and for the production of seeds for further sowing and planting of desert forage plants that restores land productivity, including pasture productivity and stabilizing moving sand.

Component 4: International Cooperation and Knowledge Management

128. This component combines cross-cutting project activities aimed at increasing awareness and technical knowledge. There is increasing awareness, understanding, and political will in Uzbekistan to address the water management problems linked to the Aral Sea ecological disaster, including improving the management of irrigation water drawn from the Amu Darya river. However, the general level of awareness and understanding of land degradation issues in the region is still not sufficient to catalyze rapid and comprehensive changes to the water management regime. There are even lower levels of awareness and understanding about climate change risks and potential future impacts to the region. Therefore, the project will carry out an intensive education and awareness raising campaign targeting decision-makers at local and regional levels. An education and awareness raising campaign about key biodiversity values and sustainable land-use management regimes and regulations will also target the local resource users. Within Component 4, the project will support the government of Uzbekistan, the scientific community and NGOs in developing and negotiating decisions on the Aral Sea basin at the international level. The project's Implementing Partner (the State Committee on Ecology and Nature Protection) has a solid experience in awareness and information dissemination activities and will provide a platform for project results dissemination and liaison with stakeholders. The project will therefore contribute to the multi-stakeholder dialogue for sustainable national programming through the IFAS and the UN Multi-Partner Human Security Trust Fund for the Aral Sea Region in Uzbekistan, where it concerns mainstreaming of the integrated approach towards water resource management and climate-smart land use. Project experience will be shared and replicated through national and international learning networks of UNCCD, CBD and GEF.

Outcome 4.1 Increased level of awareness and technical knowledge among local communities about LDN and key biodiversity values of the Aral Sea Region in connection with the water use patterns

129. This outcome will focus on prioritised issues, aiming at building a critical mass of understanding of the issues under the project scope: e.g. Land Degradation Neutrality, Integrated Land use Planning, Sustainable Land Management, Protected Areas and key biodiversity values, wetland ecosystem services etc and awareness gaps as identified by the baseline awareness questionnaires conducted at PPG stage. The analysis of the targeted surveys conducted at PPG stage have concluded that on average, the general awareness of the local natural resource users on the importance of sustainable water management and biodiversity for their livelihoods and on the challenges posed by land degradation and water scarcity is situated between 50-55%. However, more than half of the respondents among local farmers and/or agriculture producers are unaware of technologies or methods to address land degradation; they have heard of (and/or have had experience with) drip irrigation as a water saving technology.

130. Decision-makers, employees of ministries and departments involved in agricultural and water management and environmental protection, as well as specialists of partner organizations have a certain understanding of the Integrated Natural Resources Management (61%), of ecosystem services provided by wetlands (83%), of water saving technologies (83%) and of technologies to combat land degradation (89%). However, the provided answers are not clear-cut and do not always cover all of the important aspects. Approximately 72% of the surveyed specialists from water and agricultural sectors are not familiar with the concept of Land Degradation Neutrality (LDN). Analysis of the answers related to level of understanding of the importance of wetland and riparian ecosystems in the Aral Sea basin showed that there is a general understanding of importance of their conservation and supply of sufficient water for their survival (please see Annex 17 Knowledge management Plan for more highlights of the surveys).

131. Several trainings seminars have been included under this outcome in order to improve to some extent the local natural resource users' and managers' knowledge on LDN and Sustainable Land Management (SLM) measures, wetland ecosystem services, ecotourism and sustainable water management. A wide array of communication products will be developed and disseminated to local farmers and local authorities, through awareness, trainings and information events coupled with farmers school fields in targeted project districts.

132. All the communication materials will be gender sensitive and will highlight the different ways men and women have access to natural resources and are involved in decisions over natural resource planning and use, highlighting the increased vulnerability of women, youth vulnerable groups among a community in case of food insecurity and droughts. Part of the

project's Knowledge Management Strategy, the project will prepare a *Scaling Up and Replication Strategy*, ensuring that the valuable knowledge generated during the project implementation, documenting the trailblazing efforts driving progress towards LDN and integrated land-water management in production zones, will be replicated to other regions in Uzbekistan. Knowledge management will be implemented to support learning and upscaling and will promote up taking of LDN compatible sustainable land use and pasture management demonstrated by the project.

Output 4.1.1 Education and awareness raising campaigns for local resource users about key biodiversity values and sustainable land-use management regimes and regulations.

133. Work on this output will include i) an awareness component to promote information and knowledge exchange and increase awareness and ii) a training component entailing a suite of workshops and education events aiming at strengthening the technical knowledge of farmers and natural resource users, local authorities and water managers on biodiversity friendly practices in production zones.

134. The awareness raising component will include dedicated events in each targeted district, initially to raise awareness on LDN and the importance to local livelihoods of mainstreaming biodiversity in agricultural practices, proposed as follows:

- Four project launch events and back to back awareness seminars on LDN, SLM, wetland biodiversity and ecosystem services and sustainable water management (including water pricing issue and the consequences of irrational water use in irrigated areas) for local stakeholders in each district, with representatives of local communities from villages situated in the proximity of PAs, KBAs/IBAs.
- Twenty awareness and education events organized in provinces of LADAB landscape (Bukhara, Khorezm and Karakalpakstan) benefiting farmers, herders, community members, extension service and local authorities, to trigger broader upscaling and replication of the project experience, on different topics (i) LDN/SLM measures and benefits to local communities (ii) Importance of addressing *water-land* NEXUS in arid environments (iii) Wetlands and lakes ecosystem services that supports livelihoods including potential for ecotourism (iv) PAs system and biodiversity management, the role of local communities to preserve key biodiversity values. These events will be organised in cooperation with the Council of Farmers, local State Forestry Enterprises and local authorities, PAs managers and State Committee for Tourism, the Bird Conservation Society etc. and supported by a specialized media/PR company and will consist of thematic exhibitions and knowledge fairs, round table meetings, farmers-to-farmers interactions in the targeted villages, involving visits to farms participating in the micro-scheme (Output 3.2.3) and exchange of experience between the villages where SLM measures will be implemented. Through the Council of Farmers, the project's experiences and best practices can be scaled up and the project will reach out to other regions in Uzbekistan.
- Two community outreach events in Bukhara region, organized jointly with FAO project "Sustainable Forest and Rangelands Management in the Dryland Ecosystems of Uzbekistan".
- The project's final conferences (proposed to be organized in the targeted Bukhara and Karakalpakstan regions and in Tashkent) will present project results, a video documentary, generated knowledge and best practices codified and captured into knowledge outputs. More importantly, the final conference in Tashkent will invite the main local authorities (khokhimiyats) of all the 13 regions in Uzbekistan. The project will prepare and present a Scaling-up Strategy and Action Plan, endorsed by the Project Board, entailing all project's generated knowledge and knowledge products as well as an Action Plan with proposed measures, institutional roles and responsibilities and investments needed for scaling up the project demonstrated good practices in other regions of the country.
- Knowledge sharing generated within the project will include information, brochures and guidelines describing practical application of SLM/water saving measures at farm level highlighting economic and ecological benefits derived from different measures: farm level pasture management, land reclamation measures on marginal saline lands, farm level alternative livelihoods, farm level model business planning, water saving technology at farm level etc. Furthermore, together with the Information Department of the State Committee for Ecology the project will develop short informative video documentaries on the project results and will disseminate the information through national media. Dedicated project website with moderated forum linked with *Telegram* social networks of pasture users groups and water users groups will be developed. The project will further support dissemination of project results and upload evidence on the impacts and effectiveness of LDN compatible integrated water-land management available knowledge platforms: the Regional Environmental Center for Central Asia CAREC Knowledge Hub, Central Asian Countries Initiative for Land Management FAO CACILM and the World Overview of Conservation Approaches and technologies WOCAT platforms.

135. The training component will include targeted seminars to increase technical knowledge in pasture management and rotational grazing techniques, water management methodologies and technology and biodiversity friendly practices in buffer and production zones in the PA/KBAs/IBAs surrounding geographies. The beneficiaries are expected to be mainly farmers (dekhan farms), Water Users Associations (WUAs), farmers extension services, rural women/ youth and representatives of local authorities:

- Approximately 16 training workshops on sustainable water management for Water Users Associations WUAs, in each district, will be organized jointly with the Training Centres of the Basin Irrigation System Authorities (BISAs) and Ministry of Water Resources, and KRASS (Khorezm Rural Advisory Support Services) on the following topics (i) Irrigation requirements and timing, agricultural technology, use of fertilisers and crop rotation techniques; LDN concept explained (ii) water saving technologies at farm level (iii) cleaning and maintenance of farm irrigation and drainage network, preparation of fields using modern methods of soil treatment (iv) IWRM principle in water basin-concrete applications and what it means for farmers.
- A number of 8 training workshops and 4 Training of Trainers ToT will be organized jointly with the Council of Farmers and State Committee for Ecology and Environment Protection. The training modules and delivery of training seminars will be supported by the project experts and by different partners: Tashkent State Agricultural University, Centre for Agri-Information, KRASS (Khorezm Rural Advisory Support Services) and Businesswomen Association in Uzbekistan, state forestry enterprises, State Committee for Tourism and local authorities. Training topics could cover: i) Basic steps to successful rural entrepreneurship, farms business models, promotion of women entrepreneurs, responsible investments in agriculture and ecotourism (iii) SLM measures to address land degradation through integrated water-land management (iii) Step by step sustainable pasture management and agroforestry (iv) Wetland ecosystem services and livelihoods (v) LDN and sustainable land use planning (vi) Innovative land restoration in remote marginal areas, LDN compatible crop rotation in irrigated land to restore soil productivity. Training on SLM measures will be delivered in the context of achieving land degradation neutrality (LDN).
- Technical knowledge will be further strengthened through at least 4 Farmer Field Schools (based on FAO model) which will be organized in each district on sustainable pasture management and tactical grazing and agroforestry techniques. The project will further hold at least 4 local training sessions for rural women and youth with the support of Businesswomen Association in Uzbekistan and round table meetings with “Hunarmand Association of Folk Artists, Craftsmen and Artists in Uzbekistan”, on alternative livelihoods generation such as medicinal herb production, local handicraft (basket weaving, wood carving), green house agriculture, fodder crop agriculture. Basket weaving in particular, engaging rural women in all stages of production (from harvesting to preparation of material for weaving, to weaving and painting or varnishing) is known to provide a reliable additional income for rural families and has potential for scaling up. The project will also include optimisation of the basketry and medicinal herbs value chain and business planning, innovative technologies for harvesting, and will support exhibition organization. Guidelines for local farmers and brochures on LDN compatible pasture and forest management will be developed. Women participation in these trainings will be promoted and the project will ensure that 30% of the total beneficiaries will be represented by women and will include dedicated sessions for women entrepreneurs.

Output 4.1.2 Awareness campaign for sustainable water use targeting decision-makers at local and regional levels

136. The project will be supported by a PR/media specialized company to tailor an awareness raising campaign and communication messages to relevant decision makers in water sector, at national, local and regional levels. Analysis of expert assessments, available information materials and results of the awareness questionnaires show that decision makers (ministry employees, departments involved in agriculture and water management, environment protection) have some knowledge on Integrated Water Resource Management (IWRM) principles (61%), ecosystems services provided by wetlands, lakes and riparian zones (83%) and water saving technologies (83%). However, their awareness is limited to rather general notions. There is insufficient understanding of the negative consequences of the unsustainable water management and the insufficient amount of water flow towards the Amudarya delta especially in low water years. Mainstreaming the required ecological flow into water management in Amudarya River basin can be done if different tradeoffs in water allocation among multiple water users³³ will be addressed and if the necessary awareness on the benefits of managing water

³³ “Incorporating environmental flows into water management in the Amudarya river delta”(2003-2007) <https://www.arcgis.com/apps/MapJournal/index.html?appid=a64d4f5c870f44729858a639cb06928b>

resources sustainably will be in place. Previous projects such as the global project ValuES: Methods for integrating ecosystem services into politics, planning and practices (GIZ) have demonstrated that acknowledgement of the values of ecosystem services brought to different sectors of economy and local livelihoods was key to identify trade-offs among multiple water users.

137. The project will design and implement a targeted awareness campaign for local and national water and agriculture management authorities (ministries, BISAs, ISAs, other agencies) emphasizing the importance of equitable water releases among multiple water uses and the importance of maintaining the integrity of the lakes, wetlands and riparian areas in the Amudarya Basin. Working in coordination and jointly with the GEF UNDP Turkmenistan Project “Conservation and Sustainable Management of Land Resources and High Value Ecosystems in the Aral Sea Basin for Multiple Benefits”, the campaign will include Turkmenistan officials in order to raise awareness on the need to harmonise water efficiency measures in Amudarya River Basin. Various seminars and conferences, online outreach tools will be organized, exploring media partnerships for targeted TV and radio broadcasts. The project experts working on the development of the Integrated Water Management Plans and estimation of ecological flows for lakes and wetlands, will provide technical inputs into the information background materials. At national level, the awareness campaign will leverage information materials and seminars with the support of the IFAs and the Ministry of Water Resources (and respective BISAs branches in the territory). The awareness campaign will be implemented in coordination with activities under Output 1.1 related to the development of the Concept for Water Availability in lower reaches of the Amudarya River, in close consultation with IFAS, and will foster multi-stakeholders round table meetings and discussions around water availability and sustainable water use among multiple water users. The awareness campaign will be aligned with the current Government’s efforts to promote the new Concept for Development of Water Sector in Uzbekistan (2020-2030), which identifies the focus areas and measures to meet the growing water consumption needs in the country and promotes sustainable use of water resources and the implementation of principles of Integrated Water Resources Management (IWRM).

Outcome 4.2 Uzbekistan’s cooperation in the international environmental programming for the Aral Sea basin strengthened

138. The project’s work under this outcome will seek to support Uzbekistan’s capacity and participation into regional cooperation in the Aral Sea Basin. Water negotiations in the Aral Sea Basin are complex and often difficult and failure to achieve consensus may have bearing on the common cooperation agenda in the region. Strengthened technical capacities for effective participation into the regional water management and development cooperation agenda is considered very important by the government representatives. Institutions such as International Fund for Saving the Aral Sea IFAS and its various platforms helped prevent conflicts. To implement a common platform and strategy for advancing regional and international cooperation in the Aral Sea region in 2018, the UN Multi-Partner Trust Fund for Human Security for the Aral Sea Region in Uzbekistan (MPTF) was created, advancing environmental and social security aspects associated with the access to basic utilities, social protection, water, sanitation, and education. International donors and development organizations are also a driving force behind many conferences and meetings that serve as platforms for political dialogue. Even though these conferences do not produce binding agreements, they contribute to regional confidence building, the reduction of mistrust and the promotion of international principles and best practices³⁴.

Output 4.2.1 The Government, scientific community and NGOs supported (e.g. through preparation of science-based technical papers, communications/negotiations with other Aral Sea basin countries, and international advice where relevant) in developing and negotiating decisions on the Aral Sea basin at the international level.

139. In support of this output and in coordination with Output 4.2.2, the project experts will develop a series of analytical reports to strengthen the technical knowledge and capacity of the participating country representatives in different regional negotiations and meetings organized by the IFAs, that will also showcase the project’s demonstrated best practices and will disseminate the knowledge generated on sustainable water management, different analysis and estimations on the needed water releases to maintain the integrity of Amudarya delta’s lakes and, and on the importance of an integrated land/water management in arid areas. In coordination with the GEF UNDP Turkmenistan Project “Conservation and Sustainable Management of Land Resources and High Value Ecosystems in the Aral Sea Basin for Multiple Benefits”, the project will support joint meetings of decision makers from Uzbekistan and Turkmenistan, representatives of IFAS and officials from ministries and state committees with mandate in water and land management, in order to promote

³⁴ <https://www.routledge.com/The-Aral-Sea-Basin-Water-for-Sustainable-Development-in-Central-Asia/Xenarios->

sustainable water management in Amudarya River Basin and harmonization of water-land management measures.

Output 4.2.2 Donor/private sector/Government platform on replenishing the UN MPHSTF functions resulting in agreed new projects/activities focusing on integrated approaches towards water resource management and climate-smart land and resource use.

140. Under this output, the project will support participatory multi-stakeholder dialogue and programming workshops focusing on integrated water resources management and development of project concepts to be submitted for funding under the UNMPHSTF. The work under this output will be linked to Output 2.5 and the Innovation Challenge which is expected to identify innovative land restoration projects that have merit and that could be further scaled up or replicated.

141. The project will contribute to multi-stakeholders dialogue for sustainable national programming through the IFAs and UN Multi-Partners Human Security Trust Fund for the Aral Sea (UNMPHSTF) and will organize 5 education and awareness Water Diplomacy seminars in cooperation with the IFAS and the experts of the United Nations Regional Centre for Preventive Diplomacy in Central Asia (UNRCCA)³⁵, targeting government officials representing Uzbekistan in regional negotiations, NGOs, Academia, Women Groups etc. The seminars will showcase the project experiences and will provide a platform for moderated participatory dialogue and learning on different topics including (i) gender sensitive, participatory and sustainable water management issues in the context of climate change and progressive land degradation (ii) mainstreaming integrated LDN compatible water-land management into regional programming and (iii) water diplomacy in the context of Aral Sea Basin. Furthermore, the project will compile the analysis and information into the Proceedings on Regional Water Diplomacy and Water Management Programming in the Aral Sea Basin and will develop a set of Recommendations for the government's officials conducting negotiations on regional water management, approaches on water diplomacy and on integrated water management regional programming that supports advancing the sustainable development (SDG) agenda in the Aral Sea basin.

142. Component 5. Monitoring and Evaluation

Outcome 5.1 Project results properly monitored and evaluated

Output 5.1.1 Set of monitoring activities implemented

143. During the project implementation the M&E will be conducted following GEF and UNDP guidelines and according to the M&E plan described in Section V of this project document. The main tasks of the M&E plan include an inception conference/workshop and report, annual monitoring of indicators in the project results framework, annual project implementation reports (PIR), ongoing monitoring of environmental and social risks and implementation of SES requirements, supervision missions, updating GEF core indicators and METT (at midterm and project end), monitoring of Global Environmental Benefits, ongoing monitoring of the Stakeholder Engagement Plan and the Gender Action Plan, Project Board meetings, oversight mission by the UNDP-GEF team, mid-term and terminal GEF7 Core Indicators and METT updates, an Independent Mid-term Review (MTR) and an Independent Terminal Evaluation (TE), project final conference. The Project Manager will ensure the collation of all the project evaluative knowledge and information, supporting the project's adaptive management, and final project report.

3.2 Project area and sites

144. The project will be implemented in the Lower Amudarya and Aral Basin (LADAB) landscape. A detailed description of the targeted landscape is included in Annex 22: Target Landscape Profile.

3.3 Alignment with GEF focal area strategy

145. The project follows the Four-year Framework of the Program Priorities for GEF-7 and fully responds to the guidance that the "Framework encourages integrated approaches to project design", as well as the GEF growing mandate to support activities that promote synergies across its focal areas aligned with an integrated approach to generate multiple global benefits. The project is expected to generate global environment benefits under two GEF focal areas, by tackling the underlying drivers of land degradation and biodiversity loss. Thus, the project takes strategic direction from the GEF-7

³⁵ Established in 2007 to enhance dialogue and build confidence among the five CA countries

programming guidance for the land degradation and biodiversity focal areas.

146. With respect to land degradation the project links directly to Uzbekistan’s commitment under the UNCCD to achieve its national Land Degradation Neutrality (LDN) targets (linked at the global level to the Sustainable Development Goals target 15.3) and has been designed in line with the UNCCD LDN Checklist. The project’s Component 2 is programmed for a synergistic approach aligned with LD Objective 1: Support on the ground implementation of SLM to achieve LDN and BD focal area Objective 1 “Mainstream biodiversity across sectors as well as landscapes and seascapes”. Under Component 2 the project will promote LDN compatible integrated and participative land use planning in production zones and will facilitate local communities and entrepreneurs access to affordable financing to restore and maintain soil productivity and promote biodiversity friendly agricultural practices.

147. With respect to the biodiversity focal area the project directly targets numerous KBAs/IBAs within Uzbekistan’s portion of the Aral Sea basin and Lower Amu Darya. These are also areas where the national strategy for development of the protected areas system foresees the establishment or expansion of protected areas. The project focuses on the lower Amudarya and Aral Sea Basin (LADAB) covering three provinces Bukhara, Khorezm and Karakalpakstan. Most of the KBAs/IBAs within LADAB landscape coincide with the water-based ecosystems within the wider desert landscape – the lakes, wetlands, and riparian corridors targeted by the project, and are mostly at risk to disappear due to water shortage exacerbated by the climate change.

148. The project Component 3 is programmed for the BD focal area within its Objective 2 “Address direct drivers to protect habitats and species”, with its spatial planning elements addressing Objective 1 “Mainstream biodiversity across sectors as well as landscapes and seascapes”. The main entry point to address direct drivers of biodiversity loss will be “Improving Financial Sustainability, Effective Management, and Ecosystem Coverage of the Global Protected Area Estate” where the project will contribute to the achievement of global and regional targets for the targeted GEF 7 core indicators for the BD focal areas. Uzbekistan has a strategic national goal to increase its national protected area coverage from 12% of the national territory to 17% of the national territory by 2025. The proposed project will assist and support the implementation of this goal, particularly through increasing coverage of protected areas for lakes, wetlands and riparian corridors in the Aral Sea basin. The project will also work to strengthen the capacity of existing PA covering the most significant KBAs in the country.

3.4 Incremental Cost Analysis (Baseline vs Alternative Scenario) and Global Environmental Benefits

Baseline	GEF scenario and increment
Component 1: Coordinated water management as basis for LDN and conservation	
<p>In the baseline scenario, most irrigated lands are degraded due to poor water management, non-observance of the irrigation norms and more than 40% water wastage. There is little or no inter-sectoral coordination and reconciliation among multiple water users. Investments in hydrotechnical facilities are sub-optimal; operations of these reservoirs and dams do not consider ecosystem needs and are not suited for “water-saving” agriculture that the project strives to promote as an alternative to cotton-production and irrational water use in agriculture. There are baseline initiatives supporting the reconstruction of irrigation facilities and canals.</p> <p>In the current baseline there are many approaches for improved water management and agricultural practices but virtually none is linking improved sectoral production systems with the ecological pillars of the landscape: the lakes, wetlands and riparian corridors. Among key government stakeholders and resource users there is</p>	<p>GEF resources will be incremental to the current government and donor led efforts to promote water and land management and invest in irrigation system infrastructures (some of which supporting lakes and water bodies). The project will work to address underlying root causes of land and biodiversity degradation, including the effective management of minimum and maximum water flows.</p> <p>As there is no other initiative linking “water saving agriculture” to the management of minimum and maximum ecological flows to endangered lakes, wetland and riparian zones in Amudarya and Aral Sea Basin, the GEF incremental contribution from the baseline will be significant. The cost of the realization of the following results under Output 1.1 and Output 1.2 can be considered incremental from the baseline:</p> <p>(i) improved information and knowledge base on water use patterns and water availability in different sectors; established climate sensitive irrigation norms and timing; identified water requirements necessary to maintain the</p>

<p>little appreciation for and understanding of integrated resources management that can restore the degraded landscape supporting progress towards LDN for Uzbekistan.</p> <p>There are interstate agreements on the minimum ecological flows; however, these are not observed. No legal provisions guarantee ecological flows towards lakes and wetlands in lower Amudarya delta-vulnerable especially under current climate change induced water shortages and stern predictions. The availability of key data on the water requirements of lakes and wetlands is poor and awareness and technical knowledge on climate smart irrigation technologies is inadequate.</p> <p>The new Water Concept 2030 aims at reforming the water sector, legislation will be finalised by end 2022. There are baseline programmes implementing reconstruction of water infrastructure and improved water resources management.</p> <p>In the absence of the GEF project there wouldn't be a particular focus on improving knowledge and understanding about the volumes of water necessary for the ecological flows to lower Amudarya delta to maintain ecological integrity of lakes, wetlands and riparian zones under the predicted climate induced water deficits.</p> <p>In the absence of the project, there are no prospects of development of a functional coordination institutional and legal framework to promote efficient water allocation among multiple users, aligned with the Integrated Water Resources Management (IWRM) principles and with the LDN/SLM measures in irrigated areas, that reconcile intersectoral water needs and includes mandatory water releases to natural ecosystems.</p>	<p>ecological integrity of lakes and ecosystems in Amudarya delta;</p> <p>(ii) "Integrated Water Management Framework" – a formally approved institutional coordination framework and planning tool for an integrated water management in LADAB landscape, that promotes LDN compatible climate smart "water saving agriculture" on 1,050,910 ha of irrigated areas;</p> <p>(iii) "Integrated LDN compatible and climate sensitive Water Management Plans" in 4 districts- designed to effectively demonstrate at least 10% reduction of water losses and 1% decrease of saline soil per year at 112,180 ha irrigated areas in 4 targeted districts;</p> <p>(iv) a new Concept on Water Management and Releases to Lakes, Wetlands and Riparian Zones – entailing clear analysis and guidelines for the releases and timing of the necessary volumes of water, to maintain the ecological integrity of 957,260 ha lakes and wetland ecosystems in lower Amudarya delta-under implementation through relevant interinstitutional agreements.</p> <p>(v) Investment Plan for the Optimisation of Hydrotechnical Facilities approved and under implementation, for streamlined investments into the modernization and optimization of the hydrotechnical facilities in LADAB landscape for "water saving" agriculture and optimal management of minimum and maximum ecological flow to Amudarya delta;</p> <p>(vi) Water Code includes amendments that will provide for the mandatory implementation of a minimum ecological flow under the climate change induced water deficits scenarios.</p> <p>(vii) Improved knowledge and understanding on the importance of an integrated water-land management aligned with IWRM and LDN principles, strengthening national and local stakeholders' ownership and participation.</p> <p>Baseline: USD 13,000,000 Increment: GEF USD 605,920 Co-financing: USD 40,450,000</p>
Component 2: Sustainable land management for Land Degradation Neutrality in the target landscape	
<p>The government moves away from the dominant cotton cultivation aiming at diversifying the agriculture sector. Released land from cotton cultivation is given to private farmers or other entities for cultivation of vegetables. Pastures are being overgrazed and land allocation follows no integrated land use planning. Continued loss of land productivity and aggravation of land security are expected to rise under the baseline scenario.</p> <p>The LDN as a principle is unlikely to be widely invested in as it is a foreign concept for more than 70% of natural</p>	<p>The proposed contribution from the baseline of this project will be significant, as the project will address land degradation aspects which are currently under looked or not among priorities, such as investments in the sustainable management of pastures and forests and integrated spatial and land use planning to achieve LDN.</p> <p>The costs of the LDN centered Integrated Spatial and Land Use Plans in the 4 targeted districts (Alat, Karakul, Amudarya and Moynaq) and the LDN target setting in Karakalpakstan can be considered incremental from the baseline.</p>

<p>resource managers and specialists. It is even less known at local levels, by farmers and pastoralists. Land use planning is not based on an integrated and participatory way that supports achievement of LDN.</p> <p>Investment in concrete on the ground land use improvements are likely to be marginal under the baseline. The level of financing of sustainable land/water management is inadequate, far from matching the challenges posed by the progressive land degradation in the country. Financing is not targeting sustainable land management(SLM).</p> <p>Karakalpakstan was identified as the land degradation “hot spot” by LDN National target Setting.</p> <p>There are government initiatives to address land degradation especially in Karakalpakstan in terms of afforestation of the drained bed of the Aral Sea.</p>	<p>The effective SLM implementation in targeted areas will be incremental compared to the baseline, resulting in improved condition of 90,000 ha pastures and 1,500 ha restored degraded land. Demonstration of best practices will be undertaken in partnership with local stakeholders and local communities and will increase soil productivity and rangeland productivity as a basis for sustainable livelihoods. In addition, approximately 10,000 ha of tugai/tauranga forests will be sustainable managed and habitat loss will be halted.</p> <p>The project will increase awareness and technical knowledge on sustainable land management (SLM) measures to achieve LDN and will support farmers’ access to affordable financing to implement SLM measures. Increased livelihoods are expected to jumpstart interest into continuous investments into SLM measures.</p> <p>Baseline: USD 3,000,000 Increment: GEF USD 870,620 Co-financing: USD 8,450,000</p>
<p>Component 3: Conservation of globally significant Aral basin biodiversity</p>	
<p>The existing protected areas in the Aral Sea region protect only 1% of endangered species and unique ecosystems. In the project target area, there are 17 KBAs/IBAs but only a small number of them have protected area status, as a result their vulnerability to anthropogenic and climatic pressures will likely be increasing. This is coupled with insufficient financial resources and technical capacities of government institutions to provide for adequate conservation and management of the existing Protected Areas.</p> <p>Biodiversity considerations are not taken into account in land use planning and zoning is often either not established or insufficiently delineated on the ground. Local communities are unaware or have little interest in biodiversity friendly production practices around PAs.</p> <p>The METT capacity scorecards completed during the PPG are showing some identifiable patterns of strengths and weaknesses. In general, issues relating to the protected area legal establishment, core zone boundary demarcation, regular workplan and resource inventory are undertaken in most protected areas to an acceptable standard, which, despite significant gaps, does support to some extent the achievement of the conservation objectives. Activities relating to research and monitoring, and enforcement of legal provisions, are less often undertaken and are also less effective.</p> <p>The current government’s efforts and priorities are aiming at an increase of the area of PAS IUCN category I-V up to 7% by 2021 and 12% by 2030 by increasing, inter alia, the area of forest ecosystems.</p>	<p>The project will address direct drivers of biodiversity degradation and will improve the management effectiveness of the PAs.</p> <p>The project’s incremental value to the PAs estate lies within the envisaged increase of coverage of endangered KBAs/IBAs in the Lower Amudarya and Aral Sea Basin landscape, through the designation of 5 new PAs supported by the project that fully or partially cover 9 KBAs/IBAs. The legally designated 5 new PAs covering more than 3 million hectares will therefore address direct drivers of biodiversity degradation, stabilizing the population of key indicator species. Furthermore, the project will target 5 existing PAs to support approximately 20% improvement in their management capacities, through a series of capacity building, awareness and species centered conservation activities.</p> <p>In addition, significant contribution from the baseline will be represented by the improved PAs zoning and the biodiversity friendly agricultural practices promoted in the buffer and productive zones, therefore securing biodiversity-friendly surrounding geographies around the last remaining “islands of water” in LADAB landscape.</p> <p>Improved and guaranteed minimum ecological flows established and enforced through the project’s work within Component 1, will have a cross-cutting effect and will greatly contribute to the survival of the lakes, wetlands and riparian zones in Amudarya basin and the ecological integrity of valuable habitats and key species.</p> <p>The wealth of knowledge generated by the project’s work will improve the existing PAs database in the country and will</p>

	<p>support further alignment of research and monitoring in the PAs with the management objectives.</p> <p>Baseline: USD 600,000</p> <p>Increment: GEF USD 1,367,620</p> <p>Co-financing: USD 8,740,000</p>
Component 4: Awareness raising and knowledge management	
<p>Although there is an increased general awareness, understanding and political will in Uzbekistan to address water management problems linked to the Aral Sea ecological disaster persist and are linked to the need for improving the management of the irrigation water drawn from Amudarya river and reconciliation among multiple water users.</p> <p>The survey conducted at the PPG indicates an insufficient level of awareness and understanding of the land degradation issues, biodiversity and integrated water-land management. Although the majority of respondents including the local natural resource users have some basic environmental knowledge (50-53%), the results show that there is little or no awareness on LDN, there is little technical knowledge and awareness on the benefits of Sustainable Land Management (SLM) measures and on water saving technologies (although generally the respondents have heard of drip irrigation).</p> <p>Water users understand the importance of ensuring adequate water supply and timely releases to wetlands and lakes (60-72%) however there is a need to increase the knowledge of the water managers on the benefits of wetland ecosystems and on the water requirements needed to maintain the integrity of natural ecosystems.</p>	<p>The GEF incremental value will represent a significant contribution from the baseline in that the project will deploy an extensive education, training and awareness suite of events in order to develop a critical mass of understanding and knowledge of the LDN concept and the importance of the lakes and wetlands for the environment and for livelihoods.</p> <p>An intensive education and awareness campaign will target decision makers at the local and national levels, as well as local natural resource users, in order to raise their awareness and technical knowledge about the key biodiversity values and regulations, and the sustainable land management (SLM) measures ecological and economic benefits.</p> <p>Uzbekistan's participation in, and the role of, the international environmental programming for Aral Sea basin will be strengthened. Integrated approaches to water resource management with reduced water wastage, increased soil productivity in irrigated and non-irrigated arable lands and mainstreaming biodiversity in spatial and land use planning to achieve LDN will be streamlined within national donor funding agenda for the Aral Sea Basin in Uzbekistan.</p> <p>Baseline: USD 100,000</p> <p>Increment: GEF USD 459,088</p> <p>Co-financing: 1,950,000</p>

149. Global environmental benefits

150. The LADAB landscape is strongly interconnected, with multiple ecosystem services dependent on the precious water flowing through the desert steppe and the project's integrated approach generates multiple GEBs. LD benefits come from reduced land degradation and land restoration. The project will provide for improved water management for 1,050,910 ha of irrigated arable land in LADAB landscape, based on an initial demonstration of "water saving agriculture" on 112,800 ha in the four targeted districts. The project will provide sustainable management models for at least 100,000 ha of pastures and forests. The project will demonstrate innovative restoration techniques, and with the support of project partners 1,500 ha of degraded agricultural land will be restored. Targeted support to forest and lake ecosystem restoration, in return, will remove the erosion risk of crop fields and pastures. Carbon benefits will accrue as soil carbon is restored and forest regenerates. The lakes, wetlands and riparian corridors in the LADAB landscape provide ecosystem services, such as climate regulation and air quality, as well as maintaining biodiversity. At the same time, there are vast tracts of degraded land around these areas that can be restored to sustainable production. The project addresses land resources through integrated land use planning, sustainable production and restoration of degraded lands around these lakes and wetlands habitats. The rehabilitation of degraded lands will support the needs of agriculture without further expansion into the riparian and floodplain tugai and turanga forests.

151. Sizable BD benefits are associated with the improved protection and management status on 957,260 ha of KBAs/IBAs, and stable status of many global Red List species. The project will provide for expansion of PA estates by an increment of

3,094,600 ha totally or partially covering 9 KBAs. The GEF investment will significantly contribute to strengthening the management effectiveness of 757,329 ha of existing PAs stabilizing therefore the population of key species and securing valuable habitats. The project will contribute to the national effort toward meeting the Aichi Targets with its incremental effort at preventing the loss of natural habitats and reducing degradation and fragmentation (Aichi Target 5), strengthening management capacity, resilience and financial sustainability of projected areas (Target 11), and restoration and building resilience of key ecosystems and habitats (Targets 10 and 15). The project has been designed using the UNCCD LDN Checklist (*please see Annex 28*). The ecosystem management benefits will be mostly associated with the rationalized and efficient use of water resources for improved management of land, forests, conservation-important lake, wetland and riparian ecosystems, combined with effective nature protection regimes. The wetlands ecosystems will be restored in a few years if a satisfactory water supply and appropriate biodiversity protection are established. The restoration of lake, wetland and riparian ecosystems will come as a natural result of the water discharge regime optimization that will not be under the project's control and won't be completed within the project lifetime

3.5 Local and national project beneficiaries and benefits

152. The envisaged benefits to local and national stakeholders will be interconnected with the aggregated environmental benefits enabled by the project's features: (i) embedded integrated benefits and synergies across focal areas, (ii) mechanisms for integrated decision making and (iii) landscape-scale designed interventions.

153. The project incentivizes local actors away from destructive behaviour through engaging them in alternative economic activities, as well as biodiversity friendly livelihoods around protected areas. Adequate awareness, technical knowledge and access to funding are key to ensuring that stakeholders will be able to adopt innovative, environmental-friendly practices. The project therefore aims at increasing capacity of 300 public sector employees and PAs staff who will be trained in integrated water-land management and biodiversity management. At least 500 local farmers and pastoralists could benefit from the project's Micro-scheme support for livelihoods (under Output 3.2.3) and it is estimated that their income will register at least 20% increase as a result of the implemented SLM measures. This is a conservative percentage, as income generation from recommended SLM measures (*described under Annex 24*) will likely provide more benefits: e.g. according to past donor-supported projects³⁶, application of rotational grazing alone can provide an estimated net profit of up to \$16 per sheep (after subtracting the costs per sheep of about \$8) ; similarly, planting drought resistant crops to enhance forage production and prevent erosion leads to a significant generation of profit estimated at \$243-\$341/ha from the third year onwards, made from selling of seeds and use of hay; whereas the income generation resulted from agroforestry measures as a land reclamation practice, varies e.g. maximal profit may be obtained from cultivation of Russian olive *Eleagnus angustifolia* due to annual selling of fruits (approx.. 3500 euro/ha within 7 years period); the firewood harvested from *Populus euphratica* can give a profit of 2300 euro/ha³⁷ .

154. An estimated number of up to approximately 49,300 local resource users are envisaged to take up the SLM measures promoted and demonstrated by the project and have their livelihoods improved. This number represents the beneficiaries of training, awareness, micro grants beneficiaries as well as a conservatively estimated 10% of the people (and their households) employed in agricultural sector in the targeted districts, that are expected to benefit from SLM measures, promoted by the project such as: rotational grazing, planting forest shelterbelts, innovative land restorations measures, sustainable irrigation and crop rotations to increase soil productivity. The project will further mobilize governmental funds in the form of subsidies for farmers applying SLM measures on degraded land (through amendments to the Concept " On measures for the efficient use of land and water resources in agriculture"-June 2019) . Other forms of project support will be extended for alternative local income generating enterprises such as medicinal herb production, handicrafts workshops, green house agriculture to provide some form of compensation to farmers/pastoralists who may lose an existing source of income from extensive livestock farming, due to the implementation of sustainable pasture management plans.

155. These measures will yield socio economic benefits and will contribute to the achievement of environmental benefits. Implementing pasture rotational grazing, letting land rest from grazing for a specific period, leads to increase in carbon sequestration in soil and vegetation; increase of pasture botanical composition which is expected to increase livestock welfare and milk production. Promoted use of manure as fertiliser to improve soil structure will reduce chemical use and agricultural expenses. These practices are also inferred to reduce hazards to soil, wildlife and human health. The benefits produced by the SLM interventions have the potential to reduce vulnerability to climate change, supporting multiple sources

³⁶ Examples recorded in UNCCD/WOCAT database

³⁷ <http://www.fao.org/3/i7318en/i7318EN.pdf>

of food, energy and income thereby reducing community dependence on any single resource that might be affected by climate change. For example, various and innovative measures of restoring degraded land in targeted districts and supporting local communities' alternative income from vegetable gardens, fruit tree cultivation, basketry etc contribute to both food security and income diversity. Furthermore, tree planting and ecosystem protection activities in forests and pastures contribute to increase soil productivity and decreased soil salinity, thus providing ecosystems goods and services that further mitigate the negative effects of climate change. Replication and scaling up embedded in project design will ensure multiple benefits occurring during and soon after the project will end, through the formed partnerships that leveraged the resources of multiple sectors such as private companies, research institutes, NGOs, other donors.

156. The mechanisms for integrated decision making that the project will promote under Outputs 1.1, 1.2, 2.1 and 2.2 and 3.2.2 and 3.2.3 will provide opportunities to reduce conflicts among resource users or overlaps in institutional mandates. General agreements on potential trade-offs promoted through an integrated and participatory manner, provide the platform for improved environmental and socio-economic benefits. In addition to agricultural activities, as it has been demonstrated by many other projects, during participatory mechanisms, farmers use these opportunities to talk about water, climate, sanitation and social issues and by so doing they are able to engage local authorities as partners in different other proposals for rural development.

157. Finally, the project's focus at landscape-level in LADAB landscape and on the implementation of multiple interventions within a spatial unit, allows for generating more synergistic benefits. Healthy ecosystems will ensure resilience of the region to climate and human threats, and the maintenance of ecosystem services for local communities.

3.6 Consistency with national convention strategies/plans/reports/assessments and priorities

158. The project is consistent with the national priorities and the project's design is aligned with the country's international commitments under the main UN Environmental Conventions. Uzbekistan ratified the UNCCD on October 31, 1995 and it is among the countries that has an LDN National Voluntary Target linked to the SDG global target 15.3. The voluntary National LDN Target adopted by Uzbekistan is "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". The project supported sub-national LDN Targets in Karakalpakstan will contribute to achieving the LDN national targets. In addition, Uzbekistan has made a commitment to the Bonn Challenge, pledging to restore 0.5 million hectares of degraded land by 2030, to which the project contributes. Uzbekistan has been party to the CBD since July 7, 1995. On 11 June 2019 the Government of Uzbekistan approved the National Biodiversity Strategy and Action Plan (NBSAP) for 2019-2028, which provides for the implementation of the afforestation activities of the dried bottom of the Aral Sea with an increase in the forest area to 1.2 million hectares.

159. The project has been designed in full alignment with NBSAP 2019-2028 and contribute to the necessary groundwork to achieve post-2020 biodiversity priorities chiefly among which are the expansion of the PAs system and capacity development for effective PAs management and the biodiversity mainstreaming across production sectors. It contributes directly to the national strategic goal to increase the PAs system coverage from 12% of the national territory to 17% by 2025. The project will assist and support the implementation of this goal, particularly through increasing coverage of protected areas for lakes, wetlands and riparian corridors (effectively covering 9 KBAs/IBAs) in the Aral Sea basin and through promoting biodiversity friendly production practices in buffer and production areas. The project will also work towards strengthening the capacity of existing PA in the country. The project will therefore align with the national SDG Agenda and will contribute to implementation of six (6) of the national SDGs targets³⁸ under the SDG 15 – Life on Land.

160. The project further aligns with the Presidential Decree June/2019 No.UP-5742 "On measures for the efficient use of land and water resources in agriculture" which approved the forecast indicators of measures taken to improve efficiency of agricultural land use for the next decade. Another important strategic plan for land use to which the project will contribute is the adopted Decree of the President of the Republic of Uzbekistan dated October 23, 2019, No. UP-5863 "On Approving the Strategy for the Development of Agriculture of the Republic of Uzbekistan for 2020-2030," which formally approved the strategic priorities of the agricultural sector. The adopted Decree of the President of the Republic of Uzbekistan dated August 23, 2019, No. 4424 "On additional measures to increase the efficiency of forest use in the country" has approved the Forestry Development Program in the Republic of Uzbekistan for 2020-2024, which provides for the creation of forests on the lands of the forest fund in the context of regions in 2020-2024 on an area of 2,780 thousand ha.

³⁸ <http://nsdg.stat.uz/en/goal/17>

161. The project aligns with the Decree of the President of the Republic of Uzbekistan dated October 30, 2019 No. UP-5863 “On approval of the Concept of environmental protection of the Republic of Uzbekistan 2030”, which defines the priority areas of state policy in the field of environmental protection for the specified period. The Concept provides for: afforestation of the dried-up seabed of the Aral Sea with local tree and shrub vegetation on 30% of the territory (by 2021) up to 60% of the territory (by 2030); reduction of pollutant emissions into the air by 10%; an increase in the territory of the forest fund covered with forests in the country to 4.5 million hectares, including in the Republic of Karakalpakstan to 2.5 million hectares. The measures implemented within the framework of the project are aligned with the Sub regional Action Programme for Central Asian Countries on Combating Desertification within the UNCCD Context. The project aligns fully with the State Program approved by the Decree of the President of the Republic of Uzbekistan dated January 18, 2017, No. PP-2371 “On the State Program for the Development of the Aral Sea Region for 2017-2021,” clause 62, section VIII “Combating desertification and water resources management”, and “Creation of forest plantations on an area of 20.0 thousand hectares of the drained seabed of the Aral Sea”.

162. Furthermore, the project is fully aligned with Uzbekistan’s focus on innovation, placed at the heart of its economic development in general and its efforts towards restoring land degradation in particular. The project will be aligned with the mandate of the International Innovation Center for Aral Sea Region, created by the Decree of the President of the Republic of Uzbekistan dated October 16, 2018 No. PP-3975 under the patronage of the President of the Republic Uzbekistan, with scientific and technical support from the Islamic Development Bank and the International Center for Biosaline Agriculture (ICBA).

163. The project will further contribute to the operationalization of the Concept Aral Sea Region- Ecological Innovations and Technologies Zone is currently under approval by the intersectoral working group under the coordination of the Ministry of Innovations, members of the Oliy Majlis (Parliament) of Uzbekistan. The Concept is basically an action plan to transform the Aral Sea region into a zone of sustainable development based on environmental and ecological innovations and technologies. It will be Initially implemented in Karakalpakstan (Moynaq district), creating experimental sites for innovative projects, then, it will gradually reach out to the entire Aral Sea region, building on the Human Security Principles underpinning the focus of the Multi-Partner Human Security Trust Fund for the Aral Sea region (MPTF).

164. Finally, the project will be part of a number of initiatives that are supporting the country’s transition towards a green economy (approved by the Resolution of the President of the Republic of Uzbekistan dated 04.10.2019 No PP-4477) and of initiatives that are particularly relevant for the post COVID-19 green recovery efforts. The Resolution was adopted primarily to ensure the fulfilment of the obligations under the Paris Agreement on climate change signed by Uzbekistan on April 19, 2017. The Resolution highlights the main objectives of Uzbekistan’s transition to a green economy and includes: improvements in energy efficiency, rational use of natural resources, “greening” the public investments and expenditures, as well as support to pilot initiatives that will pave the way towards green economy. According to the Resolution, by 2030 Uzbekistan aims, *inter alia*, at: (i) reduction of GHG emission per unit of GDP by 10% compared to 2010 levels; (ii) a twofold increase of energy efficiency indicators and a decrease in the carbon intensity of GDP; (iii) increase of renewable energy sources share up to 25% of the total volume of electricity generation; (iv) introduction of drip irrigation technology on 1 million hectares and increasing the surface of crops under efficient irrigation by 20-40%; (v) achieving Land Degradation Neutrality; (vi) increasing agricultural productivity by 20-25%.

165. Supporting the transition to a green economy and the country’s post-COVID 19 green recovery is assisted by international development agencies. The European Union in particular plans to enhance the support to green recovery by putting green growth at the center of the next EU Cooperation programme for the period 2021-2027. Renewable energy, sustainable agri-food sector and green investments will be among the key themes constituting the programme. In addition, this project is part of UNDP’s approach to supporting the country’s green recovery in three main directions: (i) accelerating transition towards the use of clean renewable energy (ii) support to reorienting business and finances towards green investment and policies that are promoting green jobs and (iii) support to sustainable agricultural practices and facilitation of innovative “climate smart” knowledge in agriculture sector, in partnership with the European Union.

3.7 Relevance to SDGs

166. The national SDG indicators were adopted through the Decree of Cabinet of Ministers “On Measures for Implementation of National Sustainable Development Goals and Targets for the Period up to 2030”. The UN Mainstreaming, Acceleration and Policy Support for 2030 Agenda (MAPS)³⁹ and UNECE’s 3rd Environmental Performance Review have

³⁹ <https://www.eurasia.undp.org/content/rbec/en/home/library/sustainable-development/summary-of-findings-from->

highlighted that one of the main constraints hampering the SDG implementation is the limited data availability. The UN MAPS further identified the main economic accelerators of the countries in the region towards achieving the SDGs, and for Uzbekistan these are: Governance (towards more efficient and accountable governance systems, including gender issues), Green Economy (towards sustainable and resilient natural resources management) and Social Protection (towards Social Policy for Development). The project's objective is fully aligned with the priorities placed by Uzbekistan on the sustainable and resilient natural resource management (as one of the key accelerators towards achieving multiple SDGs) and will generate a wealth of knowledge, environmental information and GIS spatial data that will contribute to covering the gaps in the availability of information regarding natural resource use. The project's essence is its link to multiple SDGs through the delivery of synergies across two GEF focal areas, therefore it aligns with multiple national SDG targets (tasks)⁴⁰.

167. For example, through the project's focus on improved and resilient livelihoods and food security, the project is relevant to SDG Goal 1 and national targets 1.4 "By 2030, ensure that all population, in particular the poor and the vulnerable, have favorable economic and financial conditions for equal access, to basic resources (land plots, bank loans and etc.), new technologies and financial services, including microfinance" as well as national target 1.5 "By 2030, build the resilience of socially vulnerable people and reduce their exposure and vulnerability to climate-induced extreme events and other economic, social and environmental shocks and disasters". Furthermore, the project contributes to achieving SDG 2 and aligns with national targets 2.3 "By 2030, significantly increase the average agricultural productivity and incomes of food producer", national target 2.4 "By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity of production".

168. The project's advocacy and promotion of equal opportunities for women and men, supporting women participation in decision making over natural resources management and women rural entrepreneurship aligns with the national SDG task 5.1 "End all forms of discrimination against all women and girls everywhere, including integration into legislation and effective implementation in law enforcement practice of the principles of the elimination of indirect discrimination" and national task 5.5 "Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life".

169. Through its work on integrated water management in LADAB landscape, aligned with the Integrated Water Resources Management (IWRM) the project links to national SDG task 6.4 "By 2030, substantially increase water-use efficiency across all sectors of economy" and national task 6.5 "By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate" and national task 6.6 "By 2030 protect, restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes".

170. The project is further aligned with the SDG 12 "Ensure sustainable consumption and production patterns" and especially relevant to implementing measures under national target 12.6 "Encourage companies especially large ones to adopt sustainable production practices and integrate sustainability information into their reporting cycle". In addition, through its focus on climate sensitive integrated natural resources planning and management and improving resilience, the project will support the country's advancement towards SDG 13 "Strengthen resilience and adaptive capacity to climate-related hazards and natural disaster in all countries" being aligned in particular with the national target 13.2 "Integrate climate change measures into national policies, strategies and planning paying a special attention to the measures implemented in Aral region".

171. The project is designed around the sustainable, climate resilient and biodiversity friendly integrated water-land management and LDN philosophy, and it is therefore highly relevant to SDG 15, national task 15.1 "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"; national task 15.2 "Promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation". Through its LDN focus, the project fully aligns with national target 15.3 "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". Through its biodiversity work, the project is relevant to national task 15.5 "Take significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and prevent the extinction of threatened species"; national task 15.7 "Take urgent action to end poaching

[sdg-MAPS-missions.html](#)

⁴⁰ <http://nsdg.stat.uz/en>

and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products”. The project’s biodiversity mainstreaming work links to national target 15.9 “Integrate ecosystem and biodiversity values into national planning and development processes of the economy sectors and industries”.

172. Finally, through its innovative land restoration work, the project is fully aligned with the SDG integration initiative in the Aral Sea Basin, promoted by the government which has brought a new innovative approach to environmental and development challenges, in the form of a “Concept for Aral Sea Region- Ecological Innovations and Technologies Zone” implemented initially in Karakalpakstan.

3.8 Stakeholder engagement, partnerships and coordination (Please see Annex 14: Stakeholders Engagement Plan and Annex 25 List of Baseline Programmes)

173. The successful implementation of the project will largely depend on the effective communication and coordination with the multiple project stakeholders and the implementation of mechanisms to ensure these stakeholders’ participation. The key national and sub-national stakeholders include the State Committee on Ecology and Environmental Protection, State Committee on Forestry and the state forestry enterprises in the targeted districts, Ministry of Water Resources, Ministry of Agriculture, State Forestry Enterprises, Council of Farmers among others. At the local level, the most relevant stakeholders are the state forestry enterprises, organizations of small- and medium-size farmers, producers’ associations, women’s groups, and local communities. The project’s Stakeholder Engagement Plan includes information summarizing the main PPG bilateral interactions and stakeholder meetings conducted, among other aspects. The Project coordination with other UNDP and GEF projects are captured under Annex 25 List of Baseline Programmes and Projects.

3.9 Gender equality and women’s empowerment (Please see Annex 16: Gender Analysis and Action Plan)

174. According to the UNDP Gender Marker Rating, the project is categorized as GEN2: gender equality as a significant objective. During the PPG, a gender analysis for the prioritized landscape and a detailed Gender Action Plan were developed to ensure gender mainstreaming in the project; specific gender-based indicators will be used for monitoring and a gender specialist will be part of the Project Management Unit (PMU) to facilitate improvements to gender equality and women’s empowerment.

3.10 Risks to project success and social/environmental safeguards

Risks to project success and mitigation measures

175. As per standard UNDP requirements, the Project Manager (with the support of a M&E specialist) 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. 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, as well as environmental and social grievances will also be reported to the GEF in the annual PIR. The detailed risk management strategy for the project is included in *Annex 7: UNDP Risk Register*.

176. The project will deploy risk management measures to mitigate any implementation delays that may result due to potential reinstatement of the COVID-19 related restrictions. The mitigation measures will be aligned with the UNDP corporate guidance for “Managing programmes and projects in the age of COVID-19”.

Social and environmental risks and safeguards

177. Overall project risk categorization is Moderate. The project activities are designed ensuring minimal or no risks of adverse social or environmental impacts. During the project design stage, the social and environmental screening was completed (Please see *Annex 6: Social and Environmental Screening Procedure/SESP*).

178. The SESP (*Annex 6*) was finalized during the project preparation, as required by UNDP’s Social and Environmental Standards (SES). The SESP identified 15 risks that could have potential negative impacts in the absence of safeguards. Based on their likelihood and impact the category of each risk has been estimated, resulting in 13 Moderate risks and 2 Low risk. All the project risks are included in the UNDP Risk Register. The management measures are described in the environmental and Social Management Framework (ESMF) prepared at PPG stage (*please see Annex 30, as a separate report*).

179. Key SES requirements and measures that will be taken to mitigate Moderate risks include:

- SESA approach incorporated under Output 1.2 (Integrated Water Management Framework).
- Development of land-use plans, pasture management plans and forest management plans based on targeted feasibility/risk assessments (including climate-related risks and vulnerabilities) and subsequent site-specific screening for SLM measures included in these plans, in order to identify, prevent and mitigate potential economic displacement and negative impact on critical habitats. If the economic displacement is confirmed, then all the elements of a Livelihood Action Plan will be incorporated in the respective plans (Outputs 2.2, 2.3, 2.5).
- Implementation of land restoration activities will be based on an initial site-specific screening and implementation of safeguards measures, including on climate related risks and vulnerabilities (Output 2.4).
- Scaled impact screening/ESIA for infrastructure development in the Protected Areas under Output 3.1.1 and 3.1.2 along with adherence to national/international standards for low-impact design and construction.
- Capacity development and awareness events for national and local authorities, PA managers, rangers and border officers, NGOs and local resource users, Water Users Associations, farmers and farmers associations, women/vulnerable groups at targeted local communities (Outputs 4.1, 1.1, 2.1).
- Process Framework included under Output 3.1.1 and Output 3.1.2 to engage local population in the preparatory works leading to the designation of new PAs and establishment of ecological corridors in the targeted areas. The Process framework is deployed to address and reconcile any real or perceived economic limitation that the new PA legal mandate and/or stricter regulations may impose.
- Full adherence to government rules and restrictions related to COVID-19 movement/social distancing and a flexible approach to stakeholder consultations. These can include use of remote methods when possible, protective equipment, maintaining social distancing, and other measures recommended by WHO and national authorities. These safeguards will be conveyed to all partners, third parties and contractors. A COVID-19 Project Mitigation Plan/Strategy, will be drafted, discussed and agreed upon at the Inception Workshop with all the stakeholders.
- Throughout the project implementation the projects' Stakeholders Engagement Plan and Gender Action Plan will be followed and updated as necessary based on screening, assessments and management measures.

3.11 Innovativeness, sustainability and potential for scaling up

180. Innovativeness. Uzbekistan's focus on promoting innovation has become more prominent in recent years, with the Government adopting a number of policy documents and measures designed to promote innovative activities. The project's innovative land restoration and sustainable land management measures are aligned with the priorities of the recently created International Innovation Centre for Aral Sea Region and will contribute to the operationalization of the Concept for Aral Sea region- Ecological Innovation and Technologies Zone (currently under approval). The project's innovative approaches are also aligned with the UNDP's Strategic Plan 2018-2021 and priorities placed on global development advisory and innovation platforms, part of UNDP's global knowledge, innovation and partnership building efforts within the UN family. In Uzbekistan, the project will be embedded in UNDP's initiatives supporting innovation in the Aral Sea Basin, expected to empower diverse groups of people to change systems, through experimentation and demonstration, while building on the human security principles underpinning the UN Multi-Partner Human Security Trust Fund for the Aral Sea Region. The innovative aspects embedded in the project's strategy it is hoped to bring about change and support the shift towards a more sustainable use of natural resources:

181. *Integrated water management* : With respect to Integrated water management under Component 1, the project is building on existing knowledge and experience in the country with regard to water management and basin level planning already implemented within the framework of the GIZ/CAREC Project "Support of Water Management and Basin organizations in Central Asia). The innovativeness of this project will consist in linking "water saving agriculture" and improved sectoral production systems with the ecological pillars of the landscape: the lakes, wetlands and riparian corridors at landscape level in LADAB landscape, hosting the last remaining and most vulnerable water-based ecosystems in the Aral Sea Basin. The project will bring together conservation ecologists, water managers, agronomists, water users from different sectors, aiming at finding consensus and reconciliation among multiple water users on new optimized volumes and timing of water supply through the existing hydrotechnical facilities for the LADAB landscape. The integrated approach that this project will promote is aligned with IWRM and LDN concepts, and will provide an evidence-based water management planning framework at landscape level (and concrete demonstration of efficient water use in irrigated areas at 4 district

levels) with practical actions for efficient water saving and agricultural practices that will not deplete soil condition; recommendations for investments into optimization of hydrotechnical facilities and revised norms and volumes and timing of water releases to KBAs/IBAs that account for climate change predicted water shortages and will ensure the minimum ecological flows to maintain the ecological integrity of the water based ecosystems.

182. *Improved pastures:* Pasture management planning (within Output 2.3) is a relatively new approach for the country, aligned with the new Law on Pastures adopted in 2019. The project will promote a series of pasture management measures to meet different livestock and pasture conditions. The innovativeness will consist not only in the gender sensitive pasture development plans and innovative SLM measures *per se* but more importantly in the alignment of the pasture management planning demonstrated by the project, with the LDN principles, and the design of specific SLM measures according to the LDN prevent-reduce-restore philosophy. Depending on the degradation rate, the pastures management plans will contain different measures: e.g. in case of a not degraded land (irrigated or non-irrigated), suggested measures will have low impact, will conserve soil fertility, minimise disturbance and erosion, reduced/zero tillage; LDN compatible crop rotations, green manure cropping, agro-forestry, intercropping etc. In case of management plans designed to reduce degradation, the prospective SLM measures will reduce the rate of land degradation, and will be more intensive: e.g. active measures to reduce soil erosion and correct degrading processes (such as to correct salinization), reforestation or creation of forest shelter belts; reseeding of pastures; water infrastructure management, rotational grazing, organic matter addition etc. Furthermore, these pasture management plans will be a part of integrated LDN-centered land use planning process at district level (within Output 2.2) and aligned with the overall LDN principles that this project will promote. LDN is a new concept in Uzbekistan, therefore the project's envisaged partnership with the GEF/FAO Project "Sustainable Forest and Rangelands Management in the Dryland Ecosystems of Uzbekistan" is deemed very important, as the FAO project will strengthen the enabling environment for LDN implementation, in terms of scaling up and supporting the broader uptake of project-demonstrated LDN/SLM measures at district level.

183. *Sustainable forest management:* Within Output 2.5 the project will introduce an integrated approach for the use and management of forests and forest pastures, combining sustainable practices in livestock and use of pastures with the reforestation measures. The reforestation measures will be implemented around KBAs/IBAs (e.g. Dengizkul lakes system and Akpetki), to prevent forest degradation, soil erosion and lakes siltation. Reforestations along Amudarya river banks will support natural regeneration and increase flooding by a suite of measures, e.g. ranging from forest patching and in some areas digging trenches and pumping water to increase areas subject to seasonal flooding; interplanting silverberry and sea-buckthorn to create suitable microclimate for valuable species, and planting licorice and alfalfa to enrich the soil. The project will introduce sustainable livestock and pasture use practices to avoid pressure on tugai and tauranga forests, reforestation (planting saxaul, kandym, etc.), and fodder production around artesian wells. Specific methods will be implemented to promote natural renewal of turanga and tugai forests.

184. *Techniques for degraded land restoration:* The project's work within Output 2.4, will implement targeted approaches to test and demonstrate land restoration options for highly degraded land. This will include a suite of measures with innovative aspects, such as the transformation of degraded arable or pasture lands to fodder or pasture areas by biodrainage, planting licorice and alfalfa, implementation of smart irrigation techniques that improved its conditions; creating seeded pastures, and growing fodder plants and halophytes on saline sites planted for autumn pastures. Integrated innovative agroforestry measures through the cultivation of perennial crops, primarily trees (including fruit trees) and shrubs together with interplanted arable crops (in the first 3 years until trees mature), small poultry farms, basket weaving workshops, and livestock farming will not only restore degraded land but will also give alternative sources of income to local communities. In addition, the project will explore the opportunity to planting quinoa on saline soil, in the harsh conditions of Karakalpakstan, and will work together with the International Center for Biosaline Agriculture (ICBA), building on the very promising results so far. The project will further organize the *Aral Sea Innovation Challenge* to promote innovative technologies, policies, regulations and financial instruments aiming at improving land governance and reversing land degradation in the Aral Sea Region.

185. Sustainability and Scaling Up: The project aligns with the STAP guidance (GEF/STAP/C.56/Inf.04) on achieving sustainable outcomes, including the following approaches: (i) Designing multi-stakeholder processes to engage key stakeholders, build stakeholder trust and motivation, and incentivize core actors for sustainable land and pastureland management in LADAB landscape; (ii) Outlining a theory of change that recognizes the need for a policy and financing frameworks' coherence and participatory approaches and emphasizes diversity and adaptive learning.

186. Institutional sustainability will be ensured by promoting interagency cooperation and programming, through the coordination frameworks and clarified institutional mandates that this project will facilitate. Under Output 1.2 the project will set up a broad coordination framework, by developing the Integrated Water Management Framework in LADAB

landscape, covering 1,050,910 ha of irrigated areas, demonstrating effective water saving agriculture on 112,800 ha and ensuring adequate water and timing of releases to 957,260 lakes, wetlands and riparian zones. Under Output 2.2. the project will create district level intersectoral Integrated Spatial and Land Use Planning District Committees (ISLUPDC) responsible for the integrated land use planning and under Output 2.1 a similar intersectoral committee will work on LDN target setting in Karakalpakstan. Regulatory measures will be developed for the institutionalization of these ISLUPDCs in view of replicating the LDN compatible integrated land use planning in other districts. On the same time, the project will develop manuals and guidelines on LDN centered Land Use Planning and an GIS Land Use Planning Concept and guidelines on Pastures and Forest Management Planning that are expected to be formally adopted by the local and national authorities and become mandatory and support sustainability of results.

187. The environmental sustainability of the project results will be ensured by strengthened capacities in biodiversity management and LDN compatible SLM and increased awareness and understanding of local authorities, water managers, PAs staff, national government employees, state forestry enterprises, extension services, local natural resource users. In addition, the project will develop and institutionalize appropriate methodologies and tools, plans, guidelines and manuals to ensure sustainability of environmental results. For example, efficient water use on 112,800 ha of irrigated land will be achieved through four LDN compatible, climate sensitive Integrated Water Management Plans in the targeted districts (within Component 1).

188. Furthermore, the project's supported: revised norms and water allocation among multiple users, inter-sectorial dialogue, institutional agreements (between State Committee on Ecology and Environmental Protection and the Ministry of Water Resources and the Ministry of Agriculture) as well as the legal amendments to the Water Code, will ensure that 957,260 ha of natural ecosystems (lakes, wetlands, riparian zones) in Amudarya Basin will have adequate water levels to maintain their ecological integrity considering the climate induced water scarcity. Within Component 2, approximately 5,629,217 ha (representing the total area of the targeted districts) will be under LDN compatible, participatory integrated spatial and land use planning in 4 districts, setting a new standard in land use planning in Uzbekistan. Approximately 100,000 ha of pastures and forests ecosystems will be put under improved management practices, through sustainable management plans aligned with the 10 years Strategy of the Forestry Enterprises, for sustainability of results. Under Component 3, approximately 9 additional KBAs/IBAs will be under increased protection through designation of 5 new PAs covering 3,094,600 ha that cover these KBAs/IBAs almost entirely. At the same time the targeted exiting PAs covering 757,329 ha will be under improved management. Updated and available information management systems will provide reliable and real-time information to support decision-making. Finally, financial sustainability will be supported by facilitated access to financing of small- and medium size producers who adopt environmentally friendly production practices. Additional income will be generated, and productivity will be improved, thereby making it attractive for producers to continue using sustainable production practices beyond the life of the project.

189. The project has a great potential for scaling-up at the national level. The development and implementation of the Integrated Water Management Framework will encompass provisions for the "water saving agriculture" measures demonstrated on 112,800 ha of irrigated areas in four districts will be scaled up to 1,050,910 ha irrigated area, in all the remaining districts of the LADAB landscape. The implementation of the Integrated LDN compatible Spatial and Land Use Plans in the four districts in Uzbekistan will result in lessons learned and experience that can be replicated in other districts of LADAB landscape. There is expected that the manuals and guidelines be endorsed/ institutionalized to provide for enduring and scalable results. The wealth of information, lessons learned, knowledge products, biodiversity, water and land management databases will provide useful evidence for policy making. In terms of replication and/or scaling up at regional level, there will be at least one regional workshop expected to share experience in LDN subnational target setting (Output 2.1) showcasing Karakalpakstan experience, potentially replicating experience in other countries of the region with similar climatic conditions. Partnerships with other projects such as GEF/FAO "Sustainable Forest and Rangelands Management in the Dryland Ecosystems of Uzbekistan" will ensure that the project's LDN target setting at regional level will be linked to LDN National Target Action Plan (to be developed under FAO project) and with other FAO supported knowledge platform such as CACILM II. Through Component 4, the project knowledge management approaches will actively support participation in regional and global knowledge sharing networks (such as UNCCD/WOCAT). Finally, the project will prepare a *Scaling Up and Replication Strategy*, ensuring that the valuable knowledge generated during the project implementation, documenting the trailblazing efforts that drive progress towards LDN and integrated land-water management in production zones, will be replicated and scaled up to other regions in Uzbekistan.

3.12 Knowledge management

190. The project's Knowledge Management approaches targets two levels of knowledge management activities, strategies and products. First, in the country, at local and national levels, the project will actively contribute towards the development of a critical mass of understanding and awareness about awareness and knowledge gaps, as reflected by the baseline awareness questionnaires conducted during the PPG, such as sustainable water management, wetland ecosystem services, land degradation neutrality and biodiversity friendly production practices around protected areas and how these translate into global environmental benefits while sustaining local livelihoods. Strengthened stakeholders' technical knowledge, awareness and participation will ensure sustainability of project's results and will inculcate ownership. The second level is the regional level, where the project will act as an active contributor to supporting negotiations on sustainable regional water management and will leverage the knowledge generated within the project by actively supporting mainstreaming of integrated land-water approaches into regional programming. The project team will ensure extraction and dissemination of lessons learned and good practices to enable adaptive management and upscaling or replication at local and regional scales. Results will be disseminated to targeted audiences through relevant information sharing fora and networks. The project will contribute to strengthened evidence-based policy making and to knowledge sharing through different KM platforms for the benefit of similar projects in the region.

191. The project's knowledge management will build on three key elements that foster learning and knowledge sharing: Learning from existing lessons and best practices; Assessing and documenting results; Knowledge sharing and communication. An enclosed draft Communication Plan (to be refined during the inception period) is proposed to support the project's dissemination of results within and beyond the project intervention area through existing information sharing networks and forums. The project will identify and participate in scientific, policy or other networks, which may be of benefit to the project. The project will identify, analyse and share lessons learned that might be beneficial to the design and implementation of similar projects and disseminate these lessons widely. *(Please see Annex 17: Knowledge Management Plan)*

3.13 South-south and triangular cooperation

192. Learning opportunities and knowledge transfer from peer countries will be further explored during project implementation. To present opportunities for replication in other countries, the project will share knowledge and case studies through the available platforms such as the Regional Environmental Center for Central Asia CAREC Knowledge Hub, Central Asian Countries Initiative for Land Management FAO CACILM and the World Overview of Conservation Approaches and Technologies WOCAT platforms. Exchange of knowledge and experience among countries in the region and under similar climatic conditions will be organized to discuss best practices in establishing subnational level LDN targets. The project will organize and facilitate a regional workshop providing a platform for experience sharing on LDN results and SLM approaches to achieve LDN, discussing institutional mechanisms linking subnational and national tiers of monitoring and reporting on LDN progress within the wider SDG Agenda. The project will leverage UNDP's regional and global expertise and will reach out to international LDN experts, representatives of UNCCD, the Global Mechanism and LDN Target Setting Programme who will be invited to hold presentations.

193. In addition, to bring the voice of Uzbekistan to global and regional fora, the project will explore opportunities for meaningful participation in specific events where UNDP could support engagement with other regional and international actors on the promotion of integrated water management as a key driver of SDG agenda in the Aral Sea Basin. A series of analytical reports will be developed to inform regional dialogue, to strengthen the technical knowledge and capacity of Uzbekistan's representatives in different regional negotiations and meetings organized by the IFAs. These results and reports will be shared with countries in the region to inform discussions and finding common solutions to the water management problems in the Aral Sea Basin.

IV. PROJECT RESULTS FRAMEWORK

<p>This project will contribute to the following Sustainable Development Goal (s): Goal 1 – End poverty in all its forms everywhere; Goal 5 – Achieve gender equality and empower all women and girls; Goal 6 – Ensure access to water and sanitation for all and Goal 15 – Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss.</p>					
<p>This project will contribute to the National priority: “Promoting mechanisms/instruments of effective use of natural resources” and “Support to population on adaptation to climate change, including in the Aral Sea region”</p>					
<p>This project will contribute to UNDP Global Strategic Plan Outcome 1: Growth is inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded</p>					
<p>This project will be linked to UNDAF (2016-2020) Key Priority 2: Environmental protection to ensure sustainable development ; and UNDAF OUTCOME INVOLVING UNDP 6: By 2020, equitable and sustainable economic growth through productive employment, improvement of environment for business, entrepreneurship and innovations expanded for all.</p>					
<p>This project will be linked to the following output of the UNDP Strategic Plan: Output 1.3: Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste.</p>					
	Indicators	Baseline	Mid-term Target	End of Project Target	Means of Verifications and Assumptions
<p>Project Objective: To enhance the resilience and sustainability of landscapes and livelihoods in the Aral basin, and progress toward Land Degradation Neutrality (LDN), through integrated management of land, lake, wetland, and riparian ecosystems, with engagement of</p>	<p>Indicator 1 (GEF 7 Core Indicator 1) Terrestrial protected areas created or under improved management for conservation and sustainable use (ha) (sum of Indicator 16 and Indicator 17 below).</p>	807.329 ha ⁴¹	Flora and fauna Inventories and habitat mapping necessary for the preparatory work completed	3,851,929 ⁴²	<p>Means for verification: Annual monitoring (PIRs), project technical reports, METT scorecards validated by the project final evaluation. Assumptions: Interest from the central government, private sectors and farmers in biodiversity conservation;</p>
	<p>Indicator 2 (GEF 7 Core Indicator 4) Area of landscapes under improved practices (hectares, excluding PAs) (sum of Indicators 8,9,10)</p>	0	Baseline assessments and methodologies developed.	100,000 ha	<p>Means of verification: Field reports/field verification reports; Project midterm and final evaluation report; State Forestry Enterprises-approved pastures and forests management plans.</p>

⁴¹ Sum of existing PAs (IUCN category managed) within the scope of the project: (i) Kyzylkum National Reserve (I) (10,311 ha); Saygachy Complex Landscape reserve (Ib) (628,300 ha); Lower Amudarya State Biosphere Reserve (I) (68,718 ha); Dengizkul Refuge/Zakaznik (IV) (50,000 ha); Sudochoye Refuge (IV) (50,000 ha)

⁴² Sum of Indicator 16 (3,094,600 ha) + Indicator 17 (757,329 ha)

private sector and local communities	<p>Indicator 3 (GEF 7 Core Indicator 11) Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment (#):</p> <p># of <u>public sector employees</u> with improved capacity for integrated landscape management and sustainable agricultural practices (gender disaggregated)</p> <p># of <u>local resource users and agricultural producers</u> with improved awareness and technical knowledge on SLM and sustainable water use and improved sustainability of livelihoods (gender disaggregated)</p> <p># <u>Micro-scheme</u> beneficiaries</p> <p># of <u>PA staff</u> with enhanced individual capacity in biodiversity conservation and sustainable management, legal enforcement and</p>	N/A zero beneficiaries)	<p>Total: 20,130 (30% women)</p> <p><u>Public sector employee:</u> 30 public sector staff at national and local level of which at least 30% women</p> <p><u>Local resource users and agricultural producers:</u> Total 20,000 (at least 30%women)</p> <p><u>Micro-scheme beneficiaries:</u> Methodologies, calls for application, grants disbursements</p> <p><u>PA staff :</u> At least 100 PA staff with enhanced capacity (at least 30% women)</p>	<p>Total: 49,300 (14,780women and 34,520 men)</p> <p><u>Public sector employee:</u> 100 public sector staff at national and local level of which at least 30% women (30 women; 70 men)</p> <p><u>Local resource users and agricultural producers:</u> Total 48,500 (14,550 women; 33,950 men)</p> <p><u>Micro-scheme</u> 500 (150 women; 350 men)</p> <p><u>PA staff :</u> At least 200 PA staff with enhanced capacity (50 women and 150 men)</p>	<p>Assumptions: Environmental/climate variability within normal range. Uptake of SLM practices and integrated land use planning. Existing interest from local communities to participate in project activities.</p> <p>Means of verification: Farmer and household surveys/interviews (unstructured and/or semi structured). Interviews with key stakeholders; project reports validated by midterm and final project evaluations; Number of staff employed by Ministry of Water resources (and affiliated structures) and other line ministries, number of staff of the State Committee for Ecology and Environmental Protection, Committee on Veterinary Medicine and Livestock, Council of Farmers, benefiting from project activities through trainings, awareness, integrated land use planning, LDN target setting. Number of local resources users (farmers, water users) participating into project activities, benefiting from trainings, field farm schools, grants, support to local nurseries and basketry workshops, support to local orchards and agroforestry measures; land restoration activities and pastures and forest management planning.</p>
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	patrolling (gender disaggregated)				Assumptions: Local resource users and government officials of key project partners actively involved in project activities.
	Indicators	Baseline	Mid-term Target	End of Project Target	Means of Verifications and Assumptions
<p>Component 1: Coordinated water management as basis for LDN and conservation</p> <p>Outcome 1.1: Improved water management for resilient ecosystems and sustainable livelihoods:</p>	<p>Indicator 4: Existence of formally approved institutional framework for integrated water management in Lower Amudarya and Aral basin (LADAB) landscape, operationalizing the revised, climate sensitive, norms, volumes and timing of water releases among multiple users in LADAB Landscape.</p>	N/A	<p>-Multi-Stakeholder Task Force and Multi-Stakeholder Committee set up</p> <p>-Baseline and problem assessments developed</p> <p>-Revised irrigation norms</p> <p>-Concept on Water Release to Lakes, Wetlands and Riparian Zones drafted</p> <p>Inter-institutional agreements drafted and submitted for discussions</p>	1 (Integrated Water Management Framework approved and under implementation)	<p>Means of verification: Project technical reports. Project reporting for Outcome 1 verified by official records. Field monitoring. Validated by Midterm and final GEF evaluation project reports.</p> <p>Assumptions: Government has a keen interest to rationalize water use among different economic sectors and approve mandatory ecological flows to maintain ecological integrity of lakes, wetlands and riparian zone sin Amudarya delta.</p>

	<p>Indicator 5: Area of irrigated land (ha) under sustainable integrated water management planning in the targeted districts, resulting in: -1% reduced salinized land per year -10% reduced water losses -increase in soil productivity as measured by soil bonitet score</p>	0 ha	Baseline assessments and methodologies developed Co-financing reconfirmed/mobilized for the Integrated Water Management Plans	112,180 ha covered by 4 LDN compatible, climate smart and gender sensitive Integrated Water Management Plans in the priority districts.	<p>Means of verification: Project technical reports. Expert project mapping, GIS referenced data; Ministry of Water Resources ameliorative expeditions data. Field monitoring. Midterm and Final GEF evaluation project reports.</p> <p>Assumptions: Ministry of Water Resources and Ministry of Agriculture remain committed to the pledged co-financing Integrated Water Management Plans will be officially approved Government has a keen interest to rationalize water use among different economic sectors and approve mandatory ecological flows to maintain ecological integrity of lakes, wetlands and riparian zone sin Amudarya delta.</p>
	<p>Indicator 6: Existence of legal tools enforcing minimum ecological flows, accounting for climate change, to Amudarya basin lakes, wetlands and riparian zones</p>	N/A (norms are not observed)	<p>Concept (Guidelines) on Water Release to Lakes, Wetlands and Riparian Zones</p> <p>Legal amendments drafted (based on the Concept)</p>	<p>Legal amendments to Water Code and related legislation adopted, guaranteeing the minimum ecological flows to Amudarya lakes, wetlands and riparian zones adopted</p>	<p>Means of verification: Official records; Project reports. Project terminal evaluation report; Assumptions: There is a stated and clear interest of the Government to reform water sector and ensure the guaranteed ecological flow to lower Amudarya delta. Project partners remain committed to the project objective</p>
	<p>Indicator 7 (KM): Level of information necessary for improved integrated water management</p>	<p>Poor integration of existing data sets on water requirements, water use patterns in different sectors Lack of information on actual</p>	<p>Detailed methodology and approaches for updating water management information in support of an improved, equitable share among multiple water users (sectors)</p>	<p>(i) A new <i>Concept on Water Management and Release to Lakes, Wetlands and Riparian Zones</i> is shared with. and endorsed by, the Ministry of</p>	<p>Means of verification: Project reports; Successful completion of project activities for relevant project components, as verified by</p>

	considering the climate change impacts (e.g. revised water requirements in agriculture sector and correct estimation of ecological flows to maintain lakes, wetlands and riparian zones in LADAB landscape)	ecological flows required by most of the lakes and wetlands to maintain ecological integrity, especially under climate change predicted deficits.	and establishing and ensuring the required ecological flow necessary to maintain lakes, wetlands and riparian zones in Amudarya delta	Water Resources by with water managers. (ii)Comprehensive inventory of water uses and water requirements in agriculture sector (iii) Plan of Investments for optimization of hydrotechnical facilities (iii) Researched water requirements for lakes, wetlands and riparian zones in Amudarya mid and lower reaches, is completed and accessible to end users and water managers in LADAB landscape	the MTR and TE. Assumptions: Project does not encounter critical risk that will derail activities; Relevant water management related data can be achieved cost-effectively at landscape scale; There is a stated and clear interest of the Government to facilitate consensus among multiple water users and reform water management sector to include guaranteed ecological flows to lower Amudarya delta.
Outputs:					
Output 1.1 Revised norms of volume and timing of water supply through key hydrotechnical facilities developed and adopted:					
Output 1.2 Integrated Water Management Framework designed for LADAB landscape and 4 LDN-compatible Gender Sensitive Climate-Smart Integrated Water Management designed in 4 priority districts based on Output 1.1 and used as input to Output 2.1					
	Indicators	Baseline	Mid-term Target	End of Project Target	Means of Verifications and Assumptions
Component 2: Sustainable land management for Land Degradation Neutrality in the target landscape Outcome 2.1. Practical improvement in soil and vegetation condition management and new livelihood opportunities created for local communities in line with LDN checklist	Indicator 8 (GEF Core Indicator 4.1): Area (hectares) of land under sustainable management regime, where degradation of pasture habitats is avoided.	Baseline will be assessed at inception stage.	Baseline methodologies, indicators and monitoring schemes developed; pastures inventories and assessments developed Expert mapping based on LDN avoid/reduce/restore hierarchy.	40,000 pastures under sustainable management plans, where degradation is avoided	Means of verification: Field verification reports (based on the agreed monitoring scheme embedded into the plans) validated by Project terminal evaluation report; Pastures and Forests management plans integrated with the 10 years forest plan of the State Forestry State Forestry enterprises approved pastures and forests management plans Assumptions: Environmental/climate variability within normal range. Uptake of SLM practices and integrated land use planning is optimal; Existing interest from local

					communities to participate in project activities. Co-financing materialized for the implementation of these plans.
	Indicator 9 (GEF7 Core Indicator 4.1): Area (hectares) of land under sustainable management regime, where degradation of tugai/tauranga forests habitats is avoided .	Baseline established at inception stage.	Baseline methodologies, indicators and monitoring schemes developed; assessments developed. Expert mapping based on LDN avoid/reduce/restore hierarchy.	10,000 tugai/tauranga forest under sustainable regime, where degradation is avoided	Means of verification: Field verification reports (based on the agreed monitoring scheme embedded into the plans) validated by Project terminal evaluation Assumptions: There is interest among farmers (dekhan farms), forestry enterprises and pasture associations and local authorities to apply SLM measures and forest regeneration in the production zones. Co-financing materialized for the implementation of these plans.
	Indicator 10 (GEF7 Core Indicator 4.1): Area (hectares) of land where degradation of pastures is reduced.	Baseline established at inception stage.	Baseline methodologies, indicators and monitoring schemes developed; assessments developed. Expert mapping based on LDN avoid/reduce/restore hierarchy.	50,000 ha under sustainable management regime	Means of verification: Field verification reports based on the agreed monitoring scheme embedded into the plans validated by Project terminal evaluation report; State Forestry enterprises approved pastures and forests management plans. Assumptions: Environmental/climate variability within normal range. Uptake of SLM practices and integrated land use planning is optimal; Existing interest and co-funding from local communities to participate in project activities. Co-financing materialized for the implementation of these plans.

	<p>Indicator 11 (GEF7 Core Indicator 3.1): Area (ha) of degraded land restored for improved ecosystem services</p>	0 ha	<p>Baseline and methodologies developed. LDN <i>hot spots</i> identified, based on which the demonstration sites (proposed under Annex 24) are validated/replaced.</p> <p>Baseline methodologies, monitoring indicators developed; assessments developed;</p>	1,500 ha	<p>Means of verification: Field observation reports (based on an agreed monitoring methodology designed before the restoration works) validated by Project terminal evaluation report; State Forestry enterprises approved pastures and forests management plans. Assumptions: Project restoration activities proposed can be implemented and there is interest among farmers (dekhan farms), forestry enterprises and pasture associations and local authorities to apply SLM measures and forest regeneration in the production zones</p>
	<p>Indicator 12 (GEF 7 Core indicators 6): GHG emissions mitigated (tCO2-eq)</p>	0	No change (project outcomes and impacts not achieved at this stage)	132,795 tCO2-eq	<p>Means of verification: Field/plot surveys. Project reports. Updated GEF7 Core Indicator 6 FAO EX-ACT Tool Assumptions: Project does not encounter critical risks that derail implementation.</p>
	<p>Indicator 13 : # of landscapes or jurisdictions with LDN voluntary targets</p>	0	1	1 (LDN targets set up and monitoring mechanisms for Karakalpakstan)	<p>Means of verification: UNCCD reports; LDN National Monitoring and Action Plan reports on LDN subnational target in Karakalpakstan; ; Project reports (including final evaluation report). Assumptions: Interest from the local/regional and central government, private sectors and farmers in achieving land degradation neutrality through a combination of Sustainable</p>

					Land Management (SLM) measures.
	Indicator 14 : (KM): Existence of mandatory methodologies on LDN and SLM measures applicable for practical improvements of land management and land use planning	N/A	Environmental data collected, methodologies elaborated and first drafts of different knowledge products are discussed with local and national authorities and other key project partners Available UNCCD-promoted innovative LDN compliant land use planning module based on the results of the GEO-LDN Technology Innovation Competition (Output 2.2).	1 Manual with Guidelines on Establishing LDN sub-national targets (showcasing Karakalpakstan experience) 1 Manual with Guidelines on LDN compatible Integrated Land Use Planning 2 Guidelines on pastures and forest management planning to achieve LDN, for local natural resources users 1 LDN compatible GIS based Land Use Concept 1 available innovation land use planning module (promoted by UNCCD)	Means of verification: Annual PIR reports validated through MTR and final evaluations; bilateral interviews. Assumption: There is interest towards adopting KM tools generated by the project and change land use planning practices at local levels
	Indicator 15: Status of integrated LDN compatible land use planning in LADAB landscape	No integrated LDN compatible land use planning in LADAB landscape	Integrated land use planning inter-sectorial district level committees set up and criteria and methodologies defined for the assessments of arable lands and ecosystem services and degrees of degradation.	4 Integrated LDN compatible Spatial and Land use completed and under implementation for priority districts including identified PAs buffer zones and corridors for improved biodiversity integration.	Means of verification: Project reports, monitoring visits and interviews with stakeholders; GIS analysis of targeted project intervention areas; Project supported expert mapping according to LDN avoid/reduce/restore hierarchy. MTR and final evaluation reports; Assumptions: Existing interest from the local/district level authorities to implement LDN centered integrated land use planning.
Outputs: Output 2.1 LDN progress assessment for Karakalpakstan completed; regional LDN targets confirmed, future actions developed, and monitoring systems proposed; LDN action plan updated Output 2.2 Integrated land-use spatial planning in 4 priority districts developed and under implementation in line with LDN principles Output 2.3 Improved management of pastureland by local communities in 4 priority districts Output 2.4 Innovative land restoration supported at most degraded areas Output 2.5 Community forest use in riparian corridors in 4 priority districts developed and under implementation					
	Indicators	Baseline	Mid-term Target	End of Project Target	Means of Verifications and Assumptions

<p>Component 3: Conservation of globally significant Aral basin biodiversity</p> <p>Outcome 3.1 Lake, wetland, and riparian corridor KBAs secured through strengthened protected area estate</p>	<p>Indicator 16 (GEF 7 Core Indicator 1.1) : Terrestrial protected areas created for Conservation and sustainable use (ha)</p>	829,036 ha ⁴³	Flora and fauna inventories and critical habitat mapping completed Baseline assessment developed Consultations with the local communities under implementation	3,094,600 ⁴⁴	<p>Means of verification: Updated government reports/ National communications to UNCBD Project evaluation reports; Field mission reports</p> <p>Assumptions: Interest from the central government, private sectors and farmers in biodiversity conservation; No major negative impact on the availability of the state budget for the protection and management of new and existing PAs.</p>
	<p>Indicator 17 (GEF 7 Core Indicator 1.2) : Terrestrial protected areas under improved management for conservation and sustainable use (ha)</p>	0 ha	Flora and fauna inventories and critical habitat mapping completed Baseline assessments developed and/or validated Improved zoning supported by georeferenced data Methodology and /or TORs for improved PAs infrastructure completed	757,329 ha ⁴⁵	<p>Means of verification: Updated government reports/ National communications to UNCBD Project evaluation reports; Field mission reports</p> <p>Assumptions: Interest from the central government, private sectors and farmers in biodiversity conservation; No major negative impact on the availability of the state budget for the protection and management of new and existing PAs.</p>
	<p>Indicator 18 Change in the capacity of the management of existing Protected</p>	Lower Amu Darya State Biosphere Reserve (METT score: 63)	Lower Amu Darya State Biosphere Reserve (METT score: 70)	Lower Amu Darya State Biosphere Reserve (METT score: 76)	<p>Means of verification: Project technical reports GEF terminal evaluation</p>

⁴³ Sum of existent PAs (IUCN category managed) within the scope of the project: (i) Kyzylkum National Reserve (I) (10,311 ha); State Complex Landscape Sanctuary Saygachy (Ib) (628,300 ha); Lower Amudarya State Biosphere Reserve (68,718 ha); Khorezm National Nature Park (21,687 ha); Dengizkul Refuge/Zakaznik (50,000 ha); Sudochoye State Refuge (50,000 ha)

⁴⁴ Sum of : territories of the 5 new PAs created within the framework of this project: South Ustyurt National Park(II) 1,400,000 ha; Central Kyzylkum National Park(II) 1,000,000 ha; Sudochoye Lakes System State Wildlife Sanctuary (IV) 84,700 ha; Akdarya-Kazakhdarya interfleuve (IV) 22,200 ha; Akpetki (IV) 587,700 ha

⁴⁵ Sum of the existing PAs with improved biodiversity management capacities: Lower Amudarya State Biosphere reserve (I) 68,718 ha; Kyzylkum State reserve (Ia) 10,311 ha; Saygachy State Refuge (IV) 628,300 ha; Dengizkul State Refuge (IV) 50,000 ha (*Sudochoye State Refuge (50,000 ha) not counted in order to avoid double counting and overlapping with the newly created PA: Sudochoye Lakes System 84,700 ha)

	<p>Areas to implement effective biodiversity conservation and sustainable management measures</p>	<p>Kyzylkum State Reserve (METT score:51)</p> <p>Saigachy State Refuge (METT score: 68)</p> <p>Dengizkul State Refuge (METT score 22)</p> <p>State refuge Sudochye (METT score 37)</p>	<p>Kyzylkum State Reserve (METT score:60)</p> <p>Saigachy State Refuge (METT score: 71)</p> <p>Dengizkul State Refuge (METT score 34)</p> <p>State refuge Sudochye (METT score 56)</p>	<p>Kyzylkum State Reserve (METT score:68)</p> <p>Saigachy State Refuge (METT score: 76)</p> <p>Dengizkul State Refuge (METT score 40)</p> <p>State refuge Sudochye (METT score 65)</p>	<p>report; Field mission reports; METT Scorecards</p> <p>Assumptions: At least baseline funding is maintained; Continued political will to strengthen governance of biodiversity and ecosystem services through effective management PA System</p>
	<p>Indicator 19: Stable or positive changes in the population of globally significant biodiversity indicator species at the newly designated PAs</p> <ul style="list-style-type: none"> • Ustyurt ram <i>Ovis vignei arkal</i> • Goitered gazelle <i>Gazella subgutturosa</i> • Kulan <i>Koulan equus hemionus</i> • Marbled duck <i>Marmaronetta angustirostris</i> • White headed duck <i>Oxyura leucocephala</i> • Central Asian tortoise <i>Testudo horsfieldii</i> • Flamingo <i>Phoenicopterus roseus</i> • White eyed pochard <i>Aythya nyroca</i> • Dalmatian pelican <i>Pelecanus crispus</i> • Pin tailed sandgouse <i>Pterocles alchata</i>. 	<p>Baseline to be validated/complemented at project inception</p> <p><u>South Ustyurt National Park</u></p> <ul style="list-style-type: none"> • Ustyurt ram <i>Ovis vignei arkal</i> (100 individuals) • Goitered gazelle <i>Gazella subgutturosa</i> (600 individuals) • Kulan <i>Koulan equus hemionus</i> 50 individuals <p><u>Central Kyzylkum National Park</u></p> <ul style="list-style-type: none"> • Marbled duck <i>Marmaronetta angustirostris</i> 20 nesting pairs • White headed duck <i>Oxyura leucocephala</i> at 20 individuals • Central Asian tortoise <i>Testudo horsfieldii</i> at least 1 individual/hectare <p><u>Sudochye system of lakes Refuge</u></p> <ul style="list-style-type: none"> • Flamingo <i>Phoenicopterus roseus</i> at least 1 nesting colony • White eyed pochard <i>Aythya nyroca</i> 200 individuals 	<p>Non-deterioration of baseline status</p>	<p>Increase relative to baseline. (to be refined by the new PAs management units).</p>	<p>Means of verification: Field inventories; project reports validated by GEF MTR and GEF Terminal Evaluation</p> <p>Assumptions: New threats do not emerge</p>

<p>Outcome 3.2 Lake, wetland and riparian corridor biodiversity mainstreamed in sustainable land-use:</p>	<p>Indicator 20: Stable or positive changes in the population of globally significant biodiversity indicator species in the existent targeted PAs</p> <ul style="list-style-type: none"> • Bukhara deer <i>Cervus elaphus bactrianus</i> • Goiterred gazelle <i>Gazella subgutturosa</i> • Saker falcon <i>Falco cherrug</i> • Khiva pheasant <i>Phasianus colchicus chryzomelas</i> • Saiga antelope <i>Saiga tatarica</i> • Bustard-Hawbar <i>Chlamydotis undulata</i> • White headed duck <i>Oxyura leucocephala</i> • Pink flamingo <i>Phoenicopterus roseus</i> • White eyed pochard <i>Aythya nyroca</i> 	<ul style="list-style-type: none"> • Saker falcon <i>Falco cherrug</i> occasional nesting (expected to increase to at least 1-2 nesting pairs) <p>Akpetki</p> <ul style="list-style-type: none"> • Dalmatian pelican <i>Pelecanus crispus</i> 100 individuals; • Pin tailed sandgouse <i>Pterocles alchata</i> 1000 individuals (fly-bys) <p>Baseline: as indicated in the METT scorecards</p>	<p>Midterm target: As indicated in the METT scorecards</p>	<p>End project target: As indicated in the METT scorecards</p>	<p>Means of verification: State Committee on Ecology and Environmental protection official records; National Reports to CBD METT scorecards monitoring validated by GEF MTR and GEF Terminal Evaluation</p> <p>Assumptions: Project lifetime is sufficient to allow positive changes to be generated and monitored; New threats do not emerge.</p>
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	<ul style="list-style-type: none"> Saker falcon <i>Falco cherrug</i> Dalmatian pelican <i>Pelecanus onocrotalus</i> Mute swan <i>Cygnus olor</i> 				
	<p>Indicator 21 (KM): Updated and accessible data on species and habitats, available for PAs managers and environmental inspectors, for improved biodiversity management.</p>	<p>Insufficiently developed data base in the PAs and environmental information on critical key species and habitats; Poor integration of existing data sets on biodiversity requirements in different sectors Poor PAs zoning and awareness and knowledge on the importance of integrating biodiversity into broader land use planning Poor knowledge and capacities of PA managers on the potential for sustainable biodiversity management, ecosystem services and ways to involve local communities and create additional income generating activities (aligned with applicable legislation)</p>	<p>Environmental data collected and methodologies elaborated. Assessments of ecological and cultural values; economic assessment of ecotourism potential in new and existing PAs</p>	<p>(i) Data base on species and habitats related to existing PAs improved and accessible; (ii) New environmental information collected through inventories at new designated PAs available; (iii) PAs managers have a better access to environmental information and improved knowledge management (iv) PA managers and local authorities and local resource users have access to data on economic potential of nature based tourism (ecotourism) activities in buffer and production zones</p>	<p>Means of verification: Monitoring via annual project reporting (PIRs) verification at MTR and final project evaluation; METT scorecards Assumptions: No major risk to project activities emerge. PAs inventories implemented as planned. Co-financing stable.</p>
	<p>Indicator 22 (KM): Existence of capacity building for environmental inspectors and border officials, PAs staff in Biodiversity management trainings and community outreach events ;</p>	0	15 trainings (30% female participants)	24 trainings and outreach events (30 % female participants)	<p>Means of verification: Monitoring via annual project reporting (PIRs) verification at MTR and final project evaluation; project reports; workshop proceedings; Assumptions: No major risk to project activities emerge</p>
	<p>Indicator 23 : Number of local communities</p>	0	1	2 i) agreements for suitable relocation of part of Bukhara	<p>Means of verification: Monitoring via annual project reporting (PIRs)</p>

	supported agreements on PAs buffer zones and ecological corridors.			deer population outside Lower Amudarya Reserve and ii) agreement on creation of an ecological corridor for Bukhara deer at the border with Kyzylkum State Reserve	verification at MTR and final project evaluation Assumptions: Local communities are interested to support biodiversity friendly agricultural practices in buffer zones (e.g. Kyzylkum Reserve and Lower Amudarya Reserve) and are open to cooperation with PAs staff in creation of ecological corridors for wildlife.
	Indicators 24: Farmers /producers' net income (differentiated by gender) from sustainable products (livestock, hay, seeds, dried fruits, medicinal plants, handicrafts) resulted from biodiversity friendly agricultural practices in PA buffer and production zones	Baseline will be assessed during the first year. Net Income men: \$ X Net income women: \$ X Net income of at least 80% of participating farmers (male/ female) documented at project inception (year 1)	Net Income men: \$X + 20% Net income women: \$X + 20% Participating farmers show at least 20% increase based on year 1 estimate.	Net Income men: \$X + 50% Net income women: \$X + 50% Participating farmers show at least 50% increase based on year 1 estimate.	Means of verification: Monitoring via Council of Farmers extension service; households survey; annual project reporting (PIRs) verification at MTR and final project evaluation; UNCCD/WOCAT knowledge platform project contribution (recorded socio-economic benefits); Assumptions: No major risk to project activities emerge; climate change; markets available; proposed practices are cost effective, have low barrier for uptake especially among female farmers.
Output 3.1.1 Grounds established for protected area estate expansion securing the integrity of lake, wetland and riparian KBAs in Aral Sea region, through completion of feasibility studies, mapping and inventory, zoning regimes, management and financial planning Output 3.1.2 Improved management effectiveness of the existing PAs through PA regime compliance and enforcement, zoning, patrolling, research, species-focused conservation activities, as detailed in the narrative for the project strategy Output 3.2.1 PA buffer zones and corridors identified, planned and mapped through integrated district land use management plans (coordinated with Output 2.2) and implemented with supporting regulations Output 3.2.2 Training and capacity strengthening of local environmental inspectorates and border security Output 3.2.3 Sustainable livelihoods supported in KBA buffer zones and corridors (e.g. fast-growing plantations as alternative to logging; cattle grazing rotation and use of distant pastures).					
	Indicators	Baseline	Mid-term Target	End of Project Target	Means of Verifications
Component 4 International cooperation and	Indicator 25 (KM): Improvement of environmental awareness of different	Baseline will be re-assessed at Inception stage.	Awareness raising activities under implementation	10% increase relative to baseline over a rolling 5-year period (target to be validated at inception stage)	Means of verification: End of project Awareness questionnaire validated by final project evaluation.

<p>knowledge management</p> <p>Outcome 4.1 Increased level of awareness among local communities about LDN and key biodiversity values of the Aral Sea Region in connection with the water use patterns</p> <p>Outcome 4.2 Uzbekistan's cooperation in the international environmental programming for the Aral Sea basin strengthened.</p>	<p>stakeholders on biodiversity, integrated water management, integrated land management SLM and LDN and benefits for livelihoods:</p> <p>(i)General level of awareness on the problems associated with unsustainable water use, land degradation, loss of biodiversity</p> <p>(ii)Degree of Awareness of local communities on the importance and role of ecosystem services provided by wetlands and lakes to sustainable livelihoods</p> <p>(iii)Degree of Awareness of specialists and public sector employee on LDN</p> <p>(iv)Degree of awareness of local communities on importance of water saving technologies in irrigation sector</p> <p>(v)Degree of awareness and existence of sufficient technical knowledge on SLM at local community level</p>	<p>General level of awareness on the problems associated with unsustainable water use, land degradation, loss of biodiversity: 50%</p> <p>Degree of Awareness of local communities on the importance and role of ecosystem services provided by wetlands and lakes to sustainable livelihoods: 27%</p> <p>Degree of Awareness of specialists and public sector employee on LDN: 30%</p> <p>Degree of awareness of local communities on importance of water saving technologies in irrigation sector: 55%</p> <p>Degree of awareness and existence of sufficient technical knowledge on SLM at local community level: 44%</p>			<p>Awareness and education events evaluation forms. Stakeholders' interviews. Exiting press releases and publications; Project reports.</p> <p>Assumptions: Effective dissemination of knowledge products regarding integrated water and land management, LDN/SLM ecological and economic benefits. There is interest and active participation of local natural resources users and decision makers in the awareness raising events.</p>
	<p>Indicator 26 (KM): Access to, and sharing of, environmental</p>	<p>The environmental information needs are not identified.</p>	<p>Communication Plan and information objectives established and under implementation</p>	<p>Information on the knowledge generated within the project is accessible to different groups of stakeholders through different</p>	<p>Means of verification: Monitoring via PIRs (Annual project reports) validated by MTR and final evaluations;</p>

	information by stakeholders	Poor existing level of information regarding integrated water management, LDN/SLM and biodiversity species and habitats, and importance of wetlands and lakes and riparian zones to environment and livelihoods.		channels: (i) Printed and translated materials and information, brochures, available handbooks for farmers; (ii) Analytical reports available to support Uzbekistan in negotiations under Integrated Fund for Ara Sea (IFAS) and the UN Multi-Partner Human Security Trust Fund for the Aral Sea Region in Uzbekistan (UN MPHSTF (iii) video documentary (iv) handouts and technical information disseminated during seminars(v) Project website and social media presence, blogs, moderated dialogues (vi) available knowledge shared on UNCCD/ WOCAT platform; CACILM II platform.	project reports; workshop proceedings; various questionnaires and interviews with stakeholders; contributions to WOCAT and CACILM II platforms; Assumptions: Effective dissemination of knowledge products regarding integrated water and land management, LDN/SLM ecological and economic benefits.
	Indicator 27 (KM): Number of awareness and training events raising awareness and strengthening technical knowledge level on integrated, biodiversity friendly land-water management and wetlands ecosystem services.	0	Training modules designed Methodology developed 10 trainings implemented Communication Plan under implementation 10 awareness events implemented	30 trainings 4 Farmers Field Schools 20 awareness events South-South exchange 5 water diplomacy seminars	Means of verification: Monitoring via PIRs (Annual project reports) validated by MTR and midterms and final evaluations; project reports; workshop proceedings; various questionnaires and interviews with stakeholders; Assumptions: No major obstacles to project implementation; Effective dissemination of knowledge products regarding integrated water and land management, LDN/SLM ecological and economic benefits.
	Indicator 28 (KM): Number of regional water forums under IFAS, to which government counterparts and country	0	1	3	Means of verification: Monitoring via PIRs (annual project reports), workshop proceedings; interviews with stakeholders. Assumptions: There is an active participation of the

	representatives with strengthened technical capacities are participating				government into the project activities; there is no major obstacle to project implementation ; regional water negotiations forums are organized as planned.
<p>Output 4.1.1 Education and awareness raising campaigns for local resource users about key biodiversity values and sustainable land-use management regimes and regulations</p> <p>Output 4.1.2 Awareness campaign for sustainable water use targeting decision-makers at local and regional levels</p> <p>Output 4.2.1 The Government, scientific community and NGOs supported (e.g. through preparation of science-based technical papers, communications/negotiations with other Aral Sea basin countries, and international advice where relevant) in developing and negotiating decisions on the Aral Sea basin at the international level</p> <p>Output 4.2.2 Donor/private sector/Government platform on replenishing the UN MPHSTF functions resulting in agreed new projects/activities focusing on integrated approaches towards water resource management and climate-smart land and resource use</p>					
Component 5 Monitoring and Evaluation	<u>Indicator 28</u> Monitoring and Evaluation reports Evaluative knowledge available to project partners	N/A	<ul style="list-style-type: none"> • Midterm evaluation report • M&E activities 	<ul style="list-style-type: none"> • Reports with monitored and evaluated project results (GEF midterm and final reports) • Quarterly monitoring activities (UNDP) 	<p>Means of verification: Project reports; Assumptions: No major obstacles to project implementation. Stakeholders are interested and willing to participate in the project activities.</p>
<p>Output 5.1.1. Set of monitoring and evaluation activities</p> <p>- Monitored/evaluated project results, and evaluative knowledge incorporated in the project adaptive management</p>					

V. MONITORING AND EVALUATION (M&E) PLAN

194. 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.

195. 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. 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](#)⁴⁶. 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.

196. 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

197. 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. Agree on a COVID-19 Project Strategy and measures to mitigate any delays that could occur due to reinstatement of COVID-19 related restrictions.
- e. 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.
- f. 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.
- g. Review financial reporting procedures and budget monitoring and other mandatory requirements and agree on the arrangements for the annual audit.
- h. Plan and schedule Project Board meetings and finalize the first-year annual work plan.
- i. Formally launch the Project.

GEF Project Implementation Report (PIR)

198. The annual GEF 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.

⁴⁶ See https://www.thegef.org/gef/policies_guidelines

GEF and/or LDCF/SCCF Core Indicators

199. The GEF and/or LDCF/SCCF Core indicators included as Annex 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 required Protected Area Management Effectiveness Tracking Tool (METTs) have been prepared and the scores include in the GEF Core Indicators and will be updated during the MTE and TE.

Independent Mid-term Review (MTR)

200. 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 \(ERC\)](#). 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. 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. The final MTR report and MTR TOR will be publicly available in English and will be posted on the UNDP ERC. A management response to MTR recommendations will be posted in the ERC within six weeks of the MTR report’s completion.

Terminal Evaluation (TE)

201. 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](#). 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. 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.

202. The final TE report and TE TOR will be publicly available in English and posted on the UNDP Evaluation resource Center ERC. A management response to the TE recommendations will be posted to the ERC within six weeks of the TE report’s completion.

Final Report

203. 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

204. 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 Policy⁴⁷ and the GEF policy on public involvement⁴⁸.

⁴⁷ See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/

⁴⁸ See https://www.thegef.org/gef/policies_guidelines

205. Monitoring and Evaluation Plan and Budget

GEF M&E requirements	Responsible Parties	Indicative costs (US\$)		Time frame
		GEF Grant	Co-financing	
Inception Workshop	Implementing Party UNDP Country Office	\$15,000	\$ 15,000	Within 60 days of CEO endorsement of this project.
Inception Report	Project Manager	None	None	Within 90 days of CEO endorsement of this project.
Monitoring of GEF core indicators and other indicators in project results framework	Project Manager Project M&E expert Project Task Leaders	Paid through project components	Budgeted as part of co-financing under project components	Annually prior to GEF PIR
GEF Project Implementation Report (PIR)	UNDP Country Office ¹¹ UNDP/GEF RTA	None	None	Annually
Monitoring all risks and safeguards (UNDP risk register)	UNDP Country Office Project manager	None	None	Quarterly, annually
Supervision missions	UNDP Country Office	None ¹²	\$15,000	Quarterly
Update Mid-term GEF Core indicators and METT (at midterm)	Implementing Partner Project Manager UNDP Country office	Paid through Component 3	\$5,000	Before mid-term review mission takes place.
Independent Mid-term Review (MTR)	UNDP Country Office UNDP/GEF RTA	22,600	\$10,000	2025
Update GEF Core indicators and METT (at project end)	Implementing Partner Project Manager UNDP Country Office	Paid through Component 3	\$5,000	Before terminal evaluation mission takes place
Travel	UNDP CO	6,120	None	Midterm and final evaluations
Independent Terminal Evaluation (TE)	UNDP Country Office UNDP/GEF RTA	23,000	\$10,000	2026
Project final workshops/conferences	Implementing Party UNDP Country Office	15,000	15,000	At least two months before the end of the project
Project final report	Project Manager	None	None	Within two weeks from the final project workshop/conference
TOTAL indicative COST (Do not exceed 5 % when GEF project grant up to USD 5 million.)		\$81,720	\$75,000	

VI. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

Roles and responsibilities of the project's governance mechanism

206. The Implementing Partner: for this project is the State Committee on Ecology and Environment Protection (SCEEP). The Project will be nationally implemented (NIM) in line with the Standard Basic Assistance Agreement between the Government of Uzbekistan and the United Nations Development Programme (UNDP), signed by parties on June 10, 1993. 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.

207. The Implementing Partner is responsible for executing this project. Specific tasks include:

- 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.
- Risk management as outlined in this Project Document;
- Procurement of goods and services, including human resources;
- Financial management, including overseeing financial expenditures against project budgets;
- Approving and signing the multiyear workplan;
- Approving and signing the combined delivery report at the end of the year; and,
- Signing the financial report or the funding authorization and certificate of expenditures.

208. The Partner Capacity Assessment Tool (PCAT) and the HACT Micro assessment confirmed that the State Committee for Ecology and Environmental Protection (SCEEP) is able to act as Implementing Partner for this project, the Overall Risk has been categorized as Low. SCEEP is a governmental body with 1,965 employees with an institutional mandate in the environmental field, that is relevant for the project and responds to the key programmatic criteria, having the capacities to ensure quality programme management, provide synergies, replicate and upscale project results, mobilize development partners and ensure national-level co-financing for the project. To date the SCEEP has not implemented any projects with direct transfer of UNDP donor funds to its account. The organization has though implemented projects with other governmental funding sources and as such has a full set of procedures and documentation for all aspects of project management including planning, risk assessment, monitoring, reporting and result assessment; accounting policies and procedures, fixed assets and inventory, financial reporting and procurement. Therefore, SCEEP may require some additional support to implement procurement and financial transactions and to understand UNDP format of financial reporting.

209. In addition, the PCAT and HACT assessments as well as extensive consultations with the SCEEP have indicated certain capacity limitations related to the national legislation and internal regulations. For example, the financial execution of a standalone donor-funded project requires some institutional adjustments that the SCEEP is currently exploring. SCEEP will implement any necessary operational adjustments in coordination with the Ministry of Finance. Due to these capacity constraints, support services of UNDP are specifically requested on an exceptional basis.

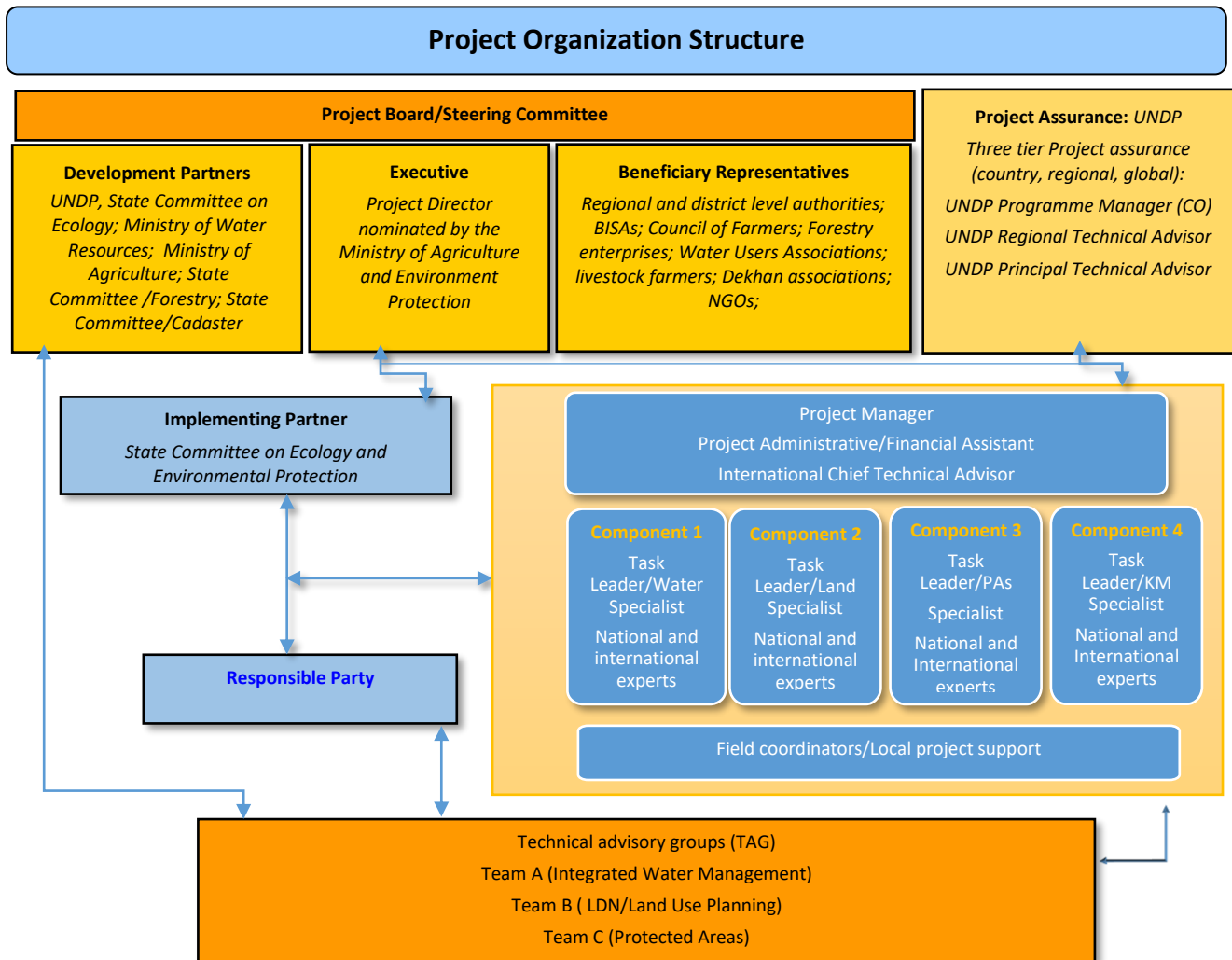
210. UNDP: is accountable to the GEF for the implementation of this project. UNDP is also responsible for the Project Assurance role of the Project Board/Steering Committee. In accordance with the GEF Guidelines on Project Cycle C95.Inf.03 dated 20 July 2020 and as requested by the Implementing Partner (SCEEP) UNDP will provide specific support services and at the same time will ensure a firewall between personnel involved in service provision and personnel involved in oversight. The specific support services are estimated to be focused on: international procurement and payments; national procurement of services (such as capacity development); implementation of the Micro-Grant component; implementation of the Innovation Challenge. In addition, during the inception phase, UNDP country office will organize a series of internal training sessions to strengthen the capacity of the Implementing Partner in project management and capacitate the PMU to implement UNDP/GEF funded projects. The internal training sessions will focus on UNDP/GEF procedures, project technical, administrative and financial implementation aspects, aligned with the International Public Sector Accounting Standards (IPSAS). To guide the State Committee for Ecology and Environmental Protection during the project implementation, a Project Operations Manual will be prepared by UNDP and agreed upon by the SCEEP during the Inception Phase. The NIM Manual will include operational principles giving details of all guidelines and procedures agreed

with UNDP and the IP for the implementation, supervisions and monitoring and evaluation of the project, including procedures for the identification and selection of the beneficiaries, grants rules and procedures, a financial management plan and agreements on the institutional framework required for implementation. UNDP TRAC resources will support the payment of two additional positions: Project Procurement Specialist and a UNDP Programme Financial Assistant, to support the SCEEP with procurement, payments and quarterly financial reporting.

211. Responsible Party:The Regional Environmental Centre for Central Asia (CAREC) was identified as the Responsible Party for the implementation of Component 4 (Knowledge Management). The selection of the RP was discussed and agreed between the SCEEP and UNDP. The existing independent HACT assessments of CAREC is confirming the low overall risks associated with its capacity to support project execution. UNDP and SCEEP dialogue with CAREC and past collaboration, have further confirmed its value added for the implementation of the Knowledge Management component of the project (Component 4). CAREC is an independent, non- political and not-for profit international organization with regional mandate to assist the Central Asian government, regional and international stakeholders in addressing environmental and sustainability challenges. CAREC was established in 2001 by a joint decision of all five Central Asian states (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan), European Union and UNDP, following the resolution of the IV Pan-European Conference held in 1998, Aarhus (Denmark). By promoting dialogue and collaboration among all environmental stakeholders, CAREC is a leading regional knowledge hub in the field of environment and sustainable development recognized by national, regional and international partners. Operating through its head office located in Almaty, Kazakhstan and well-established country office network in five Central Asian states, CAREC is a prominent partner in the environmental cooperation in the region, implementing projects worth a total of EUR 26.5 million, in the following areas: (i) Water Initiatives Support; (ii) Climate Change and Sustainable Energy;(iii) Environmental Management; (iv) Education for Sustainable Development; (v)Environment and Health.

212. Governance role for Project Target Groups: Project target groups will be represented at the Project Board as well as be engaged through Technical Advisory Groups (TAG). Technical Advisory Groups (TAG) members bring unique knowledge and skills, which complement the knowledge, and skills of the formal board in order to more effectively direct the technical interventions within the project. The advisory groups serve to make recommendations and/or provide key information and materials to the project manager, International Technical Advisor and to the Board.

213. The proposed Project Organization Structure is presented below:



214. The Project Board (also called Project Steering Committee): 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.

215. 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.

216. Specific responsibilities of the Project Board would be the following:

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
- Address project issues as raised by the project manager;
- Provide guidance on new project risks, and agree on possible mitigation and management actions to address specific risks;
- 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;
- Advise on major and minor amendments to the project within the parameters set by UNDP-GEF;
- Ensure coordination between various donor and government-funded projects and programmes;
- Ensure coordination with various government agencies and their participation in project activities;
- Track and monitor co-financing for this project;
- Review the project progress, assess performance, and appraise the Annual Work Plan for the following year;
- Appraise the annual project implementation report, including the quality assessment rating report;

- Ensure commitment of human resources to support project implementation, arbitrating any issues within the project;
- Review combined delivery reports prior to certification by the implementing partner;
- Provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
- Address project-level grievances;
- Approve the project Inception Report, Mid-term Review and Terminal Evaluation reports and corresponding management responses;
- Review the final project report package during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.
- Ensure highest levels of transparency and take all measures to avoid any real or perceived conflicts of interest

217. The composition of the Project Board include the following roles:

- *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. The Project National Director (PD) will be the Chairperson of the State Committee on Ecology and Environmental Protection who will be accountable for the achievement of objectives and results in the project. The PD will be part of the Project Board and answer to it. The PD will be financed through national government funds (co-financing).
- *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. The Beneficiary representatives will be nominated at the Inception Phase and may include: regional and district-level governments (khokyms), regional/district departments of the institutions responsible with the natural resources management, land use planning/cadaster, water users (WUAs, Council of Farmers extension service offices in targeted districts; local forestry enterprises; private entrepreneurs/farmers; local communities representatives (from the participating kishlaks and auls) in the Lower Amudarya and Aral Sea Basin (LADAB) targeted districts. The beneficiary representatives will be confirmed during the project Inception Phase.
- *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 Partners may include the key partners and central government authorities actively participating in the project : UNDP Resident Representative; Ministry of Water Resources; the Ministry of Agriculture, State Committee on Forestry; International Innovation Center for Aral Sea Region; NGOs and academic institutions. The Development Partners will be confirmed during the project Inception Phase.
- *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. 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 the Project Management function.

218. Project extensions: The UNDP-GEF Executive Coordinator must approve all project extension requests. 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 during the extension period must be covered by non-GEF resources.

219. The Project Manager has the authority to run the project on a day-to-day basis on behalf of the Project Board within the constraints laid down by the Board. The Project Manager is responsible for day-to-day management and decision-making for the project. The Project Manager's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost.

220. The Implementing Partner will recruit the Project Manager, according to the NIM rules, who should be different from the nominated Project Director. Specific responsibilities include:

- Provide direction and guidance to project team(s)/ responsible party (ies);
- Liaise with the Project Board to assure the overall direction and integrity of the project;
- Identify and obtain any support and advice required for the management, planning and control of the project;
- Responsible for project administration;
- Plan the activities of the project and monitor progress against the project results framework and the approved annual workplan;
- Mobilize personnel, goods and services, training and micro-capital grants to initiative activities, including drafting terms of reference and work specifications, and overseeing all contractors' work;
- Monitor events as determined in the project monitoring schedule plan/timetable, and update the plan as required;
- Manage requests for the provision of financial resources by UNDP, through advance of funds, direct payments or reimbursement using the fund authorization and certificate of expenditures;
- Monitor financial resources and accounting to ensure the accuracy and reliability of financial reports;
- Be responsible for preparing and submitting financial reports to UNDP on a quarterly basis;
- Manage and monitor the project risks initially identified and 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 risks log;
- Capture lessons learned during project implementation;
- Prepare the annual workplan for the following year; and update the Atlas Project Management module if external access is made available.
- Prepare the GEF PIR and submit the final report to the Project Board;
- Based on the GEF PIR and the Project Board review, prepare the AWP for the following year.
- Ensure the mid-term review process is undertaken as per the UNDP guidance, and submit the final MTR report to the Project Board.
- Identify follow-on actions and submit them for consideration to the Project Board;
- Ensure the terminal evaluation process is undertaken as per the UNDP guidance, and submit the final TE report to the Project Board.

221. The Project Manager (PM) will be supported by a Project Financial and Administrative Assistant, who will assist in project planning, revisions and budget execution documents and a Procurement Specialist who will conduct the contracting of national / local consultants and all project staff; will monitor contracts, timely completion of deliverables and disbursement of payments. Both positions are reporting to the Project manager. In addition UNDP will support the Project Management Unit by hiring a UNDP Administrative/Financial Programme Associate, who will support the project's Financial and Administrative Assistant with the development of the quarterly NIM financial reports, will provide coaching on UNDP specific NIM financial reporting formats and reconciliation of quarterly expenditures in accordance with UNDP/NIM rules. The Project management unit (PIU) also includes four Task Leaders (TL) and four Field Coordinators (FC) reporting directly to the Project Manager. The Task Leader (TL) is responsible for the technical work under the assigned Project Component and for the implementation of activities in support of the technical outputs and outcomes under the respective component. The Field Coordinator (FC) is working in coordination with the Task Leaders, in the assigned district and will be responsible for technical support to implementation of activities in the assigned targeted district and delivering the project's technical outputs at local level, by providing technical guidance to project experts and facilitating project inception workshops, liaison with local stakeholders, supporting trainings and awareness sessions and field missions. An International Technical Advisor will provide overall technical backstopping and management support to the Project. A Driver with own car will support the project management unit's travel within Tashkent and field missions.

222. Technical support: Additional technical expertise will be complemented by expert organizations such as the International Center for Agricultural Research in Dry Areas (ICARDA)- mainly for land management related outputs and the International Fund for Saving the Aral Sea (IFAS)- mainly for water management related outputs. These organizations will be part of the Technical Advisory Groups (TAGs).

223. The International Centre for Agricultural Research in the Dry Areas (ICARDA) is an international organization undertaking research-for-development, providing innovative, science-based solutions for communities across the non-

tropical dry areas. ICARDA's founding charter⁴⁹ was signed in 1975, with three United Nations agencies (FAO, UNDP and the World Bank) as co-sponsors, and Canada's International Development Research Centre as the executing agency. Since 1998, ICARDA is present in Central Asia and the Caucasus through its regional office in Tashkent, operating under the legal agreement with the Government of Uzbekistan. Since inception, ICARDA implemented research-for-development programs in 50 countries across the world's dry areas to ensure that local issues are addressed, and solutions shared at global scale - from Morocco in North Africa to Uzbekistan in Central Asia and Bangladesh in South Asia. ICARDA employs total of 384 staff (incl. 62 international, 164 national staff and 158 consultants) located in 5 regions Uzbekistan hosts the regional office serving all five Central Asian countries and three countries in the Caucasus. The main expertise and capacity of ICARDA that would be leveraged within the framework of this project is particularly focused on soil, water, salinity and crop management and resilient agrosilvopastoral systems for the realization of outputs under Component 2.

224. The IFAS Agency was established in 1998 and it is a working body of the International Fund for Saving the Aral Sea (IFAS) with the status of an international organization. In Uzbekistan, the IFAS Agency is accredited by the Ministry of Foreign Affairs as the representative office of the Executive Committee of the IFAS. The IFAS Agency operations and portfolio of projects are carried out jointly with the Nukus branch of the Executive Committee (EC). Together, they are implementing a portfolio of a total of approximately 9 million USD (donor funded projects and state funded investments). The IFAS Agency is currently leading a number of projects aiming at the reconstruction of water infrastructure in the LADAB area under the project focus. The relevant synergy opportunities and technical expertise will be leveraged in support of the project outputs under Component 1.

VII. FINANCIAL PLANNING AND MANAGEMENT

225. The total cost of the project is *USD 62,876,968*. This is financed through a GEF grant of *USD 3,552,968* and through *USD 270,000* in cash co-financing to be administered by UNDP and through *USD 59,320,000* in other 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.

226. 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. Co-financing will be used for the following project activities/outputs:

Co-financing source	Co-financing type	Co-financing amount	Planned Co-financing Activities/ Outputs	Risks	Risk Mitigation Measures
Ministry of Water Resources	Public investment (Investment mobilized)	40,000,000	Collection of information for the development of the Integrated Water Management Framework and district level Sustainable Water Management Plans (Output 1.1 and Output 1.2); Review and approval of the Integrated Water Management Framework for Lower Amudarya and Aral Sea Basin (LADAB) (Output 1.2); Review and approval/implementation of the four pilot Integrated Water Management Plans in the targeted districts (Output 1.2); Review and approval of the new Concept for integrated water management that will ensure adequate water releases and minimum ecological flow to lakes and wetlands in the lower Amudarya (Output 1.1.); Investments into the maintenance and modernization of the hydrotechnical facilities in the project areas (Output 1.2); Review and approval of amendments to the Water Code(Output 1.1); Support to the Awareness and Education events (Component 4).	Medium	The UNDP Country Office will monitor the co-financing contributions to the project

⁴⁹ <https://www.icarda.org/sites/default/files/2020-09/ICARDA%20Charter.pdf>

Ministry of Agriculture	Grants Public investment (Investment mobilized)	8,000,000	Review and approval/Implementation of land restoration and afforestation measures in targeted areas in Bukhara and Karakalpakstan regions(Output 2.3, 2.4 and 2.5); Investments into the modernization of irrigation systems in irrigated agricultural land in the project areas (Output 1.2); Collection of environmental information for the development of the LDN compatible land use plans (Output 2.1 and Output 2.2); Support to implementation of Awareness and Education events (Component 4).	Medium	The UNDP Country Office will monitor the co-financing contributions to the project
State Committee for Ecology and Nature Protection	Grants Public investment (investment mobilized)	4,840,000	Collection of environmental data for designation of new PAs (Output 3.1.1); Official designation of (3.1.1); Data collection for improved PAs zoning (Output 3.2.1); Updating the management plans of the exiting PAs(3.1.2); Investments into management and monitoring infrastructure of new PAs (Output 3.1.1.). Support to the Awareness events (Output 4.1). Training and capacity building of all PAs staff, and Inspectorates and Border Police (Output 3.2.2). Project management and implementation, M&E /All outcomes and outputs.	Medium	The UNDP Country Office will monitor the co-financing contributions to the project
State Committee for Ecology	In-kind (recurrent expenditures)	680,000	Management of Protected Areas system (Output 3.1.2); Strengthening monitoring and inspection and patrolling capacities of existing PAs (Output 3.1.2).	Low	The UNDP Country Office will monitor the co-financing contributions to the project
Forestry Enterprises	Grants Public investment (Investment mobilized)	1,800,000	Investments into different Sustainable Land Management (SLM) measures in Bukhara and Karakalpakstan regions; development and approval of the pasture management plans (Output 3.2.3), forest management plans (Output 2.5) and land restoration activities (Output .2.4); Awareness and education activities (Component 4).	Medium	The UNDP Country Office will monitor the co-financing contributions to the project .
Council of Farmers	Grants Investment mobilized	4,000,000	Partnership with UNDP. Support to the Implementation of the Micro-scheme for improved livelihoods (Output 3.2.3). Facilitation of the disbursement of funds from the Fund "On Additional Measures to Improve the Activities of Farmers, Dekhkan Farms and Owners of Private Lands" managed by the Council of Farmers (disbursement of funds will be done through a local bank). Support to monitoring results, as per the Micro-grant agreements.	Low	The UNDP Country Office will support the implementation of the Micro-scheme component and will monitor the co-financing contributions to the project.
UNDP	Grants	270,000	Project management and monitoring; Gender mainstreaming; Knowledge management. M&E.	Low	The UNDP Country Office will monitor the co-financing contributions to the project
Total co-finance	In-kind, grants and cash	59,590,000			
Total project	GEF + co-finance	63,142,968			

227. The Implementing Partner and GEF OFP have requested UNDP to provide support services in the amount of *USD\$ 35,530 [Annex 19]* for the full duration of the project, and the GEF has agreed to this request. The GEF Execution Support Letter (signed by the GEF OFP) detailing these support services is included in Annex 2. To ensure the strict independence required by the GEF and in accordance with the UNDP Internal Control Framework, these execution services will be delivered independent from the GEF-specific oversight and quality assurance services (i.e. not done by same person to avoid conflict of interest).
228. 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.
229. 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).
230. Audit: The project will be audited as per UNDP Financial Regulations and Rules and applicable audit policies. Audit cycle and process will be discussed during the Inception workshop.
231. 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 budget⁵⁰.
232. 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 with 3 months of 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.
233. 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 file⁵¹. The transfer should be done before Project Management Unit complete their assignments.
234. 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).
235. 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.

⁵⁰ <https://info.undp.org/global/popp/ppm/Pages/Closing-a-Project.aspx>

⁵¹ See https://popp.undp.org/layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PPM_Project%20Management_Closing.docx&action=default

236. 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.

VIII. TOTAL BUDGET AND WORK PLAN

TOTAL BUDGET AND WORK PLAN			
Atlas Proposal (Award) ID:	00120486	Atlas Primary Output (Project) ID:	00116676
Atlas Proposal or Award Title as in Atlas:	Conservation and sustainable management of lakes, wetlan		
Atlas Business Unit	UZB10		
Atlas Primary Output Project Title as in Atlas:	Conservation and sustainable management of lakes, wetlands, and riparian corridors as pillars of a resilient and land degradation neutral Aral basin landscape supporting sustainable livelihoods		
UNDP-GEF PIMS No.	6465		
Implementing Partner	State Committee for Ecology and Environment Protection (SCEEP)		

Atlas Activity (GEF Component)	Atlas Implementing Agent	Atlas Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Account Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	See Budget Note:
COMPONENT 1: Coordinated water management as basis for LDN and conservation	NIM / IP	62000	GEF	71200	International Consultants	14,500	15,500	4,500	4,500	4,500	43,500	1
				71300	Local Consultants	114,000	103,600	12,750	2,000	2,050	234,400	2
				71400	Contractual Services - Individ	34,650	34,650	34,650	28,650	28,650	161,250	3
				71600	Travel	25,970	20,400	12,500	6,700	7,200	72,770	4
				72100	Contractual Services-Companies	11,200	6,200	6,200	1,200	1,200	26,000	5
				72400	Communic & Audio Visual Equip	800	800	800	800	800	4,000	6
				72800	Information Technology Equipmt	4,000	5,000	-	-	-	9,000	7
				74200	Audio Visual&Print Prod Costs	10,000	1,500	2,000	7,000	2,000	22,500	8
				75700	Training, Workshops and Confer	3,500	9,000	7,000	6,000	7,000	32,500	9
Total Outcome 1						218,620	196,650	80,400	56,850	53,400	605,920	

Atlas Activity (GEF Component)	Atlas Implementing Agent	Atlas Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Account Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	See Budget Note:
COMPONENT 2: Sustainable land management for Land Degradation Neutrality in the target landscape	NIM / IP	62000	GEF	71200	International Consultants	69,000	94,000	9,000	9,000	9,000	190,000	10
				71300	Local Consultants	80,000	94,000	24,950	13,000	24,050	236,000	11
				71400	Contractual Services - Individ	34,650	34,650	94,650	28,650	28,650	221,250	12
				71600	Travel	15,000	18,470	8,000	8,000	9,000	58,470	13
				72100	Contractual Services-Companies	1,200	1,200	31,200	1,200	1,200	36,000	14
				72300	Materials & Goods	8,000	15,000	10,000	10,000	1,700	44,700	15
				72400	Communic & Audio Visual Equip	800	800	800	800	800	4,000	16
				72800	Information Technology Equipmt	4,000	5,000	-	-	-	9,000	17
				74200	Audio Visual&Print Prod Costs	10,000	2,000	3,000	2,000	2,000	19,000	18
				75700	Training, Workshops and Confer	15,000	17,000	9,000	8,900	2,300	52,200	19
Total Outcome 2						237,650	282,120	190,600	81,550	78,700	870,620	
COMPONENT 3: Conservation of globally significant Aral basin biodiversity	NIM / IP	62000	GEF	71200	International Consultants	4,500	4,500	4,500	4,500	4,500	22,500	20
				71300	Local Consultants	47,120	31,520	26,270	12,320	12,370	129,600	21
				71400	Contractual Services - Individ	34,650	34,650	34,650	28,650	28,650	161,250	22
				71600	Travel	10,000	10,000	10,470	9,000	8,000	47,470	23
				72100	Contractual Services-Companies	63,200	99,200	61,200	1,200	1,200	226,000	24
				72200	Equipment and Furniture	50,000	50,000	406,500	-	-	506,500	25
				72400	Communic & Audio Visual Equip	800	800	800	800	800	4,000	26
				72800	Information Technology Equipmt	15,000	-	15,000	-	-	30,000	27
				74200	Audio Visual&Print Prod Costs	5,000	3,000	3,000	-	-	11,000	28
				75700	Training, Workshops and Confer	7,500	15,800	16,000	6,000	4,000	49,300	29
				72600	Grants	-	80,000	100,000	-	-	180,000	30
Total Outcome 3						237,770	329,470	678,390	62,470	59,520	1,367,620	

Atlas Activity (GEF Component)	Atlas Implementing Agent	Atlas Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Account Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	See Budget Note:
COMPONENT 4: International cooperation, and knowledge management	NIM / RP	62000	GEF	71200	International Consultants	8,100	9,000	4,550	9,900	7,050	38,600	31
				71300	Local Consultants	1,600	1,600	5,650	8,000	9,150	26,000	32
				71400	Contractual Services - Individ	28,650	28,650	28,650	28,650	28,650	143,250	33
				71600	Travel	8,800	14,100	9,000	8,470	9,000	49,370	34
				72100	Contractual Services-Companies	30,900	27,500	9,500	10,500	13,500	91,900	35
				72400	Communic & Audio Visual Equip	800	800	800	800	800	4,000	36
				74200	Audio Visual&Print Prod Costs	3,000	2,000	3,000	5,000	8,300	21,300	37
				75700	Training, Workshops and Confer	17,000	23,000	19,000	7,960	5,208	72,168	38
				72500	Supplies	2,500	2,500	2,500	2,500	2,500	12,500	39
				Total Outcome 4						101,350	109,150	82,650
COMPONENT 5: Monitoring and Evaluation	NIM / IP	62000	GEF	71200	International Consultants			21,000		21,000	42,000	40
				71300	Local Consultants			1,600		2,000	3,600	41
				71600	Travel			3,060		3,060	6,120	42
				75700	Training, Workshops and Confer	15,000				15,000	30,000	43
				Total Outcome 5						15,000		25,660

Atlas Activity (GEF Component)	Atlas Implementing Agent	Atlas Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Account Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	See Budget Note:		
COMPONENT 6: Project Management Costs	UNDP	62000	GEF	71400	Contractual Services - Individ	26,494	26,494	26,494	26,494	26,494	132,470	44		
				64397	Direct Project Cost-Staff	7,106	7,106	7,106	7,106	7,106	35,530	45		
		Total Outcome 6						33,600	33,600	33,600	33,600	33,600	168,000	
		04000	UNDP	71600	Travel	1,500	1,500	1,500	1,500	1,500	1,500	7,500	46	
				71300	Local Consultants	1,600	1,600	1,600	1,600	1,600	1,600	8,000	47	
				72400	Communic & Audio Visual Equip	1,000	2,000	2,000	2,000	1,901	8,901	48		
				72800	Information Technology Equipmt	10,000	-	-	-	-	10,000	49		
				74500	Miscellaneous Expenses	500	500	500	500	500	2,500	50		
				74596	Direct Project Costs - GOE	1,500	1,500	1,500	1,500	1,599	7,599	51		
				74100	Professional Services	2,500	2,500	2,500	2,500	2,500	12,500	52		
				71400	Contractual Services - Individ	42,600	42,600	42,600	42,600	42,600	213,000	53		
		sub-total UNDP						61,200	52,200	52,200	52,200	52,200	270,000	
		Total Project Management						94,800	85,800	85,800	85,800	85,800	438,000	
		TOTAL GEF						843,990	950,990	1,091,300	316,250	350,438	3,552,968	
		TOTAL UNDP						61,200	52,200	52,200	52,200	52,200	270,000	
PROJECT TOTAL						905,190	1,003,190	1,143,500	368,450	402,638	3,822,968			

Summary of Funds :

Summary of Funds	Amount Year 1	Amount Year 2	Amount Year 3	Amount Year 4	Amount Year 5	Total
GEF	843,990	950,990	1,091,300	316,250	350,438	3,552,968
UNDP	61,200	52,200	52,200	52,200	52,200	270,000
Total other co-financing	11,864,000	12,364,000	12,664,000	11,364,000	11,064,000	59,320,000
TOTAL	20,484,747	13,719,505	11,236,621	15,157,343	1,512,980	63,142,968

Budget notes

#	Description
Component 1	
1	a) 1/5 of the costs (\$22,500) of the International Technical Advisor (ITA); Total cost 112.5k (150 days/\$750/day) during years 1-5; b) Full cost of an International Water modelling expert (Output 1.2) Total cost: \$21,000 (30 days/\$700/day) during years 1 and 2.
2	Contractual appointment of a team of local experts to provide professional, technical and scientific support to activities under Component 1 as follows: a) Watershed management expert (Output 1.1). Total cost: \$ 8000 (100 days/\$80/day) during year 1 and 2; b) 3 x Hydrologist (Output 1.1). Total cost: \$24,000 (100 days/\$80/day) during year 1 and 2; c) Forestry expert (Output 1.1). Total cost: \$ 4,800 (60 days/\$80/day) during year 1; d) 2x Environmental expert (Output 1.1.). Total cost: \$ 16,000 (100 days/ \$80/day) during year 1 and 2; e) 2x Environmental economist (Output 1.1.). Total cost: \$16,000 (100 days/\$80/day) during year 1 and 2; (f) 2x Ecologist/Fishery expert (Output 1.1). Total cost: \$ 16,000 (100 days/\$80/day) during year 1 and 2; g) 2x Water management/irrigation sector expert (Output 1.1). Total cost: \$16,000 (100 days/\$80/day) during year 1 and 2; h) Institutional development expert (Output 1.1). Total cost: \$3,200 (40 days/\$80/day) during year 2; i) Water engineer/monitoring expert (Output 1.1). Total cost: \$3,200 (40 days/\$80/day) during year 2; j) Legal expert (Output 1.1). Total cost: \$2,400 (30 days/\$80/day); k) 5x Irrigation and Crop water requirements expert (Output 1.2). Total cost: \$48,000 (120 days/\$80/day) during year 1 and 2 ;l) 3x Land Reclamation expert (Output 1.2). Total cost: \$12,000 (50 days/\$80/day) during year 1; m) LDN/land use expert (Output 1.2). Total cost: \$2,400 (30 days/\$80/day) during year 2; n) 3x Hydrologist/hydraulic engineer (Output 1.2). Total cost: \$12,000 (50 days/\$80/day) during years 1-3; o) 8x Irrigation sector/water management expert (Output 1.2). Total cost: \$44,800 (70 days/\$80/day) during years 2-5; p) Integrated watershed management specialist (Output 1.2). Total cost: \$5,600 (70 days/\$80/day) during year 2.
3	Pro-rata (25%) cost of contractual appointments to provide technical targeted support to activities (all components) of: a) 4x Field coordinators (all Outcomes/Components). Pro-rata (25%) costs: \$60,000 ; Total costs: \$240,000 (60 months/\$1000/month) over 5 years. b) 4x Task Leaders (all Outcomes/Components): Pro-rata costs (25%): \$72,000 . Total cost: \$288,000 (60 months/\$1200/month) over 5 years. c) 1/3 of the cost (\$ 18,000) of a GIS specialist (to support wetlands, lakes and riparian zones mapping (Output 1.1) spatial land use planning (Output 2.2) ; PA mapping (Output 3.1.1); PA zoning (Output 3.1.1/3.1.2). Total cost: \$ 54,000 split between components 1-3 (36months/\$1500/month) over the first three years; d) pro-rata charge of 50% of the Project manager costs (i.e. \$45,000) split among components 1-4. Total cost: \$11,250 (50% cost: \$45,000 /4= 11,250)
4	Includes: a) Travel costs (including accommodation, fuel, vehicle repair and maintenance costs, other vehicle costs, including car wash and incidental expenses) of national and international experts and government field staff in the collection of environmental information in support of Component 1 (Output 1.1 and Output 1.2). Total cost: \$51,600 (43 expertsx15 mission daysx\$80/day). b) Travel costs (including DSA and transport) of the international Water modelling expert (\$3,000) c) Travel costs (DSA, car hire, car subsidy, fuel, etc.) of the international Technical Advisor, Project Manager, Task Leader and Field Coordinator to support implementation of Component 1 (\$18,170).
5	(i) Includes pro-rata (25%) of a company to provide translation services (all Outputs). Total costs: \$6,000; (ii) cost of a consultancy company/experts for the development of SESA/ESIA, targeted screening and assessments as per SES requirements (Total cost 20,000 USD)
6	Includes Cell phone contracts (\$500); and pro-rata (25%) call costs of the Field Coordinator in supporting implementation of outputs under Component 1 and internet land phone postal and pouch charges (\$3,500). Total costs: \$4,000
7	Includes Procurement of software, database and networking requirements in support of Output 1.1 and Output 1.2 (\$9,000)
8	Includes the costs of the procurement of georeferenced digital aerial photography and satellite imagery, printing costs of the Integrated Water Management Plan in support of Output 1.1. and Output 1.2. Total costs: \$22,500
9	Includes: a) Pro-rata costs (\$20,000) of the awareness events (project awareness raising events on the integrated land-water management in the production zones and PAs surrounding geographies; water diplomacy conferences) b) Costs of integrated water management- related trainings (\$12,500) split between component 1 and Component 4;
Component 2	
10	a) 2/5 of the costs (\$45,000) of the International Technical Advisor (ITA); Total cost 112.5k (150 days/\$750/day) during years 1-5; b) Cost of the International LDN Expert (Output 2.1 and Output 2.2) Total cost: \$75,000 (100 days x \$750/day) during years 1 and 2; c) Full costs of an International Land Use Planning Expert (Output 2.2 and Output 2.1). Total cost: \$70,000 (100 days x \$700/day) during years 1, 2 and 3.

11	Contractual appointment of a team of local experts to provide professional, technical and scientific support to activities under Component 2 as follows: a) Land use planning/LDN Karakalpakstan (Output 2.1). Total cost: \$8,000 (100 days x \$80/day) during years 1 and 2; b) Soil expert (LDN) (Output 2.1). Total cost: \$8,000 (100 days x \$80/day) during years 1 and 2 c) Forestry expert (LDN) (Output 2.1). Total cost: \$8,000 (100 days x \$80/day) during years 1 and 2. d) 2x Pasture management expert (LDN) (Output 2.1). Total cost: \$16,000 (100 days x \$80/day) during years 1 and 2; e) Irrigation expert (Output 2.1). Total cost: \$ 4,000 (50 days x \$80/day) during years 1 and 2; f) Environmental economist (Output 2.1). Total cost: \$4,000 (50 days x \$80/day) during year 1 and 2; g) Institutional development (land governance) expert (Output 2.2). Total cost: \$4,000 (50 days x \$80/day) during year 1 and 2; h) 4x Land use planning expert (Output 2.2.) Total cost: \$32,000 (100 days x \$80/day) during year 1 and 2; i) 4x Pasture agronomist (Output 2.2, Output 2.3, Output 2.4). Total cost: \$48,000 (150 days x \$80/day) during years 1-5; j) 4x Agroforestry expert (Output 2.2, Output 2.3, Output 2.4, Output 2.5). Total cost: \$32,000 (100 days x \$80/day) during years 1-5; k) Botanist (Output 2.3). Total cost: \$8,000 (100 days x \$80/day) during years 1,3 and 5; l) 4x Forestry expert/Riparian engineering (Output 2.2 and Output 2.5). Total cost: \$32,000 (100 days x \$80/day) during years 1-5; m) Water management expert (Output 2.3 and Output 2.5). Total cost: \$8,000 (100 days x \$80) during years 1,3 and 5; n) Livestock expert (Output 2.3). Total cost: \$8,000 (100 days x \$80/day) during years 1,3 and 5; o) Environmental expert/PA expert (Output 2.2, Output 2.3, Output 2.5, Output 2.4). Total cost: \$8,000 (100 days x \$80/day) during years 1 and 2; p) Environmental economist expert (Output 2.3, Output 2.4, Output 2.5, Output 4.1). Total cost: \$8,000 (\$100 days x \$80/day) during years 1,3 and 5.
12	Pro-rata (25%) cost of contractual appointments to provide technical targeted support to activities (all components) of : a) 4x Field coordinators (all Outcomes/Components). Pro-rata (25%) costs: \$60,000 . Total costs: \$240,000 (60 months/\$1000/month) over 5 years.; b) 4x Task Leaders (all Outcomes/Components): Pro-rata costs (25%): \$72,000 . Total cost: \$288,000 (60 months/\$1200/month) over 5 years. c) 1/3 of the cost (\$ 18,000) of a GIS specialist (to support wetlands, lakes and riparian zones mapping (Output 1.1) spatial land use planning (Output 2.2); PA mapping (Output 3.1.1); PA zoning (Output 3.1.1/3.1.2)- the total cost of \$ 54,000 is split between components 1-3 (36months/\$1500/month) over the first three years); d) pro-rata charge of 50% of the Project manager costs (i.e. \$45,000) split among components 1-4 : \$11,250 (50% cost: \$45,000/4=\$11,250). e) Innovation challenge. Total cost 60,000 USD .
13	Includes: a) Travel costs (including accommodation, fuel, vehicle repair and maintenance costs, other vehicle costs, including car wash) of project experts and government field staff in collection of environmental information in support of Component 2 (all outputs). Total cost: \$28,800 (30 experts x 12 mission days x \$80/day). b) Travel cost (including DSA and transport) of the International LDN expert (Output 2.1 and 2.2). Total cost: \$9,300 (\$220 x 15 mission days + \$ 6000 cost of flights) during years 1 and 2. c) Travel cost (including DSA and transport) of the International Land use Expert (Output 2.2 and Output 2.1). Total costs \$ 9,300 (\$ 220 x 15 mission days + \$ 6,000 cost of flights). d) Travel costs (DSA, car hire, car subsidy, fuel, etc.) of the international Technical Advisor, Project Manager. Task Leader and Field Coordinator to support implementation of Component 2 (\$11,070).
14	Includes a) Pro-rata (25%) translation costs. Total cost: \$6,000; b); b) Costs related to the organization of the regional LDN workshop. Total cost: \$30,000, during year 3.
15	Includes costs of biological materials for seed/plants nurseries
16	Includes Cell phone contracts (\$500); and pro-rata (25%) call costs of the Field Coordinator in supporting implementation of outputs under Component 1 and internet land phone postal and pouch charges (\$3,500). Total costs: \$4,000
17	Includes costs related to the Procurement of software, database and networking requirements for Component 2
18	Includes costs related to the procurement of georeferenced digital aerial photography and satellite imagery, printing costs of Manual and Guidelines for Integrated Spatial and Land Use Planning; Printing costs of Manuals for LDN compatible pastures and forests management planning.
19	Includes a) Pro-rata costs (\$20,000) of the awareness events (awareness raising events on integrated land-water management in the production zones and PAs surrounding geographies; water diplomacy conferences; b) costs of LDN/SLM trainings (\$30,000) split between Component 2 and Component 4; c) Costs of local roundtable meetings on SLM (\$2,200) (Output 2.3; 2.4; 2.5).
Component 3	
20	a) 1/5 of the costs (\$22,500) of the International Technical Advisor (ITA), total cost 112.5k (150 days/\$750/day) during years 1-5.
21	Contractual appointment of a team of local experts to provide professional, technical, and scientific support to activities under Component 3 as follows: a) Land use planning expert/PAs (Output 3.1.1 and Output 3.2). Total cost: \$4,800 (60 days x \$80/day) during year 1 and 2; b) Conservation biologist/Botanist (Output 3.1.1 and Output 3.2.1). Total cost: \$4,800 (60 days x \$80/day) during years 1 and 2; c) Conservation biologist/Ornithologist (Output 3.1.1 and Output 3.2.1). Total cost: \$4,800 (60 days x \$80/day) during years 1 and 2; d) Conservation biologist/Wildlife specialist (Output 3.1.1 and Output 3.2.1). Total cost: \$ 4,800 (60 days x \$80/day) during years 1 and 2; e) Limnologist (Output 3.1.1). Total cost: \$ 4,800 (60 days x \$ 80/day) during years 1 and 2;

	<p>f) Hydrologist (Output 3.1.1). Total cost: \$2,400 (30 days x \$80/day) during year 1;</p> <p>g) Pasture agronomist (Output 3.1.1 and Output 3.2.1). Total cost: \$2,400 (30 days x \$80/day) during years 1-3;</p> <p>h) Forestry expert/Riparian engineering (Output 3.1.1, Output 3.1.2; Output 3.2.1). Total cost: \$2,400 (30 days x \$80/day) during years 1-3;</p> <p>i) Socio economic and community outreach expert (Output 3.1.1, Output 3.1.2, Output 3.2.2). Total cost: \$4,800 (60 days x \$ 80/day) during years 1-3;</p> <p>j) 4 x Biodiversity conservation expert/Protected areas (Output 3.1.2, Output 3.2.1, Output 3.2.2). Total cost: \$38,400 (120 days x \$80/day) during years 1-5;</p> <p>k) 2 x Senior PA management expert (Output 3.1.1). Total cost: \$4,800 (30 days x \$80/day) during years 3;</p> <p>l) Capacity Development for PAs Expert (Output 3.2.2- Training Needs Assessment). Total cost: \$2,400 (30 days x \$80/day) during year 1;</p> <p>m) 4 x Capacity Development for PAs Expert (Output 3.2.2- Training design and delivery). Total cost: \$ 19,200 (60 days x \$80/day) during years 1-5; o) 2x PAs Inspection and Patrolling Expert (Output 3.2.2). Total cost: \$4,800 (30 days x \$ 80/day) during years 1-5;</p> <p>n) Finance Strategist/ Natural Resources Economics Expert (Output 3.2.3). Total cost: \$ 8,000 (100 days x \$80/day) during years 1-3;</p> <p>o) Pasture agronomist (Micro-scheme support for livelihoods) (Output 3.2.3). Total cost: \$8,000 (100 days x \$80/day) during years 1-5;</p> <p>p) Agroforestry expert (Micro-scheme support for livelihoods) (Output 3.2.3). Total cost: \$8,000 (100 days x \$80/day) during years 1-5.</p>
22	<p>Pro-rata (25%) cost of contractual appointments to provide technical targeted support to activities (all components) of: a) 4x Field coordinators (all Outcomes/Components). Pro-rata (25%) costs: \$60,000. Total costs: \$240,000 (60 months/\$1000/month) over 5 years.; b) 4x Task Leaders (all Outcomes/Components): Pro-rata costs (25%): \$72,000. Total cost: \$288,000 (60 months/\$1200/month) over 5 years. c) 1/3 of the cost (\$ 18,000) of a GIS specialist (to support wetlands, lakes and riparian zones mapping (Output 1.1), spatial land use planning (Output 2.2); PA mapping (Output 3.1.1); PA zoning (Output 3.1.1/3.1.2)). Total cost: \$ 54,000 split between components 1-3 (36months/\$1500/month) over the first three years; d) pro-rata charge of 50% of the Project manager costs (i.e. \$45,000) split among components 1-4: \$11,250 (50% cost: \$45,000).</p>
23	<p>Includes: a) Travel costs (including accommodation, fuel, vehicle repair and maintenance costs, other vehicle costs, including car wash) of project experts and government field staff for the environmental information collection in support of Component 3 (Output 3.1.1, 3.1.2 and 3.2.1) training delivery (Output 3.2.2) and cross-cutting micro-scheme support for livelihoods implementation (Output 3.2.3). Total cost: \$36,000 (25 experts x 18 mission days x \$80/day); b) Travel costs (DSA, car hire, car subsidy, fuel, etc.) of the international Technical Advisor, Project Manager, Task Leader and Field Coordinator to support implementation of Component 3 (\$11,470)</p>
24	<p>Includes contractual costs of companies hired: a) for the construction of watch (monitoring) towers (Output 3.1.1 and Output 3.1.2). Total cost: \$90,000 (10 watch towersx9 PAs x\$1000/ tower) b) for the construction of a field monitoring station in Southern Ustyurt (Output 3.1.1). Total cost: \$50,000 c) rehabilitation/construction of wildlife watering infrastructure in Saygachy (Output 3.1.2). Total cost: \$80,000 (2 water wells x \$40,000) (d) pro-rata costs of translation services (\$6,000).</p>
25	<p>Includes costs of purchasing basic field and monitoring and inspection equipment to new PAs (Output 3.1.1) and existing PAs (Output 3.1.2) (Envisaged equipment for new PAs(3rd year): operational equipment GIS devices and field equipment (binoculars, camera traps, mobile communication devices; GPS navigators, power sources, generators, field uniforms and gear. Total cost: \$175,500; b) Identification boards for the new PAs (Output 3.1.1). Total cost: \$25,000; c) Monitoring and patrolling all-terrain (ATVs) (Output 3.1.1). Total cost \$40,000 (2x\$20,000); d) Monitoring and patrolling and field equipment for existing PAs (GIS devices and field equipment). Total cost: \$ 116,000; e) cost of procurement of two off-road vehicles for the largest two new PAs (South Ustyurt and Central Kyzylkum). Total costs: \$150,000 (2x \$75,000). Justification on the procurement for the vehicles is attached in Annex 27. Prior consultation took place with the GEF Secretariat on this issue.</p>
26	<p>Includes Cell phone contracts (\$500); and pro-rata (25%) call costs of the Field Coordinator in supporting implementation of outputs under Component 1 and internet land phone postal and pouch charges (\$3,500). Total costs: \$4,000</p>
27	<p>Includes costs related to the IT database infrastructure for new and existing PAs. Total cost: \$30,000 (for 8 PAs)</p>
28	<p>Includes costs related to the procurement of georeferenced digital aerial photography and satellite imagery, printing costs of the PA Management Plans</p>
29	<p>Includes a) Pro-rata (25%) costs (\$20,000) of the awareness events (awareness raising events on integrated land-water management in the production zones and PAs surrounding geographies; water diplomacy conferences); b) Costs of PAs trainings:\$24,500 (Output 3.2.2); c) costs of roundtable meetings with local communities (Output 3.1.1 and Output 3.1.2 Output 3.2.3). Total costs: \$ 4,800.</p>
30	<p>Includes total value of the grants delivered through the Micro-scheme support for farmers' livelihoods (Output 3.2.3), implemented through the MoU with the Council of Farmers</p>
Component 4	
31	<p>a) 1/5 of the costs (\$22,500) of the International Technical Advisor (ITA); Total cost 112.5k (150 days/\$750/day) during years 1 and 5; b) Costs of international experts to deliver presentations to events organized within the framework of Component 4. Total costs: \$16,100</p>
32	<p>Costs of the contractual appointments of local specialists in support of the outputs under Component 4: a) local expert to systematize project experience Total costs: \$10,000 (125 days x 80/day) during years 1-5; b) Communication specialist (Output 4.1.1/4.1.2). Total cost: \$16,000 (200 days x \$80/day) during years 1-5.</p>

33	Pro-rata (25%) cost of contractual appointments to provide technical targeted support to activities (all components) of: a) 4x Field coordinators (all Outcomes/Components). Pro-rata (25%) costs: \$60,000 . Total costs: \$240,000 (60 months/\$1000/month) over 5 years.; b) 4x Task Leaders (all Outcomes/Components): Pro-rata costs (25%): \$72,000 . Total cost: \$288,000 (60 months/\$1200/month) over 5 years; c) pro-rata charge of 50% of the Project manager costs (i.e. \$45,000) split among components 1-4.: \$11,250 (50% cost: \$45,000/4=11,250).
34	Includes: a) Travel costs (including accommodation, fuel, vehicle repair and maintenance costs, other vehicle costs, including car wash) of project experts, volunteers, media, NGO staff and government field staff in supporting the awareness and education events (Output 4.1.1, Output 4.1.2, Output 4.2.2). Total cost: \$40,000 (approx. 1000 participants x \$40) b) Travel costs (DSA, car subsidy, fuel, etc.) of the international Technical Advisor, Project Manager, Task Leader and Field Coordinator to support implementation of Component 4 (\$9,370)
35	Includes costs: a) contractual costs of a media company to implement the awareness campaign for decision makers in the water sector (Output 4.1.2.). Total cost: \$39,500 c) Pro-rata (25%) costs of a company offering translation services. Total cost: \$6,000 ; d) contractual costs of a capacity development company/NGO to design and deliver training modules on LDN/SLM sustainable water management; integrated water-land management; biodiversity friendly agricultural practices. Total costs: \$46,400 .
36	Includes Cell phone contracts (\$500); and pro-rata (25%) call costs of the Field Coordinator in supporting implementation of outputs under Component 1 and internet land phone postal and pouch charges (\$3,500). Total costs: \$4,000
37	Includes the costs of a) Production, design and printing of the analytical reports (Output 4.2.1) b) Production, design and print of the information materials and costs of subscriptions and participation under different KM platforms (e.g. WOCAT) (Output 4.1.1).
38	Includes: a) Pro-rata (25%) costs (\$20,000) awareness raising workshops, water diplomacy conferences; b) Partial costs of trainings on sustainable water management (\$20,000) (Output 4.1.1); c) Partial costs of trainings on LDN and Sustainable Land Management (\$20,000) (Output 4.1.1); d) Costs of farmer field schools (Total cost: \$4,168) (Output 4.1.1); e) Costs of local handicraft trainings (\$8,000) (Output 4.1.1);
39	Costs of office supplies in support of trainings, awareness activities across components
Component 5 - M&E	
40	Includes costs of international GEF evaluation experts (mid-term and terminal evaluations)
41	Includes costs of local M&E experts supporting GEF evaluations (mid-term and terminal evaluations)
42	Includes travel costs and DSA of M&E consultants (M&E).
43	Includes cost of project's inception workshop (\$15,000) and final conferences (\$15,000)
Project Management	
44	Includes a) Partial cost of a Project driver position. Total cost: \$45,000 ; b) Full cost of a Project Financial and Administrative Assistant. Total cost: \$43,735 (\$728.91x12monthsx5years); c) Procurement Assistant (Total cost: \$ 43,735 (60 months/\$ 728.91/month)
45	Direct Project Costs -Staff (funded by GEF)
UNDP TRAC - 04000	
46	Includes: Travel costs (within Tashkent) project management unit (UNDP TRAC)
47	Cost of a gender specialist to implement Gender Action Plan and advise the project management unit. Total cost: \$8,000 (100 days/\$80/day) over years 1-5. (UNDP TRAC)
48	Includes Internet, cell phone and landline contracts and call costs for project manager, project assistant and task leaders (UNDP TRAC)
49	Cost of procuring 6 desktops, 1 printer and 1data projector (UNDP TRAC)
50	Miscellaneous expenses including bank charges (UNDP TRAC)
51	Direct Project costs - GOE (funded by (UNDP TRAC))
52	Includes costs of professional services (audit) (UNDP TRAC)
53	(i) Includes 50% of the total Project manager salary. Total cost: \$45,000. (ii) UNDP Programme Financial assistant (\$98,000), (iii) Partial cost of Project driver with own car (\$70,000) (UNDP TRAC)

IX. LEGAL CONTEXT

237. This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of Uzbekistan and UNDP, signed on 10.06.1993. All references in the SBAA to “Executing Agency” shall be deemed to refer to “Implementing Partner.”

238. This project will be implemented by the **State Committee on Ecology and Environment** 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.

239. 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.

X. RISK MANAGEMENT

Implementing Partner is a Government Entity (NIM)

240. 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.

241. 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.

242. 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.

243. 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.

j. 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”).

k. 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.

244. 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:

- Prevent its employees, agents or any other persons engaged to perform any services under this Project Document, from engaging in SH or SEA;
- 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;
- 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;
- Refer victims/survivors of SH and SEA to safe and confidential victim assistance; and
- 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.

245. 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.

246. 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>).

247. 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.

248. 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.

249. 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.

250. 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.

251. 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.

252. 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.

253. 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.

254. 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.

255. 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.

256. *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.

257. 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.

258. 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.

259. 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.

XI. ANNEXES

Annex 1: GEF Budget Template

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USDeq.)	Responsible Entity
		Component 1	Component 2	Component 3	Component 4	Sub-Total	M&E	PMC		(Executing Entity receiving funds from the GEF Agency)[1]
		Sub-component 1.1	Sub-component 2.1	Sub-component 3.1	Sub-component 4.1					
Furniture/ Equipment	Includes Cell phone contracts (\$500); and pro-rata (25%) call costs of the Field Coordinator in supporting implementation of outputs under Component 1 and internet land phone postal and pouch charges (\$3,500). Total costs: \$4,000	4,000				4,000			4,000	NIM / IP
Furniture/ Equipment	Includes Procurement of software, database and networking requirements in support of Output 1.1 and Output 1.2 (\$9,000)	9,000				9,000			9,000	NIM / IP
Furniture/ Equipment	Includes costs of biological materials for seed/plants nurseries		44,700			44,700			44,700	NIM / IP
Furniture/ Equipment	Includes Cell phone contracts (\$500); and pro-rata (25%) call costs of the Field Coordinator in supporting implementation of outputs under Component 1 and internet land phone postal and pouch charges (\$3,500). Total costs: \$4,000		4,000			4,000			4,000	NIM / IP
Furniture/ Equipment	Includes costs related to the Procurement of software, database and networking requirements for Component 2		9,000			9,000			9,000	NIM / IP
Furniture/ Equipment	Includes Cell phone contracts (\$500); and pro-rata (25%) call costs of the Field Coordinator in supporting implementation of outputs under Component 1 and internet land phone postal and pouch charges (\$3,500). Total costs: \$4,000			4,000		4,000			4,000	NIM / IP
Furniture/ Equipment	Includes costs related to the IT database infrastructure for new and existing PAs. Total cost: \$30,000 (for 8 PAs)			30,000		30,000			30,000	NIM / IP

Furniture/ Equipment	Includes Cell phone contracts (\$500); and pro-rata (25%) call costs of the Field Coordinator in supporting implementation of outputs under Component 1 and internet land phone postal and pouch charges (\$3,500). Total costs: \$4,000				4,000	4,000			4,000	NIM / RP
Furniture/ Equipment - Vehicle	Includes costs of purchasing basic field and monitoring and inspection equipment to new PAs (Output 3.1.1) and existing PAs (Output 3.1.2) (Envisaged equipment for new PAs(3rd year): operational equipment GIS devices and field equipment (binoculars, camera traps, mobile communication devices; GPS navigators, power sources, generators, field uniforms and gear. Total cost: \$175,500; b) Identification boards for the new PAs (Output 3.1.1). Total cost: \$25,000; c) Monitoring and patrolling all-terrain (ATVs) (Output 3.1.1). Total cost \$40,000 (2x\$20,000); d) Monitoring and patrolling and field equipment for existing PAs (GIS devices and field equipment). Total cost: \$ 116,000; e) cost of procurement of two off-road vehicles for the largest two new PAs (South Ustyurt and Central Kyzylkum). Total costs: \$150,000 (2x \$75,000). Justification on the procurement for the vehicles is attached in Annex 27. Prior consultation took place with the GEF Secretariat on this issue.			506,500		506,500			506,500	NIM / IP
Grants	Includes total value of the grants delivered through the Micro-scheme support for farmers' livelihoods (Output 3.2.3), implemented through the MoU with the Council of Farmers			180,000		180,000			180,000	NIM / IP
Sub-contract to executing partner/ entity	Direct Project Costs - Staff (funded by GEF)					-		35,530	35,530	UNDP
Contractual Services - Individual	Pro-rata (25%) cost of contractual appointments to provide technical targeted support to activities (all components) of : a) 4x Field coordinators (all Outcomes/Components). Pro-rata (25%) costs: \$60,000. Total costs: \$240,000 (60 months/\$1000/month) over 5 years.; b) 4x Task Leaders (all Outcomes/Components): Pro-rata costs (25%): \$72,000. Total cost: \$288,000 (60 months/\$1200/month) over 5 years. c) 1/3 of the cost (\$ 18,000) of a GIS specialist (to support wetlands, lakes and riparian zones mapping (Output 1.1) spatial land use planning (Output 2.2); PA mapping (Output 3.1.1); PA zoning (Output 3.1.1/3.1.2)- the total cost of \$ 54,000 is split between components 1-3	161,250				161,250			161,250	NIM / IP

	(36months/\$1500/month) over the first three years); d) pro-rata charge of 50% of the Project manager costs (i.e. \$45,000) split among components 1-4 : \$11,250 (50% cost: \$45,000/4=11,250).e) Innovation challenge. Total cost 60,000 USD.										
Contractual Services – Individual	Pro-rata (25%) cost of contractual appointments to provide technical targeted support to activities (all components) of : a) 4x Field coordinators (all Outcomes/Components). Pro-rata (25%) costs: \$60,000. Total costs: \$240,000 (60 months/\$1000/month) over 5 years.; b) 4x Task Leaders (all Outcomes/Components): Pro-rata costs (25%): \$72,000. Total cost: \$288,000 (60 months/\$1200/month) over 5 years. c) 1/3 of the cost (\$ 18,000) of a GIS specialist (to support wetlands, lakes and riparian zones mapping (Output 1.1) spatial land use planning (Output 2.2); PA mapping (Output 3.1.1); PA zoning (Output 3.1.1/3.1.2)- the total cost of \$ 54,000 is split between components 1-3 (36months/\$1500/month) over the first three years); d) pro-rata charge of 50% of the Project manager costs (i.e. \$45,000) split among components 1-4 : \$11,250 (50% cost: \$45,000/4=11,250).e) Innovation challenge. Total cost 60,000 USD.		221,250					221,250		221,250	NIM / IP
Contractual Services – Individual	Pro-rata (25%) cost of contractual appointments to provide technical targeted support to activities (all components) of: a) 4x Field coordinators (all Outcomes/Components). Pro-rata (25%) costs: \$60,000. Total costs: \$240,000 (60 months/\$1000/month) over 5 years.; b) 4x Task Leaders (all Outcomes/Components): Pro-rata costs (25%): \$72,000. Total cost: \$288,000 (60 months/\$1200/month) over 5 years. c) 1/3 of the cost (\$ 18,000) of a GIS specialist (to support wetlands, lakes and riparian zones mapping (Output 1.1), spatial land use planning (Output 2.2); PA mapping (Output 3.1.1); PA zoning (Output 3.1.1/3.1.2)). Total cost: \$ 54,000 split between components 1-3 (36months/\$1500/month) over the first three years; d) pro-rata charge of 50% of the Project manager costs (i.e. \$45,000) split among components 1-4: \$11,250 (50% cost: \$45,000).			161,250				161,250		161,250	NIM / IP

Contractual Services Individual	Pro-rata (25%) cost of contractual appointments to provide technical targeted support to activities (all components) of: a) 4x Field coordinators (all Outcomes/Components). Pro-rata (25%) costs: \$60,000. Total costs: \$240,000 (60 months/\$1000/month) over 5 years.; b) 4x Task Leaders (all Outcomes/Components): Pro-rata costs (25%): \$72,000. Total cost: \$288,000 (60 months/\$1200/month) over 5 years; c) pro-rata charge of 50% of the Project manager costs (i.e. \$45,000) split among components 1-4: \$11,250 (50% cost: \$45,000/4=11,250).				143,250	143,250		143,250	NIM / RP
Contractual Services Individual	Includes a) Partial cost of a Project driver position. Total cost: \$45,000; b) Full cost of a Project Financial and Administrative Assistant. Total cost: \$43,735 (\$728.91x12monthsx5years); c) Procurement Assistant (Total cost: \$ 43,735 (60 months/\$ 728.91/month)					-	132,470	132,470	UNDP
Contractual Services Company	(i) Includes pro-rata (25%) of a company to provide translation services (all Outputs). Total costs: \$6,000; (ii) cost of a consultancy company/experts for the development of SESA/ESIA, targeted screening and assessments as per SES requirements (Total cost 20,000 USD)	26,000				26,000		26,000	NIM / IP
Contractual Services Company	Includes a) Pro-rata (25%) translation costs. Total cost: \$6,000; b) Costs related to the organization of the regional LDN workshop. Total cost: \$30,000, during year 3.		36,000			36,000		36,000	NIM / IP
Contractual Services Company	Includes contractual costs of companies hired: a) for the construction of watch (monitoring) towers (Output 3.1.1 and Output 3.1.2). Total cost: \$90,000 (10 watch towersx9 PAs x\$1000/ tower) b) for the construction of a field monitoring station in Southern Ustyurt (Output 3.1.1). Total cost: \$50,000 c) rehabilitation/construction of wildlife watering infrastructure in Saygachy (Output 3.1.2). Total cost: \$80,000 (2 water wells x \$40,000) (d) pro-rata costs of translation services (\$6,000).			226,000		226,000		226,000	NIM / IP

Contractual Services – Company	Includes costs: a) contractual costs of a media company to implement the awareness campaign for decision makers in the water sector (Output 4.1.2.).Total cost: \$39,500 c) Pro-rata (25%) costs of a company offering translation services. Total cost: \$6,000; d) contractual costs of a capacity development company/NGO to design and deliver training modules on LDN/SLM sustainable water management; integrated water-land management; biodiversity friendly agricultural practices. Total costs: \$46,400.				91,900	91,900			91,900	NIM / RP
International Consultants	a) 1/5 of the costs (\$22,500) of the International Technical Advisor (ITA); Total cost 112.5k (150 days/\$750/day) during years 1-5; b) Full cost of an International Water modelling expert (Output 1.2) Total cost: \$21,000 (30 days/\$700/day) during years 1 and 2.	43,500				43,500			43,500	NIM / IP
International Consultants	a) 2/5 of the costs (\$45,000) of the International Technical Advisor (ITA); Total cost 112.5k (150 days/\$750/day) during years 1-5; b) Cost of the International LDN Expert (Output 2.1 and Output 2.2) Total cost: \$75,000 (100 days x \$750/day) during years 1 and 2; c) Full costs of an International Land Use Planning Expert (Output 2.2 and Output 2.1). Total cost: \$70,000 (100 days x \$700/day) during years 1, 2 and 3.		190,000			190,000			190,000	NIM / IP
International Consultants	a) 1/5 of the costs (\$22,500) of the International Technical Advisor (ITA),total cost 112.5k (150 days/\$750/day) during years 1-5.			22,500		22,500			22,500	NIM / IP
International Consultants	a) 1/5 of the costs (\$22,500) of the International Technical Advisor (ITA); Total cost 112.5k (150 days/\$750/day) during years 1 and 5; b) Costs of international experts to deliver presentations to events organized within the framework of Component 4. Total costs: \$16,100				38,600	38,600			38,600	NIM / RP
International Consultants	Includes costs of international GEF evaluation experts (mid term and terminal evaluations)						42,000			NIM / IP

Local Consultants	Contractual appointment of a team of local experts to provide professional, technical and scientific support to activities under Component 1 as follows: a) Watershed management expert (Output 1.1). Total cost: \$ 8000 (100 days/\$80/day) during year 1 and 2; b) 3 x Hydrologist (Output 1.1). Total cost: \$24,000 (100 days/\$80/day) during year 1 and 2; c) Forestry expert (Output 1.1). Total cost: \$ 4,800 (60 days/\$80/day) during year 1; d) 2x Environmental expert (Output 1.1). Total cost: \$ 16,000 (100 days/\$80/day) during year 1 and 2; e) 2x Environmental economist (Output 1.1). Total cost: \$16,000 (100 days/\$80/day) during year 1 and 2; (f) 2x Ecologist/Fishery expert (Output 1.1). Total cost: \$ 16,000 (100 days/\$80/day) during year 1 and 2; g) 2x Water management/irrigation sector expert (Output 1.1). Total cost: \$16,000 (100 days/\$80/day) during year 1 and 2; h) Institutional development expert (Output 1.1). Total cost: \$3,200 (40 days/\$80/day) during year 2; i) Water engineer/monitoring expert (Output 1.1). Total cost: \$3,200 (40 days/\$80/day) during year 2; j) Legal expert (Output 1.1). Total cost: \$2,400 (30 days/\$80/day); k) 5x Irrigation and Crop water requirements expert (Output 1.2). Total cost: \$48,000 (120 days/\$80/day) during year 1 and 2 ;l) 3x Land Reclamation expert (Output 1.2). Total cost: \$12,000 (50 days/\$80/day) during year 1; m) LDN/land use expert (Output 1.2). Total cost: \$2,400 (30 days/\$80/day) during year 2; n) 3x Hydrologist/hydraulic engineer (Output 1.2). Total cost: \$12,000 (50 days/\$80/day) during years 1-3; o) 8x Irrigation sector/water management expert (Output 1.2). Total cost: \$44,800 (70 days/\$80/day) during years 2-5; p) Integrated watershed management specialist (Output 1.2). Total cost: \$5,600 (70 days/\$80/day) during year 2.	234,400				234,400			234,400	NIM / IP
Local Consultants	Contractual appointment of a team of local experts to provide professional, technical and scientific support to activities under Component 2 as follows: a) Land use planning/LDN Karakalpakstan (Output 2.1). Total cost: \$8,000 (100 days x \$80/day) during years 1 and 2; b) Soil expert (LDN) (Output 2.1).Total cost: \$8,000 (100 days x \$80/day) during years 1 and 2 c)Forestry expert (LDN) (Output 2.1).Total cost: \$8,000 (100 days x \$80/day) during years 1 and 2. d)2x Pasture management expert (LDN) (Output 2.1). Total cost: \$16,000 (100 days x\$80/day) during years 1 and 2; e)	236,000			236,000			236,000	NIM / IP	

	<p>Irrigation expert (Output 2.1). Total cost: \$ 4,000 (50 days x \$80/day)during years 1 and 2; f) Environmental economist (Output 2.1).Total cost:\$4,000 (50 days x \$80/day) during year 1 and 2; g) Institutional development (land governance) expert (Output 2.2).Total cost: \$4,000 (50 days x \$80/day) during year 1 and 2;h) 4x Land use planning expert (Output 2.2.)Total cost: \$32,000 (100 days x \$80/day) during year 1 and 2; i) 4x Pasture agronomist (Output 2.2, Output 2.3, Output 2.4). Total cost: \$48,000 (150 days x \$80/day) during years 1-5; j) 4x Agroforestry expert (Output 2.2, Output 2.3, Output 2.4, Output 2.5).Total cost: \$32,000 (100 days x \$80/day) during years 1-5;k) Botanist (Output 2.3). Total cost:\$ 8,000 (100 days x \$80/day) during years 1,3 and 5; l) 4x Forestry expert/Riparian engineering (Output 2.2 and Output 2.5).Total cost:\$ 32,000 (100 days x \$80/day) during years 1-5; m) Water management expert (Output 2.3 and Output 2.5).Total cost: \$8,000 (100 days x \$80) during years 1,3 and 5; n) Livestock expert (Output 2.3). Total cost: \$8,000 (100 days x \$80/day) during years 1,3 and 5; o) Environmental expert/PA expert (Output 2.2, Output 2.3, Output 2.5, Output 2.4). Total cost: \$8,000 (100 days x \$80/day) during years 1 and 2; p) Environmental economist expert (Output 2.3, Output 2.4, Output 2.5, Output 4.1). Total cost: \$8,000 (\$100 days x \$80/day) during years 1,3 and 5.</p>									
<p>Local Consultants</p>	<p>Contractual appointment of a team of local experts to provide professional, technical and scientific support to activities under Component 3 as follows: a) Land use planning expert/PAs (Output 3.1.1 and Output 3.2). Total cost: \$4,800 (60 days x \$80/day) during year 1 and 2; b) Conservation biologist/Botanist (Output 3.1.1 and Output 3.2.1). Total cost: \$4,800 (60 days x \$80/day) during years 1 and 2; c) Conservation biologist/Ornithologist (Output 3.1.1 and Output 3.2.1). Total cost: \$4,800 (60 days x \$80/day) during years 1 and 2; d) Conservation biologist/Wildlife specialist (Output 3.1.1 and Output 3.2.1). Total cost: \$ 4,800 (60 days x \$80/day) during years 1 and 2; e) Limnologist (Output 3.1.1). Total cost: \$ 4,800 (60 days x \$ 80/day) during years 1 and 2; f) Hydrologist (Output 3.1.1). Total cost: \$2,400 (30 days x \$80/day) during year 1; g) Pasture agronomist (Output 3.1.1 and Output</p>			<p>129,600</p>		<p>129,600</p>			<p>129,600</p>	<p>NIM / IP</p>

	<p>3.2.1). Total cost: \$2,400 (30 days x \$80/day) during years 1-3; h) Forestry expert/Riparian engineering (Output 3.1.1, Output 3.1.2; Output 3.2.1). Total cost: \$2,400 (30 days x \$80/day) during years 1-3; i) Socio economic and community outreach expert (Output 3.1.1, Output 3.1.2, Output 3.2.2). Total cost: \$4,800 (60 days x \$ 80/day) during years 1-3; j) 4 x Biodiversity conservation expert/Protected areas (Output 3.1.2, Output 3.2.1, Output 3.2.2). Total cost: \$38,400 (120 days x \$80/day) during years 1-5; k) 2 x Senior PA management expert (Output 3.1.1). Total cost: \$4,800 (30 days x \$80/day) during years 3; l) Capacity Development for PAs Expert (Output 3.2.2- Training Needs Assessment). Total cost: \$2,400 (30 days x \$80/day) during year 1; m) 4 x Capacity Development for PAs Expert (Output 3.2.2- Training design and delivery). Total cost: \$ 19,200 (60 days x \$80/day) during years 1-5; o) 2x PAs Inspection and Patrolling Expert (Output 3.2.2). Total cost: \$4,800 (30 days x \$ 80/day) during years 1-5; n) Finance Strategist/ Natural Resources Economics Expert (Output 3.2.3). Total cost: \$ 8,000 (100 days x \$80/day) during years 1-3; o) Pasture agronomist (Micro-scheme support for livelihoods) (Output 3.2.3). Total cost: \$8,000 (100 days x \$80/day) during years 1-5; p) Agroforestry expert (Micro-scheme support for livelihoods) (Output 3.2.3). Total cost: \$8,000 (100 days x \$80/day) during years 1-5.</p>									
Local Consultants	Costs of the contractual appointments of local specialists in support of the outputs under Component 4: a) local expert to systematize project experience Total costs: \$10,000 (125 days x 80/day) during years 1-5; b) Communication specialist (Output 4.1.1/4.1.2). Total cost: \$16,000 (200 days x \$80/day) during years 1-5.				26,000	26,000			26,000	NIM / RP
Local Consultants	Includes costs of local M&E experts supporting GEF evaluations (mid term and terminal evaluations)						3,600			NIM / IP
Trainings, Workshops, Meetings	Includes: a) Pro-rata costs (\$20,000) of the awareness events (project awareness raising events on the integrated land-water management in the production zones and PAs surrounding geographies; water diplomacy conferences) b) Costs of integrated water management- related trainings (\$12,500) split between component 1 and Component 4;	32,500				32,500			32,500	NIM / IP

Trainings, Workshops, Meetings	Includes a) Pro-rata costs (\$20,000) of the awareness events (awareness raising events on integrated land-water management in the production zones and PAs surrounding geographies; water diplomacy conferences; b) costs of LDN/SLM trainings (\$30,000) split between Component 2 and Component 4; c) Costs of local roundtable meetings on SLM (\$2,200) (Output 2.3; 2.4; 2.5).								52,200					52,200				52,200	NIM / IP	
Trainings, Workshops, Meetings	Includes a) Pro-rata (25%) costs (\$20,000) of the awareness events (awareness raising events on integrated land-water management in the production zones and PAs surrounding geographies; water diplomacy conferences); b) Costs of PAs trainings:\$24,500 (Output 3.2.2); c) costs of roundtable meetings with local communities (Output 3.1.1 and Output 3.1.2 Output 3.2.3). Total costs: \$ 4,800.													49,300				49,300	NIM / IP	
Trainings, Workshops, Meetings	Includes: a) Pro-rata (25%) costs (\$20,000) awareness raising workshops, water diplomacy conferences; b) Partial costs of trainings on sustainable water management (\$20,000) (Output 4.1.1); c) Partial costs of trainings on LDN and Sustainable Land Management (\$20,000) (Output 4.1.1); d) Costs of farmer field schools (Total cost:\$4,168) (Output 4.1.1); e) Costs of local handicraft trainings (\$8,000) (Output 4.1.1);																	72,168	72,168	NIM / RP
Trainings, Workshops, Meetings	Includes cost of project's inception workshop (\$15,000) and final conferences (\$15,000)																	30,000		NIM / IP
Travel	Includes: a) Travel costs (including accommodation, fuel, vehicle repair and maintenance costs, other vehicle costs, including car wash and incidental expenses) of national and international experts and government field staff in the collection of environmental information in support of Component 1 (Output 1.1 and Output 1.2). Total cost: \$51,600 (43 expertsx15 mission daysx\$80/day). b) Travel costs (including DSA and transport) of the international Water modelling expert (\$3,000) c) Travel costs (DSA, car hire, car subsidy, fuel, etc.) of the international Technical Advisor, Project Manager, Task Leader and Field Coordinator to support implementation of Component 1 (\$18,170).																	72,770	72,770	NIM / IP

Travel	Includes: a) Travel costs (including accommodation, fuel, vehicle repair and maintenance costs, other vehicle costs, including car wash) of project experts and government field staff in collection of environmental information in support of Component 2 (all outputs). Total cost: \$28,800 (30 experts x 12 mission days x \$80/day). b) Travel cost (including DSA and transport) of the International LDN expert (Output 2.1 and 2.2). Total cost: \$9,300 (\$220 x 15 mission days + \$ 6000 cost of flights) during years 1 and 2. c) Travel cost (including DSA and transport) of the International Land use Expert (Output 2.2 and Output 2.1).Total costs \$ 9,300 (\$ 220 x 15 mission days + \$ 6,000 cost of flights). d) Travel costs (DSA, car hire, car subsidy, fuel, etc.) of the international Technical Advisor, Project Manager. Task Leader and Field Coordinator to support implementation of Component 2 (\$11,070).									58,470					58,470				58,470	NIM / IP																						
Travel	Includes: a) Travel costs (including accommodation, fuel, vehicle repair and maintenance costs, other vehicle costs, including car wash) of project experts and government field staff for the environmental information collection in support of Component 3 (Output 3.1.1, 3.1.2 and 3.2.1) training delivery (Output 3.2.2) and cross-cutting micro-scheme support for livelihoods implementation (Output 3.2.3). Total cost: \$36,000 (25 experts x 18 mission days x \$80/day); b) Travel costs (DSA, car hire, car subsidy, fuel, etc.) of the international Technical Advisor, Project Manager, Task Leader and Field Coordinator to support implementation of Component 3 (\$11,470)														47,470				47,470	NIM / IP																						
Travel	Includes: a) Travel costs (including accommodation, fuel, vehicle repair and maintenance costs, other vehicle costs, including car wash) of project experts, volunteers, media, NGO staff and government field staff in supporting the awareness and education events (Output 4.1.1, Output 4.1.2, Output 4.2.2). Total cost: \$40,000 (approx. 1000 participants x \$40) b)Travel costs (DSA, car subsidy, fuel, etc.) of the international Technical Advisor, Project Manager, Task Leader and Field Coordinator to support implementation of Component 4 (\$9,370)																		49,370	49,370				49,370	NIM / RP																	
Travel	Includes travel costs and DSA of M&E consultants (M&E).																								6,120										NIM / IP							
Office Supplies	Costs of office supplies in support of trainings, awareness activities across components																																			12,500	12,500				12,500	NIM / RP

Other Operating Costs	Includes the costs of the procurement of georeferenced digital aerial photography and satellite imagery, printing costs of the Integrated Water Management Plan in support of Output 1.1. and Output 1.2. Total costs: \$22,500	22,500				22,500			22,500	NIM / IP
Other Operating Costs	Includes costs related to the procurement of georeferenced digital aerial photography and satellite imagery, printing costs of Manual and Guidelines for Integrated Spatial and Land Use Planning; Printing costs of Manuals for LDN compatible pastures and forests management planning.		19,000			19,000			19,000	NIM / IP
Other Operating Costs	Includes costs related to the procurement of georeferenced digital aerial photography and satellite imagery, printing costs of the PA Management Plans			11,000		11,000			11,000	NIM / IP
Other Operating Costs	Includes the costs of a) Production, design and printing of the analytical reports (Output 4.2.1) b) Production, design and print of the information materials and costs of subscriptions and participation under different KM platforms (e.g. WOCAT) (Output 4.1.1).				21,300	21,300			21,300	NIM / RP
Grand Total		605,920	870,620	1,367,620	459,088	3,303,248	81,720	168,000	3,552,968	

Annex 2: GEF Execution Support Letter



THE STATE COMMITTEE OF THE REPUBLIC OF UZBEKISTAN FOR ECOLOGY AND ENVIRONMENT PROTECTION

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“31” 03 2021

№ 01-01/P-220

Tashkent

To: Mr. Pradeep Kurukulasuriya,
UNDP-GEF Executive Coordinator
304 East 45th Street, 9th Floor
New York, NY 10017, USA

Subject: Letter of Support to request GEF Agency Execution for “*Conservation and sustainable management of lakes, wetlands, and riparian corridors as pillars of a resilient and land degradation neutral Aral basin landscape supporting sustainable livelihoods*” (GEF ID 00010356)

1. In capacity as GEF Operational and Political Focal Points for Uzbekistan, We are hereby request UNDP, the GEF implementing agency for the aforementioned project, to also carry out execution services for the above project/program, on an exceptional basis.
2. The limited execution services to be provided by UNDP, as GEF agency, to the implementing partner (IP), the State Committee for Ecology and Environment Protection (SCEEP), will be associated with UNDP Country Office programme and operation related general expenses for the capacity building as following:¹
 - (i) hiring two staff of the project management unit (PMU): Admin and Financial Assistant and Driver
 - (ii) providing capacity building trainings to PMU staff under SCEEP to successfully manage and implement the project and other similar projects in the future
 - (iii) support services for recruitment of international experts and payments
 - (iv) organization of Regional LDN Workshop
 - (v) organization of Innovation Challenge
 - (vi) implementation of Micro-scheme support for Farmers in cooperation with the Council of Farmers
3. Having the full responsibility and accountability for the effective use of GEF and UNDP resources and the delivery of outputs, as set forth in the project document, the execution services to be provided by the State Committee for Ecology and Environment Protection of the Republic of Uzbekistan, as Implementing Partner, are expected to include:

¹ UNDP will be tasked to improve the Implementing Partner (the State Committee for Ecology and Environment Protection) and Responsible Party (CAREC) capacities as a transition to full NIM arrangement. Please see paragraph 72 of the project document for details.

Template: GEF OFP Letter of Support for GEF Agency Execution

- 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;
 - Risk management as outlined in the project document;
 - Procurement of goods and services, including human resources;
 - Financial management, including overseeing financial expenditures against the project budgets;
 - Approving and signing the multiyear workplan;
 - Approving and signing the combined delivery report at the end of the year; and
 - Signing the financial report or the funding authorization and certificate of expenditures.
4. Execution activities, including those provided by UNDP, as GEF agency, will be described in detail in the GEF CEO Endorsement/Approval request and accompanying project/program documents, including the project/program budget.

Sincerely,



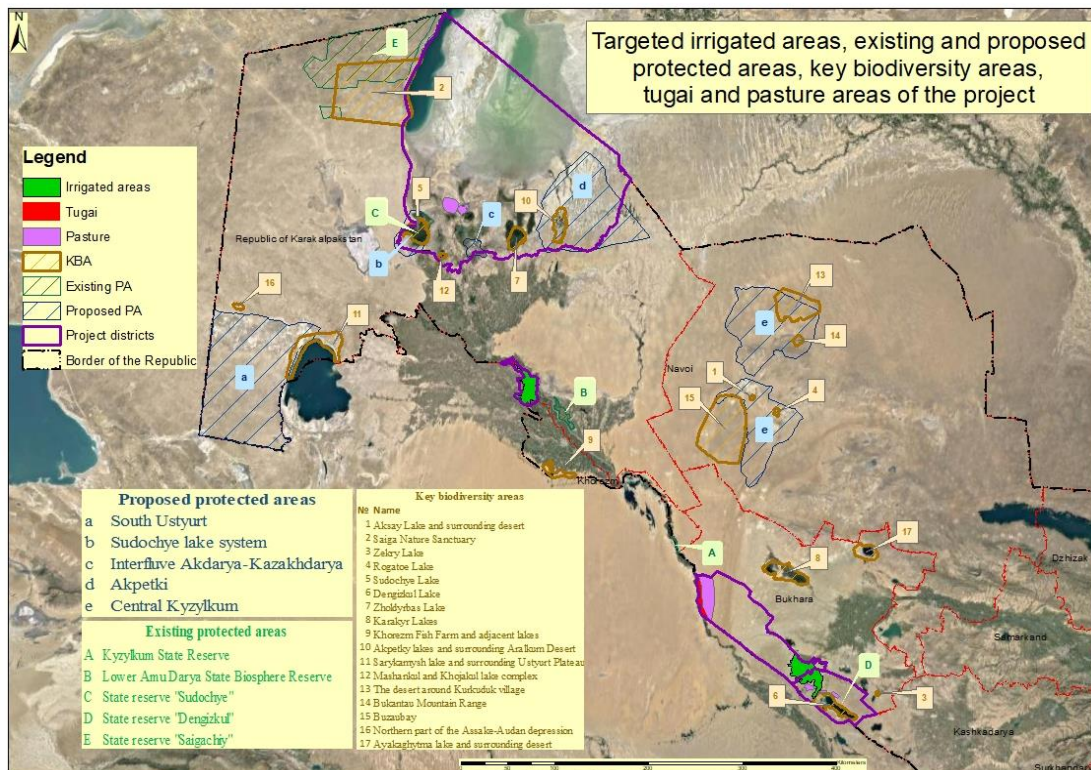
ALISHER MAKSUDOV
GEF Political Focal Point
Chairman,
the State Committee for Ecology
and Environmental Protection
Republic of Uzbekistan



Jakhongir Talipov
GEF Operational Focal Point
Head of International Cooperation Department,
the State Committee for Ecology
and Environmental Protection
Republic of Uzbekistan

Template: GEF OFP Letter of Support for GEF Agency Execution

Annex 3: Project map and geospatial coordinates of project sites



Project sites	Centroid		Extent minimum		Extent maximum	
	X	Y	X	Y	X	Y
Alat district	39° 12' 53.22"	64° 7' 51.73"	38° 55' 47.6"	63° 37' 15.24"	39° 28' 41.52"	64° 39' 49.06"
Karakul district	39° 53' 4.98"	63° 2' 56.23"	39° 18' 46.63"	62° 21' 32.54"	40° 23' 22.16"	64° 1' 48.68"
Amudarya district	42° 5' 14.27"	60° 4' 39.19"	41° 53' 38.16"	59° 44' 15"	42° 21' 14.07"	60° 15' 10.94"
Muynak district	44° 13' 35.14"	59° 30' 7.57"	43° 7' 20.65"	58° 10' 44.5"	45° 36' 18.68"	61° 16' 37.6"
Bukhara region	40° 8' 30.7"	63° 42' 59.4"	38° 55' 47.6"	62° 7' 19.33"	41° 25' 27.8"	65° 23' 0.54"
Khorezm region	41° 19' 50.5"	60° 56' 56.18"	40° 33' 42.35"	60° 3' 36.7"	41° 57' 13.84"	62° 25' 6.43"
Republic of Karakalpakstan	43° 25' 31.29"	58° 50' 8.98"	40° 57' 14.26"	55° 59' 47.89"	45° 36' 18.68"	62° 27' 45.57"

Annex 4: Multi-Year Work Plan

Task	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
Component 1 Coordinated water management as basis for LDN and conservation																				
Output 1.1. Revised norms of volume and timing of water supply through key hydrotechnical facilities developed and adopted																				
<i>a. Clarification of Water allocation for lakes and wetlands</i>																				
Comprehensive assessment the required water flow to maintain lakes, wetlands and riparian zones, accounting for climate change predicted water deficits																				
Analysis of hydroclimatic scenarios and water economic models, to optimize water allocation among multiple users																				
New Concept on Water Release to Lakes Wetlands and Riparian Zones (formally approved)																				
Inter-institutional agreement between the State Committee on Ecology and Ministry of Water Resources based on the new Concept for Water Releases to Lakes Wetlands and Riparian Zones (formally approved);																				
Legal and regulatory amendments drafted and submitted for approval																				
Output 1.2 Integrated Water Management Framework designed for LADAB landscape and 4 LDN-compatible Gender Sensitive Climate-Smart Integrated Water Management designed in 4 priority districts based on Output 1.1 and used as input to Output 2.1																				
<i>b. Irrigation norms and water use in agriculture</i>																				
Problem assessment: Governance and institutional analysis; Further analysis of: Water supply patterns and water use among different users; Agriculture sectors water needs; Current state of hydrotechnical facilities and irrigation network in the project targeted LADAB area and Amudarya river from Tyuyamuyun hydrotechnical facility to Mezdurechensk reservoir; Timing and Volumes of water release.																				
Identification of solutions: development of science-based recommendation for optimizing irrigation requirements and timing that accounts for climate																				

change at LADAB landscape level; Identification of SLM measures to be applied on 1,050,910 ha aligned with LDN response hierarchy and water saving measures.																				
Consensus among different agencies on the strategy and solutions proposed																				
Distribution of Institutional responsibilities, with clear action plan for the implementation of the agreed measures (solutions).																				
Development of an Investment Plan for Review and Optimization of Hydrotechnical Facilities, that serve the entire LADAB area																				
Drafting the Integrated Water Management Framework for LADAB landscape including Measures for Optimization of the hydrological monitoring network and support the provision of related data for sustainable water management and forecasting within the LADAB landscape																				
Formal approval of the Integrated Water Management Framework by the Ministry of Water Resources. Implementation starts.																				
Collection of relevant data and information on irrigation requirements related to the 4 districts (112,800 ha irrigated land).																				
Assessment of land degradation degrees and rates in the irrigated arable land																				
Drafting LDN compatible climate smart Integrated Irrigated Management Plans for 112,800 ha or irrigated arable land in 4 targeted districts																				
Approval and Implementation of the LDN compatible climate smart Integrated Irrigated Management Plans .																				
Component 2. Sustainable land management for Land Degradation Neutrality in the target landscape																				
Output 2.1. LDN progress assessment for Karakalpakstan completed; regional LDN targets confirmed, future actions developed and monitoring systems proposed; LDN action plan updated																				
Setting the Baseline: (i)Stakeholders engagement and (ii) Setting the Land Degradation Neutrality baseline (validation of the main LDN indicators)																				
Establishing a mechanism for neutrality: (i) Assessing land degradation; Identifying drivers of land degradation; (ii) Defining regional voluntary LDN targets .																				

LDN Planning and Implementation: (i) Mainstreaming LDN in Land Use Planning (ii) Measures to achieve LDN targets																				
Enable and monitor neutrality: (i) Facilitating actions towards land degradation neutrality (ii) Establishing a mechanism for Monitoring LDN progress (iii) Establishing a mechanism for Reporting LDN benefits ;Manual on LDN target setting at region level (drafted and approved)																				
South- South cooperation: Regional LDN workshop																				
Output 2.2 Integrated land-use spatial planning in four priority districts developed and under implementation in line with LDN principles.																				
Setting up district level inter-sectorial coordination mechanism: Integrated Spatial and Land Use Planning District Committee (ISLUPDC)																				
Development of a set of methodologies and criteria for the assessment of arable (irrigated and non-irrigated land), ecosystem services and rate and degree of land degradation aligned with LDN principles																				
Identification of land potential and spatial assignment of appropriate land use types and practices using participatory planning methods																				
Matching identified functional zones with economic priorities of the settlements																				
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																				
Development of an LDN compatible GIS based Land Use Concept ⁵² and its dissemination to relevant government bodies																				
Assessment of the alignment with LDN principles and lessons learned, summarized to inform the next cycle of land use planning at district and local levels in the targeted areas																				

⁵² The LDN compatible GIS based land use concept will include landscape (natural and cultural), soil, wildlife, biome maps. Each map will include categories of importance (high, medium, low value) along with sensitivity analysis. The land use concept will balance development priorities (economic and social) with conservation objectives in the area given the current status of ecosystems (habitat status, degree of degradation and sensitivity, available ecosystem services).

A monitoring and enforcement system for the spatial and land use planning will be put in place, providing land inspectors with protocols to monitor LDN compatible ISLUPs																				
Formal approval of the ISLUPs by district local authorities (khokimiyats). Local authorities implement the ISLUPs.																				
Output 2.3 Improved management of pastureland by local communities in 4 priority districts.																				
Inventory of pastures in the selected project sites and development of SLM measures according to the LDN approach prevent-reduce -restore																				
Organization of round table meetings and workshop with local communities, together with the local authorities and state forestry enterprises, Council of Farmers, on sensitization about LDN and SLM measures to be applied on rangelands/pastureland in order to prevent-reduce-restore degraded pastures; promote full participation in the development of pastures management plans and SLM measures and discussions around the monitored progress throughout implementation.																				
Mapping sensitive areas and clarification of regulations on pasture allocation and norms on carrying capacities for each pasture type, livestock and forage guidelines																				
Validating and fine tuning the proposed SLM measures (<i>Annex 24</i>), alignment with the integrated LDN compatible land use planning under Output 2.2.																				
Planning for distribution of livestock manure in select areas of the landscape to increase soil fertility; measures for weed control, pasture fertility, and seeding of degraded areas																				
Planning for annual harvesting of fodder crops																				
Design and plan for agroforestry measures																				
Creation of pastures plants nurseries; maintenance of nurseries.																				

Facilitation of alignment of the pasture management plans with the relevant 10-year management plans of forestry business units.																				
Design and implementation of Pasture Management Plans and monitoring scheme																				
Output 2.3 Innovative land restoration supported at most degraded areas																				
Validation of degraded areas selected and Implementation of innovative restoration measures as detailed in Annex 24.																				
Testing the potential of planting quinoa on degraded saline land in targeted districts of Karakalpakstan region, in partnership with the Centre for Biosaline Agriculture																				
Organization of Aral Sea Innovation Challenge																				
Selection of four innovative proposals to support further innovative programming and funding																				
Output 2.5 Community forest use in riparian corridors in four priority districts developed and under implementation																				
Organization of round table meetings with local communities, forestry enterprises and local authorities, to sensitize on the importance of forest ecosystems maintenance and discuss, agree on proposed measures, promote participatory development of forest management plans and discussions throughout the implementation period on monitored progress.																				
Development of forest management plans according to the methods identified and described under Annex 24, in partnership with the forestry enterprises																				
Approval and implementation of Forest Management Plans																				
Component 3 Conservation of globally significant Aral Sea Basin biodiversity																				
Output 3.3.1 Grounds established for protected area estate expansion securing the integrity of lake, wetland and riparian KBAs in Aral Sea region, through completion of feasibility studies, mapping and inventory, zoning regimes, management and financial planning.																				
Organize periodical awareness seminars/round table meetings with local communities living in the proximity of PAs, aimed at sensitizing on the negative impact on species and habitats, of the																				

harmful agricultural practices in and around protected areas and KBAs/IBAs																			
Organization of a comprehensive analysis of existing literature and identification of the information gaps; organization of targeted species surveys and socio-economic assessments of the areas; assessment of ecological and cultural values and ecotourism potential;																			
Delineation of the PAs zones, implemented in coordination with Output 3.2.1, establishing the limits of the acceptable use and development activities in the PAs, according to the proposed form of the legal protection; practical recommendations for biodiversity friendly activities in buffer and productive zones (including Sustainable Land Management measures, local handicraft workshops, ecotourism potential) will be developed and discussed with local communities																			
Stakeholders engagement																			
Formal endorsement: Securing formal endorsement through a formal decision from the Cabinet of Ministers, for the protected areas establishment																			
Development of management and financial plans of the new PAs (South Ustyurt and Central Kyzylkum) and development of legal standards of the natural resources use will be developed for Sudoche System of Lakes, and Mezdurechye Akdarya-Kazakhdarya and Akpetki Refuges,																			
Provide equipment and infrastructure support to the new PAs																			
Output 3.1.2 Improved management effectiveness of the existing PAs through PA regime compliance and enforcement, zoning, patrolling, research, species-focused conservation activities.																			
Assessments of management gaps and preliminary round table meeting with PAs staff																			
Strengthening research and monitoring capacities, technical support to improve species and habitats databases and monitoring protocols, installation of observation towers for stationary monitoring, and detection and rapid mitigation of potential fire hazards																			
Strengthening capacities of PAs rangers for patrolling and monitoring, providing binoculars,																			

camera traps, mobile communication devices; GPS navigators, field equipment (all PAs).																				
Implementation of specific species and key habitat centred conservation activities for each PA based on identified threats (in the existing PAs, as described in the main text)																				
Output 3.2.1 PA buffer zones and corridors identified, planned and mapped through integrated district land use management plans (coordinated with Output 2.2) and implemented with supporting regulations																				
Identification of biodiversity values, inventory of natural resources, inventory of species and habitats, land use types and socio-economic assessments (coordination with Output 2.2.)																				
Development of a zoning scheme, in which decisions are made about the multiple uses of the territory. The first phase will be usually to delineate the core zones, based on analysis of the optimum wildlife and habitat's ecological carrying capacity, in case of Southern Ustyurt and Central Kyzylkum and an improved conservation area for Kyzylkum State Reserve (IUCN I).																				
Establishment of a buffer zones for the new PAs for both Southern Ustyurt and Central Kyzylkum, where there will be fewer restrictions and guidelines will be provided to mainstream biodiversity friendly agricultural practices and ecotourism activities. The project will include the assessments of ecotourism potential among other ecological and socio-economic assessments.																				
Demarcation and delineation of the new zoning scheme on the ground																				
Output 3.2.2 Training and capacity strengthening of local environmental inspectorates and border security																				
Development of training modules based on Training Needs Assessment																				
Implementation of the training session for PAs and local environmental inspectorates and border security																				
Organization of round table meetings with local communities facilitate regular meetings between PA managers, ranger patrol staff, communities, inspectorates, border security, in and around the protected areas to analyse trends in monitoring and legal compliance and collaboratively address																				

ongoing threats, including related to cross-border migration of wildlife .																				
Output 3.2.3 Sustainable livelihoods supported in KBA buffer zones and corridors (e.g. fast-growing plantations as alternative to logging; cattle grazing rotation and use of distant pastures)																				
Forma agreement with the Council of Farmers, concluding the MoU for the implementation of activities under Output 3.2.3																				
Organization of the Task Force for the implementation of the Micro Scheme for livelihoods																				
Roundtable meetings with farmers and agricultural producers, awareness and sensitisation about LDN compatible SLM measures that will be promoted under the Micro-scheme																				
Organization of calls for proposals, selection of applications and further support to facilitate funding of the proposed SLM measures																				
Signing of voluntary SLM implementation agreements between the project/Council of Farmers and the producers and communities.																				
Organization of technical assistance and further support to be provided during the implementation of the SLM measures; monitoring of environmental and socio-economic benefits together with the beneficiaries.																				
Facilitating mainstreaming of SLM based subsidies in different policies and regulations																				
Development and signature of a MoU between the State Committee on Ecology and Environment protection and the State Committee on Veterinary Medicine and Livestock Development for issuance of subsidies for production of seeds for further sowing and planting of desert forage plants that restores land productivity, including pasture productivity																				
Component 4: International Cooperation and knowledge management																				
Output 4.1.1 Education and awareness raising campaigns for local resource users about key biodiversity values and sustainable land-use management regimes and regulations																				
Implementation of the awareness raising activities (as described in the main text)																				

Implementation of training activities (as described in the main text)																			
Undertake a systematization of the project’s experience starting at mid-point and knowledge sharing																			
Output 4.1.2 Awareness campaign for sustainable water use targeting decision-makers at local and regional levels																			
Design and implementation of a targeted awareness campaign for local and national water and agriculture management authorities (ministries, BISAs, ISAs, other agencies) emphasizing the importance of equitable water releases among multiple water uses and the importance of maintaining the integrity of the lakes, wetlands and riparian areas in the Amudarya Basin.																			
Output 4.2.1 The Government, scientific community and NGOs supported (e.g. through preparation of science-based technical papers, communications/negotiations with other Aral Sea basin countries, and international advice where relevant) in developing and negotiating decisions on the Aral Sea basin at the international level																			
Development of a series of analytical reports to strengthen the technical knowledge and capacity of the participating country representatives in different regional negotiations and meetings organized by the IFAs, showcasing the project’s demonstrated best practices.																			
Output 4.2.2 Donor/private sector/Government platform on replenishing the UN MPHSTF functions resulting in agreed new projects/activities focusing on integrated approaches towards water resource management and climate-smart land and resource use.																			
Support to participation of government officials into regional water management conferences.																			
Organization of water diplomacy seminars																			
Support to integrated water-land programming																			
Component 5 Monitoring and Evaluation																			
Output 5.1.1 Set of monitoring and evaluation activities																			

Monitored/evaluated project results and evaluative knowledge incorporated in the project adaptive management																					
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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	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
Project objective from the results framework	Indicator 1 (GEF 7 Core Indicator 1) Terrestrial protected areas created or under improved management for conservation and sustainable use (ha) (sum of Indicator 16 and Indicator 17 below)	Midterm: Flora and fauna inventories and habitat mapping completed End of Project 3,851,929 ha ⁵³	This indicator is based on corresponding global-level GEF 7 indicators. This project indicator is designed to align with and feed into this global level reporting. The Midterm target represents the minimum level of progress necessary at midterm for full achievement of the target at end of project (EoP). The End of Project target represents the Sum of terrestrial new PAs created Indicator 16 (3,094,600 ha) + the PAs with improved management effectiveness Indicator 17 (757,329 ha)	Baseline data according to NBSAP; data from the State Committee on Ecology and Nature Protection Project technical reports, METT scorecards validated by the project final evaluation.	Annually Reported in DO tab of the GEF PIR	Project manager IP/RP UNDP Country office	Successful completion of project activities for relevant project components, as verified by the MTR and TE.	Risks: Project team fails to secure political back-up for designation of new PAs; lack of political prioritization. Shifting government priorities due to COVID-19. Assumptions: Interest from the central government, private sectors and farmers in biodiversity conservation; No major negative impacts (e.g. COVID-19) on the availability of the state budget for the protection and management of new and existing PAs.
	Indicator 2 (GEF 7 Core Indicator 4.3) Area of landscapes under improved practices (hectares, excluding PAs) (sum	<i>Midterm:</i> Baseline assessment and methodologies developed.	This indicator is based on corresponding global-level GEF 7 indicator. This project indicator is designed to align with and feed into	Expert mapping according to the methodologies guided by LDN avoid/reduce/restore hierarchy Georeferenced data	Annually Reported in DO tab of the GEF PIR	Project manager IP/RP UNDP Country office	Field monitoring reports (based on methodologies established during the development of	Risks: Stakeholders are reluctant to adopt SLM measures and improved practices, due to the lack of a stronger enabling

⁵³ Sum of Indicator 16 (3,094,600 ha) + Indicator 17 (757,329 ha)

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	of Indicators 8,9,10 below)	<i>End of project:</i> 100,000 ha	this global level reporting. The Midterm target represents the minimum level of progress necessary at midterm for full achievement of the target at end of project (EoP). The impact indicator's end of project target is reflecting the envisaged 90,000 ha of pastures and approximately 10,000 ha of tugai/tauranga forests under sustainable management	Direct impact coverage reporting on Outcome 2 Local forestry enterprises official data Data reported to local authorities (khokims)			the sustainable management plans) and GIS supported information, project technical reports, METT scorecards validated by the project final evaluation.	framework and sufficient incentives Co-financing is not materialized Assumptions: Environmental/climate variability within normal range. Uptake of SLM practices promoted through integrated land use planning and LDN mandatory guidelines. Existing interest from local communities to participate in project activities and continue on sustainability path. A critical mass of understanding and awareness exists to compel local natural resource users to uptake demonstrated SLM measures. Government maintains financial commitments
	Indicator 3 (GEF 7 Core Indicator 11) Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment (#): # of <u>public sector employees</u> with	Midterm: Total: 20,130 (30% women) <i>End of project:</i> Total: 49,300	The indicators reflect : (i) number of public sector employees of key partner institutions benefiting from project activities (number of staff employed by Ministry of Water resources and affiliated	Annual project team analysis of number of people directly benefiting from the project activities, according to an assessment methodology developed at the project inception stage.	Annually Reported in DO tab of the GEF PIR	Project manager/ Task Leaders Field Coordinators IP/RP	Field monitoring reports, project technical reports, validated by the project final evaluation.	Risks: Large scale staff turn-over in participating institutions and agencies. Limited benefits for the producers who adopted environmentally

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	<p>improved capacity for integrated landscape management and sustainable agricultural practices (gender disaggregated)</p> <p># of <u>local resource users and agricultural producers</u> with improved awareness and technical knowledge on SLM and sustainable water use and improved sustainability of livelihoods (gender disaggregated)</p> <p># <u>Micro-scheme</u> beneficiaries</p> <p># of <u>PA staff</u> with enhanced individual capacity in biodiversity conservation and sustainable management, legal enforcement and patrolling (gender disaggregated).</p>	(14,780 women and 34,520 men)	<p>structures, and other line ministries, number of staff of the State Committee for Ecology and Environmental Protection, Committee on Veterinary Medicine and Livestock, Council of Farmers, benefiting from project activities through trainings, awareness, integrated land use planning, LDN target setting.</p> <p>(ii) number of local resource users participating in, or benefiting from, the project activities; the number represents a conservative 10% of the total local population employed in agriculture in the targeted districts.</p> <p>(iii) number of PA staff participating in the trainings</p>	<p>Project internal sources such as: list of training participants and KM product distribution lists will be analysed as data sources/ Project beneficiary institutions will be approached to contribute to data collection such as:</p> <p>(i) water, land, biodiversity resource managers (authorities) participating in trainings sessions and/or awareness raising events; (ii) local communities natural resource users participating in the project's events (iii) PA staff participating in project capacity building and knowledge product development; (iv) PAs management staff; researchers benefiting from PAs strengthened infrastructure; (v) research institutions, NGOs engaged in biodiversity assessments, pasture inventories, forestry management measures, agricultural policy developers; (vi) local community representatives directly benefiting from improved pastures and forests (estimated at approx. 9860 households; it was</p>		UNDP Country office		<p>friendly practices. Women participation is hindered by social and cultural preferences for women to maintain household.</p> <p>Assumptions: Local resource users and government officials of key project partners actively involved in project activities.</p>

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
				considered that each household include 5 people); (vii) participants/beneficiaries of the micro-grants scheme; Interviews, surveys and official activity reports; project reports				
Project Outcome 1	Indicator 4 Existence of formally approved institutional framework for integrated water management in Lower Amudarya and Aral basin (LADAB) landscape, operationalizing the revised, climate sensitive, norms, volumes and timing of water releases among multiple users in LADAB Landscape.	Midterm: -Multi-Stakeholder Task Force /Multi-Stakeholder Committee set up -Baseline and problem assessments developed -Revised irrigation norms - drafted, discussed with stakeholders -Inter-institutional agreements drafted and submitted for discussions/approval End of Project 1 Integrated Water Management Framework (IWMF) officially endorsed	This indicator is an outcome level indicator designed to measure progress on the project's success to improve inter-sectorial coordination to reconcile water allocation among multiple water users. The IWMF covers 1,050,910 ha irrigated arable land and 957,260 ha of lakes, wetlands and riparian ecosystems of Amudarya mid and lower reaches. It provides recommendations and management arrangements for the implementation of efficient water management measures in the irrigated areas in order to reduce water wastage. Furthermore, it provides recommendations for hydrotechnical facilities'	Project reporting for Outcome 1 verified by official records of the Ministry of Water Resources and Ministry of Agriculture.	Second year Reported in DO tab of the GEF PIR	Project manager/ Task Leader Component 1 and Field Coordinators IP/RP UNDP Country office	Project technical reports. Field monitoring. Validated by Midterm and final GEF evaluation project reports.	Risks: Project team and Implementing Partner fail to engage and obtain consensus among key project partners and water users. Integrated Water Management Framework not officially endorsed. Assumptions: Government has a keen interest to rationalize water use among different economic sectors and approve mandatory ecological flows to maintain ecological integrity of lakes, wetlands and riparian zone sin Amudarya delta.

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
			<p>optimization, in order to improve capacities to store and re-direct the water savings towards lakes and wetlands.</p> <p>The Midterm target represents the minimum level of progress necessary for the achievement of the EoP target</p>					
	<p>Indicator 5: Area of irrigated land (ha) under sustainable integrated water management planning in the targeted districts, resulting in: -1% reduced salinized land per year -10% reduced water losses -increase in soil productivity as measured by soil bonitet score</p>	<p>Midterm: Baseline assessments and methodologies developed Co-financing mobilized for the implementation of the Integrated Water use Plans</p> <p>End of Project 112,800 ha</p>	<p>The midterm target represents the minimum progress necessary for full achievement of the Output.</p> <p>The end of Project targets represents the PPG experts estimations regarding positive changes that could be attained through the implementation of the 4 LDN compatible, climate smart, Integrated Water Management Plans in the 4 priority districts.</p>	<p>Ministry of Water Resources land ameliorative expeditions data; Expert mapping according to LDN avoid/reduce/restore hierarchy GIS supported data in the selected agricultural areas.</p>	Annually Reported in DO tab of the GEF PIR	Project manager/ Task Leader Component 1 and Field Coordinators IP/RP UNDP Country office	Field monitoring (using the monitoring scheme embedded in these plans). Midterm and Final GEF evaluation project reports.	<p>Risks: Shift in Government priorities; the project fails to secure relevant authorities engagement and approval of the four Integrated Water management Plans in the four districts</p> <p>The necessary co-financing for the implementation of these plans may not materialize.</p> <p>Assumptions: Ministry of Water Resources and Ministry of Agriculture remain committed to the pledged co-financing</p> <p>Integrated Water Management Plans</p>

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
								<p>will be officially approved and implemented with Government financing</p> <p>Government has a keen interest to reform water sector, reduce water waste and land salinization (target 1% per year saline land surface reduction)</p>
	<p>Indicator 6: Existence of legal tools enforcing minimum ecological flows, accounting for climate change, to Amudarya basin lakes, wetlands and riparian zones</p>	<p>Midterm:</p> <p>Concept (Guidelines) on Water Release to Lakes, Wetlands and Riparian Zones</p> <p>Legal amendments drafted (based on the Concept)</p> <p>End of Project</p> <p>Legal amendments to Water Code and related legislation adopted, guaranteeing the minimum ecological flows to Amudarya lakes, wetlands and riparian zones adopted</p>	<p>The indicator is reflecting institutional and legal tools (Output 1.1.) to enable the sustainable ecological flow to Amudarya delta.</p>	<p>Official records of the Ministry of Water Resources.</p> <p>Official data obtained from the BISAs/ISAs in the targeted areas.</p>	<p>Annually Reported in DO tab of the GEF PIR</p>	<p>Project manager/ Task Leaders and Field Coordinators</p> <p>IP/RP</p> <p>UNDP Country office</p>	<p>Field monitoring. Midterm and Final GEF evaluation project reports.</p>	<p>Risks: Agriculture interests continue to dominate inter-sectorial water uses; climate change is affecting water availability; water allocation to lakes and wetlands is not prioritized by the water managers; legal amendments, tools and methodologies produced by the project, are not officially adopted and implemented.</p> <p>Assumptions: There is a stated and clear interest of the Government to reform water sector and ensure the guaranteed ecological flow to lower Amudarya delta.</p>

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	<p>Indicator 7 (KM): Level of information necessary for improved integrated water management considering the climate change impacts (e.g. revised water requirements in agriculture sector and correct estimation of ecological flows to maintain lakes, wetlands and riparian zones in LADAB landscape)</p>	<p>Midterm: Detailed methodology and approaches for updating water management information in support of an improved, equitable share among multiple water users (sectors) and establishing and ensuring the required ecological flow necessary to maintain lakes, wetlands and riparian zones in Amudarya delta</p> <p>End of Project</p> <p>(i) A new <i>Concept on Water Management and Release to Lakes, Wetlands and Riparian Zones</i> is shared with. and endorsed by, the Ministry of Water Resources by with water managers.</p> <p>(ii) Comprehensive inventory of water uses and water requirements in agriculture sector</p> <p>(iii) Plan of Investments for</p>	<p>The indicators represents the level of information and knowledge necessary to support policy/regulatory decisions to enable adequate water norms among multiple water users.</p>	<p>Official data from the Ministry of Water Resources.</p>	<p>Annually Reported in DO tab of the GEF PIR (year 2)</p>	<p>Project Manager, Task Leader Component 1 Field coordinators IP/RP UNDP Country office</p>	<p>Project reports; Successful completion of project activities for relevant project components, as verified by the MTR and TE.</p>	<p>Risks: The project may fail to adequately inform and/or engage the interested stakeholders.</p> <p>Assumptions: The project does not encounter critical risk that will derail activities; Relevant water management related data can be achieved cost-effectively at landscape scale; There is a stated and clear interest of the Government to facilitate consensus among multiple water users and reform water management sector to include guaranteed ecological flows to lower Amudarya delta.</p>

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		optimization of hydrotechnical facilities (iii) Researched water requirements for lakes, wetlands and riparian zones in Amudarya mid and lower reaches, is completed and accessible to end users and water managers in LADAB landscape						
Project Outcome 2	Indicator 8 (GEF Core Indicator 4.1): Area (hectares) of land under sustainable management regime, where degradation of pasture habitats is avoided.	Baseline established at inception stage. Midterm: Baseline methodologies, indicators and monitoring schemes developed; pastures inventories and assessments developed End of project: 40,000 pastures under sustainable management plans, where degradation is avoided	This indicator is based on corresponding global-level GEF 7 indicators. This project indicator is designed to align with and feed into project Indicator 2. The 40,000 ha pastures target represents the sum of the proposed: 3,500 pasture in Amudarya district; 31,500 ha pastures in Moynaq district; 5,000 pastures around Sudochye lakes (Moynaq) (as proposed under Annex 24/Table) These proposed locations will be validated based on the project supported	Project supported expert mapping according to LDN avoid/reduce/restore hierarchy. Forestry enterprises reports and monitored indicators Ministry of Agriculture official data	Annually Reported in DO tab of the GEF PIR	Project Manager, Task Leader Component 2 Field coordinators IP/RP UNDP Country office	Field verification reports (based on the agreed monitoring scheme embedded into the plans) validated by Project terminal evaluation report; Pastures and Forests management plans integrated with the 10 years forest plan of the State Forestry	Risks: The project may fail to engage the key partners and local communities in the implementation of SLM measures designed by the project, due to their lack of funding and interest. Assumptions: Environment/climate variability within normal range. Uptake of SLM practices and integrated land use planning is optimal; Existing interest from local communities to participate in project activities due to the demonstrated socio-economic benefits and understanding of the

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
			LDN/land use planning and assessments.					importance of resilient ecosystems.
	Indicator 9 (GEF Core Indicator 4.1): Area (hectares) of land under sustainable management regime, where degradation of tugai/tauranga forests habitats is avoided .	Baseline established at inception stage. Midterm: Baseline methodologies, indicators and monitoring schemes developed; assessments developed Expert mapping based on LDN avoid/reduce/restore hierarchy. End of project: 10,000 tugai/tauranga forest under sustainable regime, where degradation is avoided	This indicator is based on corresponding global-level GEF 7 indicators. This project indicator is designed to align with and feed into Project Indicator 2. The total area of forest is represented by the sum of proposed locations: 2000 ha of tugai in Alat; 3,000 tugai in Karakul; 4,000 tugai /tauranga in Amudarya and 1000 forest in Moynaq (around KBAs) districts (as per a preliminary estimation at PPG stage, captured under Annex 24). These proposed locations will be validated based on the project supported LDN/land use planning and assessments.	Project supported expert mapping according to LDN avoid/reduce/restore hierarchy. Official reports developed and submitted by the Forestry enterprises. Ministry of Agriculture official data.	Annually Reported in DO tab of the GEF PIR	Project Manager, Task Leader Component 2 Field coordinators IP/RP UNDP Country office	Field verification reports (based on the agreed monitoring scheme embedded into the plans) validated by Project terminal evaluation report; Pastures and Forests management plans integrated with the 10 years forest plan of the State Forestry	Risks: The project may fail to engage the key partners and local communities in the implementation of SLM measures designed by the project, due to their lack of funding and interest. Assumptions: Environmental/climate variability within normal range. Uptake of SLM practices and integrated land use planning is optimal; Existing interest from local communities to participate in project activities due to the demonstrated socio-economic benefits and understanding of the importance of resilient ecosystems.
	Indicator 10 (GEF7 Core Indicator 4.1): Area (hectares) of land where degradation of pastures is reduced.	Baseline established at inception stage. Midterm: Baseline methodologies established; pastures inventories, assessments of the	This indicator is based on corresponding global-level GEF 7 indicator. This project indicator is designed to align with and feed into Indicator 2. The target is 50,000 ha of pastures under	Project supported expert mapping according to LDN avoid/reduce/restore hierarchy. Forestry enterprises reports; Ministry of Agriculture official data	Annually Reported in DO tab of the GEF PIR	Project Manager, project Task Leader Component 2 Project Field Coordinators; Pastures/Forests specialists	Field verification reports based on the agreed monitoring scheme embedded into the plans validated by Project terminal evaluation	Risks: The project may fail to engage the key partners and local communities in the implementation of SLM measures designed by the project due to the lack of funding, interest,

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		<p>pasture degradation conducted.</p> <p>Expert mapping based on LDN avoid/reduce/restore hierarchy.</p> <p>End of project: 50,000 ha under sustainable management regime</p>	<p>sustainable management plans (Output 2.3) to reduce degradation and reflect soil productivity improvements, pasture productivity improvements, % of palatable species distribution and improvement in distant pasture use (as described in Annex 24/table aligned with LDN avoid/reduce/restore).</p> <p>The 50,000 ha pastures target represents the sum of: 20,000 ha pastures in Alat (around Dengizkhul lakes); 20,000 ha pastures in Karakul(near Khyzylkum Reserve); 10,000 ha pastures in Moynaq (around Saygachy Refuge). These proposed locations will be validated based on the project supported LDN/land use planning and assessments.</p>			UNDP Country office	report; State Forestry enterprises approved pastures and forests management plans.	and prioritization of these measures. Assumptions: Environmental/climate variability within normal range. Uptake of SLM practices and integrated land use planning is optimal; Existing interest and co-funding from local communities to participate in project activities.
	Indicator 11 (GEF7 Core Indicator 3.1): Area (ha) of degraded land restored for improved ecosystem services	Midterm: LDN hot spots identified, based on which the demonstration sites are validated	<i>This indicator is based on corresponding global-level GEF 7 indicator 3. This project indicator is designed to align with and feed into</i>	Official reports of the participating forestry enterprises. Ministry of Agriculture official reports.	Annually Reported in DO tab of the GEF PIR	Project Manager, project Task Leader Component 2 Project Field Coordinators;	Field observation reports (based on an agreed monitoring methodology designed before the restoration	Risks: The project may fail to engage the key partner and local communities in the implementation of SLM measures

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		<p>Baseline methodologies, monitoring indicators developed; assessments developed; Expert mapping based on LDN avoid/reduce/restoration hierarchy.</p> <p>End of project: 1,500 ha</p>	<p>this global level reporting.</p> <p>The target is 1,500 ha of land restored (Output 2.4). The location of these areas and proposed SLM measures are described in Annex 24.</p> <p>The target for this indicator represents the sum of: 200 ha in Alat (around Dengizkul lake); 100 ha degraded irrigated land in Alat, along Central Collector; 320 ha in Amudarya district, along the riverbank; 123 ha restored in Karakul bordering Khyzylkum Reserve; 407 ha in Amudarya district, near Lower Amudarya Biosphere Reserve; 350 in Moynaq district (as per Annex 24).</p> <p>These preliminarily proposed demonstration sites will be re-screened and validated by the LDN assessment and identification of <i>LDN hotspots</i> that will be prioritized for the restoration work. The monitoring of the restoration work will be</p>			<p>Forest specialist</p> <p>Land use specialist</p> <p>UNDP Country office</p>	<p>works) validated by Project terminal evaluation report; State Forestry enterprises approved pastures and forests management plans.</p>	<p>designed by the project.</p> <p>Assumptions: Existing interest from local communities to participate in project activities.</p> <p>Environmental/climate variability within normal range. Uptake of SLM practices and integrated land use planning is optimal;</p>

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
			based on an agreed methodology, designed before the works will start.					
	<u>Indicator 12</u> (GEF 7 Core indicators 6): GHG emissions mitigated (tCO2-eq)	Midterm: N/A End of project: 132,795	This indicator is based on corresponding global-level GEF 7 indicator. This project indicator is designed to align with and feed into this global level reporting. It is aimed at providing ex-ante estimates of the mitigation impact of restoration of 1500 ha of degraded land which under business as usual would have been abandoned, severely degraded. The estimation of C-balance is associated with the adoption of an alternative land management option/ restoration methods, as compared to a business as usual scenario. Anticipated year of counting is 2024 during a period of 15 years. (EX-ACT Tool/FAO has been developed using primarily IPCC 2006 Guidelines for National GHG Inventories (IPCC 2006)	Based on calculations from the EX-ACT tool.	Annually Reported in DO tab of the GEF PIR starting mid term	Project Manager Chef technical Advisor Land use experts	Project reports validated by final evaluation.	Risks: The project may fail to engage key partners in implementing the envisaged measures that will lead to the targeted reduction of GHG emissions. Assumptions: Project does not encounter critical risks that derail implementation

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	Indicator 13 : # of landscapes or jurisdictions with LDN voluntary targets	Midterm: 1 End of project: 1	The indicator focuses on the LDN subnational level in Karakalpakstan region (Output 2.1). The target is to have the LDN targets for Karakalpakstan identified, formally approved.	LDN National Action Plan UNCCD reporting	Annually Reported in DO tab of the GEF PIR starting mid term	Project Manager, Task Leader Component 2 Project Field Coordinators; LDN/Land use specialists UNDP CO	UNCCD reports; LDN National Monitoring and Action Plan reports on LDN subnational target in Karakalpakstan; ; Project reports validated by the final evaluation.	Risks: The project may fail to engage key partners in adopting and implementing the LDN targets. Assumptions: Interest from the local/regional and central government, private sectors and farmers in achieving land degradation neutrality through a combination of Sustainable Land Management (SLM) measures.
	Indicator 14 : (KM): Existence of mandatory methodologies on LDN and SLM measures applicable for practical improvements of land management and experience shared through farmer-to-farmer interaction	Midterm: Environmental data collected, methodologies elaborated and first drafts of different knowledge products are discussed with local and national authorities and other key project partners Available UNCCD-promoted innovative LDN compliant land use planning module based on the results of the GEO-LDN Technology Innovation	This indicator focuses on the level of knowledge generation necessary to achieve results at outcome level, with the recognition that one important barrier to the implementation of Land Degradation Neutrality is the lack of knowledge and understanding of the LDN concept and the approaches used in integrated land use planning and Sustainable Land Management (SLM)	Level of awareness and understanding increased as documented by project surveys, case studies, shared knowledge through different platforms and knowledge products	Annually Reported in DO tab of the GEF PIR starting mid term	Project Manager, Task Leader Component 2 Project Field Coordinators; LDN/Land use specialists UNDP CO KM consultant	Project reports validated by final evaluation	Risks: The project may fail to mobilize the necessary technical expertise to adequately generate, disseminate capture and codify knowledge within the project; Assumption: There is local and international experience and expertise available and leveraged through the project; There is interest to apply SLM among natural resource users; there is a keen interest among countries in the region and others with similar arid climatic conditions to

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		<p>Competition (Output 2.2).</p> <p>End of project:</p> <p>(i) Knowledge products generated within the Regional workshop on LDN subnational target setting, facilitated by UNCCD representatives</p> <p>(ii) Manual with Guidelines on Establishing LDN sub-national targets (showcasing Karakalpakstan experience)</p> <p>(iii) Manual with Guidelines on LDN compatible Integrated Land Use Planning</p> <p>(iv) Guidelines on pastures and forest management planning for natural resources users</p> <p>(v) LDN compatible GIS based land use concept</p> <p>(vi) 4 Innovative land restoration proposals</p> <p>(vii) Farmers field school</p>						<p>set sub-national targets and there is a desire to learn from more advanced countries and share best practices.</p>
	Indicator 15: Status of integrated LDN	Midterm:	This indicator is focusing on the integrated land	Local authorities official records of the existence of	Annually Reported in	Project Manager,	Project reports supported by	Risks: The project may fail to engage the local

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	compatible land use planning in LADAB landscape	<p>Integrated land use planning inter-sectorial district level committees set up and criteria and methodologies defined for the assessments of arable lands and ecosystem services and degrees of degradation.</p> <p>End of Project</p> <p>4 Integrated LDN compatible Spatial and Land use completed and under implementation for priority districts including identified PAs buffer zones and corridors for improved biodiversity integration.</p>	<p>use planning, as a mean to achieving land degradation neutrality and an improved land/water governance in PAs buffer zones and productive zones.</p> <p>The target is represented by: 4 Integrated LDN centred Land Use Planning in the targeted districts, officially approved (Output 2.2.)</p>	<p>4 Integrated Land Use plans in the targeted districts</p> <p>Project supported expert mapping according to LDN avoid/reduce/restore hierarchy.</p>	DO tab of the GEF PIR	<p>project Task Leader Component 2 Project Field Coordinators LDN/Land use specialists</p> <p>UNDP CO</p>	georeferenced data, validated by MTR and final evaluations.	<p>authorities in the land use planning; Local authorities may fail to understand the importance of the integrated land in planning in achieving land degradation neutrality and improving land governance; technical capacities and political will may be absent;</p> <p>Assumptions: Land degradation high among local/regional priorities; existing awareness and acknowledgement on the importance of integrated land use planning; exiting interest from the local/district level authorities (khokymiyats) to implement LDN centered integrated land use planning, that will become mandatory and will lead to achieving land degradation neutrality.</p>
Project Outcome 3	<p>Indicator 16 (GEF 7 Core Indicator 1.1):</p> <p>Terrestrial protected areas created for</p>	<p>Midterm:</p> <p>Flora and fauna inventories and critical habitat mapping completed</p>	This indicator is based on corresponding global-level GEF 7 indicator 1.1.	State Committee on Ecology and Environmental Protection official data	Annually Reported in DO tab of the GEF PIR	Project Manager, Task Leader Component 3,	Project reports validated by MTR and final evaluations.	<p>Risks: Large scale reshuffling of government priorities and funding, with PAs less prominent on political agenda.</p>

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	Conservation and sustainable use (ha)	Baseline assessment developed Consultations with the local communities under implementation End of Project 3,094,600	This project indicator is designed to align with and feed into the project Indicator 1. The target area (3,094,600 ha) is the sum of 5 new PAs created within the framework of this project: South Ustyurt National Park(II) 1,400,000 ha; Central Kyzylkum National Park(II) 1,000,000 ha; Sudochye Lakes System (IV) 84,700 ha; Akdarya-Kazakhdarya interfluve (IV) 22,200 ha; Akpetki (IV) 587,700 ha (Output 3.1.1)	National UNCBD Reports		; PAs specialists Field coordinators IP field offices UNDP CO		Possible COVID-19 impacts on the national budget. Assumptions: Interest from the central government, private sectors and farmers in biodiversity conservation; No major negative impacts (e.g. COVID-19) on the availability of the state budget for the protection and management of new and existing PAs.
	Indicator 17 (GEF 7 Core Indicator 1.2): Terrestrial protected areas under improved management for conservation and sustainable use (ha)	Midterm: Flora and fauna inventories and critical habitat mapping completed Baseline assessments developed and/or validated Improved zoning supported by georeferenced data Methodology and /or TORs for improved PAS infrastructure completed	This indicator is based on corresponding global-level GEF 7 indicator 1.2 This project indicator is designed to align with and feed into the Project Indicator 1. The target represents the sum of the existing PAs with improved biodiversity management capacities: Lower Amudarya State Biosphere Reserve 68,718 ha; Kyzylkum State reserve; 10,311 ha; Saygachy State	State Committee on Ecology and Environmental Protection official data National UNCBD Reports	Annually Reported in DO tab of the GEF PIR	Project Manager, Task Leader Component 3, ; PAs specialists Field coordinators IP field offices UNDP CO	Project reports validated by MTR and final evaluations.	Risks: Expected increase in the PAs management effectiveness is not achieved due to staff turnover and decreased investments into PAs infrastructure. Assumptions: Interest from the central government, private sectors and farmers in biodiversity conservation; No major negative impacts (e.g. COVID-19) on the availability

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		End of Project 757,329	Refuge 628,300 ha; Dengizkul State Refuge 50,000 ha (*Sudochoye State Refuge (50,000 ha) – although under the project’s scope, it is not added to the total target area, in order to avoid double counting and overlapping with the newly created PA: Sudochoye Lakes System 84,700 ha, which will encompass the old Sudochoye refuge) (Output 3.1.2)					of the state budget for the protection and management of new and existing PAs.
	Indicator 18: Change in the capacity of the management of key Protected Areas to implement effective biodiversity conservation and sustainable management measures	Mid-term targets: Lower Amu Darya State Biosphere Reserve (METT score: 70) Kyzylkum State Reserve (METT score: 60) Saigachy State Refuge (METT score: 71) Dengizkul State Refuge (METT score 34) State refuge Sudochoye (METT score 56) End of project targets:	The project activities aim to increase METT scores for METT questions 3, 5, 7b, 7c, 9, 14, 18, 20, 21, 21a, 21b, 21c, 24a, 24c, 25, 30	<i>Field observations; PAs official reports</i>	<i>Inception, Midterm, End of project</i>	Project Manager, Task Leader Component 3, ; PAs specialists PAs administrations Field coordinators IP field offices UNDP CO	Project reports and METT validated by MTR and final evaluations.	Risks: Expected increase in the PAs management effectiveness is not achieved due to staff turnover and decreased investments into PAs infrastructure. Assumptions: Interest from the central government, private sectors and farmers in biodiversity conservation; No major negative impacts (e.g. COVID-19) on the availability of the state budget for the protection and management of new and existing PAs.

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		<p>Lower Amu Darya State Biosphere Reserve (METT score: 76)</p> <p>Kyzylkum State Reserve (METT score:68)</p> <p>Saigachy State Refuge (METT score: 76)</p> <p>Dengizkul State Refuge (METT score 40)</p> <p>State refuge Sudochoye (METT score 65)</p>						
	<p>Indicator 19: Stable or positive change in the population of globally significant biodiversity indicator species at the new designated PAs (see Results Framework for listed species)</p>	<p>Baseline to be validated/completed at project inception</p> <p>Midterm: Non-deterioration of baseline status</p> <p>End of project targets: Increase relative to baseline (to be refined by the new PAs management units)</p> <p><u>South Ustyurt National Park</u></p> <p>-Ustyurt ram <i>Ovis vignei arkal</i> (100 individuals)</p>	<p>These species have been selected to serve as indicators based on several considerations: (i) they may be positively affected by the project interventions; (ii) are considered keystone species so that a positive change in species population reflects a positive change in the surrounding habitat; (iii) population can be reasonably monitored over multiple years, and (iv) there are global, or national Red List or endangered species or endemic or "iconic" for</p>	<p>Field observations inventories conducted at the beginning and at the end of the project);</p> <p>PAs official reports</p>	<p>Annually Reported in DO tab of the GEF PIR</p>	<p>Project Manager, Task Leader Component 3, ; PAs specialists</p> <p>PAs administration s</p> <p>Field coordinators</p> <p>IP field offices</p> <p>UNDP CO</p>	<p>Project reports validated by MTR and final evaluations.</p> <p>State Committee on Ecology and Environmental protection official records</p> <p>NBSAP</p> <p>National Communications to CBD</p>	<p>Risks: Major reshuffling of government priorities with regard to PAs system expansion (as listed in NBSAP);</p> <p>Assumptions: Project lifetime is sufficient to allow impacts to be generated and monitored; New threats do not emerge</p>

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		<p>-Goitered gazelle <i>Gazella subgutturosa</i> (600 individuals)</p> <p>-Kulan <i>Koulan equus hemionus</i> 50 individuals</p> <p><u>Central Kyzylkum National Park</u></p> <p>-Marbled duck <i>Marmaronetta angustirostris</i> 20 nesting pairs</p> <p>-White headed duck <i>Oxyura leucocephala</i> at 20 individuals</p> <p>-Central Asian tortoise <i>Testudo horsfieldii</i> at least 1 individual/hectare</p> <p><u>Sudochye system of lakes Refuge</u></p> <p>-Flamingo <i>Phoenicopterus roseus</i> at least 1 nesting colony</p> <p>-White eyed pochard <i>Aythya nyroca</i> 200 individuals</p> <p>-Saker falcon <i>Falco cherrug</i> occasional nesting (expected to increase to at least 1-2 nesting pairs)</p> <p><u>Akpetki</u></p>	<p>the country or the region.</p> <p>The project is aiming at minimizing threats to the newly designed PA, and if threats are minimized, population increases among indicator species can be documented within a few years, and therefore the project target is designed to set the project ambitions at contributing to an increase in the targeted indicator species populations.</p> <p>(Output 3.1.1)</p>					

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		<p>-Dalmatian pelican <i>Pelecanus crispus</i> 100 individuals;</p> <p>-Pin tailed sandgouse <i>Pterocles alchata</i> 1000 individuals (fly-bys)</p>						
	<p>Indicator 20: Stable or positive change in the population of globally significant biodiversity indicator species in the existent targeted PAs (see Results framework for listed species)</p>	<p>Midterm and End of Project Targets</p> <p>As indicated in the METT scorecards</p> <p><i>The targeted species are:</i></p> <p>-Bukhara deer <i>Cervus elaphus bactrianus</i> -Goiterred gazelle <i>Gazella subgutturosa</i> -Saker falcon <i>Falco cherrug</i> -Khiva pheasant <i>Phasianus colchicus chryzomelas</i> -Saiga antelope <i>Saiga tatarica</i> -Bustard-Hawbar <i>Chlamydotis undulata</i> -White headed duck <i>Oxyura leucocephala</i> -Pink flamingo <i>Phoenicopterus roseus</i> -White eyed pochard <i>Aythya nyroca</i></p>	<p>These species have been selected based on the same criteria (as above); the monitoring of these species will be on-going in the existing PAs even after the project's end. The targets have been identified and coordinated with the envisaged project activities.</p> <p>(Output 3.1.2)</p>	<p>Field observations (inventories conducted at the beginning and at the end of the project)</p> <p>PAs official reports</p>	<p>Annually Reported in DO tab of the GEF PIR</p> <p>METT validation at Inception, and updating at Midterm, End of project</p>	<p>Project Manager, Task Leader Component 3, ; PAs specialists</p> <p>PAS administration s</p> <p>Field coordinators</p> <p>IP field offices</p> <p>UNDP CO</p>	<p>Project experts reports validated by MTR and final evaluations.</p> <p>State Committee on Ecology and Environmental protection official records</p> <p>NBSAP</p> <p>National Reports to CBD</p>	<p>Risks: Major climate change impacts and water deficits negatively affects species and habitats; PAs not fully capacitated to implement species centered conservation activities;</p> <p>Assumptions: Project lifetime is sufficient to allow impacts/positive changes to be generated and monitored; New threats do not emerge</p>

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		-Saker falcon <i>Falco cherrug</i> -Dalmatian pelican <i>Pelecanus onocrotalus</i> -Mute swan <i>Cygnus olor</i>						
	<p>Indicator 21: (KM): Updated and accessible data on species and habitats, available for PAs managers and environmental inspectors, for improved biodiversity management.</p>	<p>Midterm: Environmental data collected and methodologies elaborated. Assessments of ecological and cultural values; economic assessment of ecotourism potential in new and existing PAs</p> <p>End of project target: (i) Data base on species and habitats related to existing PAs improved and accessible; (ii) New environmental information collected through inventories at new designated PAs available; (iii) PAs managers have a better access to environmental information and</p>	<p>Achievement of the outcome will entail the level of information implied in the target.</p> <p>This indicator is an enabler of Global Environmental benefits under Component 3: it is focusing on the knowledge generation as a mean to improve PAs management planning and species centred conservation activities.</p>	<p>State Committee on Ecology reports, data bases; project website; PAs management units reports.</p> <p>KM products publicly available</p> <p>NBSAP</p> <p>National Reports to CBD</p>	Annually Reported in DO tab of the GEF PIR	Project Manager, Task Leader Component 3, Field Coordinators; PAs specialists KM consultant	Project reports validated by MTR and final evaluations.	<p>Risks: The project may fail to leverage the necessary technical expertise needed to conduct comprehensive inventories.</p> <p>Assumptions: No major risk to project activities emerge. PAs inventories implemented as planned. Co-financing stable.</p>

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		improved based for research and knowledge management (iv) Local communities more aware of the importance of biodiversity management in buffer zones and ecological corridors						
	Indicator 22 (KM): Existence of capacity building for environmental inspectors and border officials, PAs staff in Biodiversity management trainings and community outreach events ;	Midterm target: 15 trainings (30% female participants) End of project target: 24 trainings and outreach events (30 % female participants)	The target (24 trainings) have been established at PPG stage based on the previous experience and knowledge generated within the State Committee on Ecology and Environmental protection. A training Needs Assessment will be conducted at the inception stage and the frequency of trainings as well as training topics will be further refined. (Output 3.2.2)	State Committee on Ecology and Environmental Protection reports; official records of the Training Centre of the State Committee	Annually Reported in DO tab of the GEF PIR	Project Manager, Task Leader Component 3, Field Coordinators, PAs specialists KM consultant	Monitoring via annual project reporting (PIRs) verification at MTR and final project evaluation; project reports; workshop proceedings;	Risks: Staff turnover; the project may fail to involve PAs staff, border inspectorate; Assumptions: No major risk to project activities emerge
	Indicator 23 : Number of Local communities supported agreements on PAs buffer zones and ecological corridors.	Midterm target: 1 agreement End of project target: 2 Agreements	The target is focusing on the successful involvement of local communities in conservation activities represented by agreements on ecological corridors for safe passage of the	State Committee on Ecology and Environment reports/ official data ; local interviews.	Annually Reported in DO tab of the GEF PIR	Project Manager, Task Leader Component 3, PAs specialists PAs administrations	Monitoring via annual project reporting (PIRs) verification at MTR and final project evaluation; project reports; workshop proceedings;	Risks: The project may fail to involve the local communities in the PAs management; hostilities between local communities and wildlife may occur or intensify. Assumptions: Local communities are

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
			<p>wildlife and expansion of their feeding base.</p> <p>The end of project targets reflect that local communities are informed and aware of the importance of biodiversity and critical habitats and support :</p> <p>i) agreements for suitable relocation of part of Bukhara deer population outside Lower Amudarya Reserve and</p> <p>ii) agreement on creation of an ecological corridor for Bukhara deer at the border with Kyzylkum State Reserve (Output 3.1.2 and 3.2.1)</p>			<p>Field coordinators</p> <p>IP field offices</p> <p>UNDP CO</p>		<p>aware of biodiversity values and are interested to support biodiversity friendly agricultural practices in buffer zones (e.g. Kyzylkum Reserve and Lower Amudarya Reserve) and are open to cooperation with PAs staff in creation of ecological corridors and or optimization of PAs zoning, aiming at safe wildlife relocation, and/or safety during migration intervals outside the PAs perimeters.</p>
	<p>Indicators 24:</p> <p>Farmers /producers' net income (differentiated by gender) from sustainable products (livestock, hay, seeds, dried fruits, medicinal plants, handicrafts) resulted from biodiversity friendly</p>	<p>Baseline will be assessed during the first year.</p> <p>Midterm target:</p> <p>At least 20% improvements in farmers livelihoods.</p> <p>End of project target:</p>	<p>This is a conservative percentage, as income generation from recommended SLM measures (<i>captured under Annex 24</i>) will likely provide more benefits: e.g. according to past donor-supported projects⁵⁴, application of rotational grazing alone</p>	<p>Council of Farmers official records; Surveys; bilateral interviews.</p> <p>UNCCD/WOCAT knowledge platform project contribution (recorded socio-economic benefits);</p>	<p>At the beginning, midterm and end of project.</p>	<p>Project Manager, Task Leaders (all), Field Coordinators Pastures/ Forests and PAs specialists (consultants); Project Economist</p>	<p>Monitoring via annual project reporting (PIRs) verification at MTR and final project evaluation; project reports; workshop proceedings;</p>	<p>Risks: Socio-economic benefits may fail to materialize, due to lack of appropriate SLM implementation.</p> <p>Assumptions: No major risk to project activities emerge; climate change within the predictable</p>

⁵⁴ Examples recorded in UNCCD/WOCAT database

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	agricultural practices in PA buffer and production zones	Beneficiaries of the project Micro-scheme support for farmers reporting at least 50% improvement in livelihoods derived from the SLM implemented SLM measures. 30% of beneficiaries are women.	can provide an estimated net profit of up to \$16 per sheep (after subtracting the costs per sheep of about \$8) ; similarly, planting drought resistant crops to enhance forage production and prevent erosion leads to a significant generation of profit estimated at \$243-\$341/ha from the third year onwards, made from selling of seeds and use of hay; whereas the income generation resulted from agroforestry measures as a land reclamation practice, varies e.g. maximal profit may be obtained from cultivation of Russian olive <i>Eleagnus angustifolia</i> due to annual selling of fruits (approx.. 3500 euro/ha within 7 years period); the firewood harvested from <i>Populus euphratica</i> can give a profit of 2300 euro/ha ⁵⁵ .			IP offices Council of Farmers local offices UNDP CO		parameters; co-financing stable.
	Indicator 25 (KM): Improvement of environmental	Baseline will be re-assessed at Inception stage.	This indicator is focused on assessing the general level of awareness and	Questionnaires/ surveys	Midterm and end of project questionnaire	IP/RP	Midterm and end of project Awareness	Risks:

⁵⁵ <http://www.fao.org/3/i7318en/i7318EN.pdf>

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
Project Outcome 4	<p>awareness of different stakeholders on biodiversity, integrated water management, integrated land management SLM and LDN and benefits for livelihoods:</p> <p>(i) General level of awareness on the problems associated with unsustainable water use, land degradation, loss of biodiversity</p> <p>(ii) Degree of Awareness of local communities on the importance and role of ecosystem services provided by wetlands and lakes to sustainable livelihoods</p> <p>(iii) Degree of Awareness of specialists and public sector employee on LDN</p> <p>(iv) Degree of awareness of local communities on importance of water saving technologies in irrigation sector</p>	<p>Midterm:</p> <p>Awareness raising activities under implementation</p> <p>End of Project</p> <p>10% Increase relative to baseline over a rolling 5-year period (to be validated at Inception)</p>	<p>understanding on the project thematic areas. An initial awareness questionnaire has been conducted at PPG stage to set the baseline.</p>		<p>s in order to assess an improvement in the level of awareness over a rolling 5 years basis, on LDN and SLM, wetland ecosystem services, biodiversity and integrated water management.</p>	<p>Project manager</p> <p>Task Leader Component 4, Field coordinators, KM consultant</p> <p>UNDP CO</p>	<p>questionnaires with results validated by MTR and final project evaluation.</p>	<p>The project may fail to reach out to the wide majority of local stakeholders and natural resource users.</p> <p>Assumptions:</p> <p>Effective dissemination of knowledge products regarding integrated water and land management, LDN/SLM ecological and economic benefits.</p>

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	(v)Degree of awareness and existence of sufficient technical knowledge on SLM at local community level							
	Indicator 26 (KM): Access to, and sharing of, environmental information by stakeholders.	<p>Midterm: Communication Plan and information objectives established and under implementation</p> <p>End of Project Information on the knowledge generated within the project is accessible to different groups of stakeholders through different channels:</p> <p>(i) Printed and translated materials and information, brochures, available handbooks for farmers; (ii) Analytical reports available to support Uzbekistan in negotiations under Integrated Fund for Ara Sea (IFAS) and</p>	<p>The indicator is focusing on the available and accessible information means relevant to the projects thematic areas and knowledge products capturing the project's generated knowledge and experience. The targets are representing several knowledge products and vectors for the dissemination of the project results. These indicators will be measures in coordination with the indicators reflected in the Communication Plan.</p>	<p>Press releases; blogs, articles, forums; official line ministries and agencies, State Committee communication platforms.</p> <p>Project KM products distribution list</p> <p>Project related web resources visitors</p> <p>List of participants of training and other KM events</p> <p>Communication Plan monitoring reports</p>	<p>Annually Reported in DO tab of the GEF PIR</p> <p>As reflected in the Communication Plan (indicators, objectives and timeline of the Communication Plan refined at inception stage)</p>	<p>IP/RP</p> <p>Project manager</p> <p>Task Leader Component 4, Field coordinators, KM consultant</p> <p>UNDP CO</p>	<p>Monitoring via PIRs (Annual project reports) validated by MTR and final evaluations; project reports; workshop proceedings; various questionnaires and interviews with stakeholders; contributions to WOCAT and CACILM II platforms;</p>	<p>Risks:</p> <p>The project may fail to respond adequately to the stakeholders' communication needs and communication objectives and reach out to remote communities.</p> <p>Assumptions:</p> <p>Effective dissemination of knowledge products and information.</p> <p>Continuous interest of stakeholders in project's activities.</p> <p>No major risks or national reshuffling of priorities affects the project implementation.</p>

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		the UN Multi-Partner Human Security Trust Fund for the Aral Sea Region in Uzbekistan (UN MPHSTF (iii) video documentary(iv) handouts and technical information disseminated during seminars(v) Project website and social media presence, blogs, moderated dialogues (vi) available UNCCD/ WOCAT platform; CACILM II platform.						
	Indicator 27 (KM): Number of awareness and training events raising awareness and strengthening technical knowledge level on integrated, biodiversity friendly land-water management and wetlands ecosystem services.	Midterm: Training modules designed Methodology developed 10 trainings implemented Communication Plan under implementation 10 awareness events implemented End of Project 30 trainings 4 Farmers Field Schools	The indicator is intended to be an outcome level indicator that tracks results under Outcome 4.1 . The targets have been set at a reasonable number, deemed achievable with available resources.	State Committee on Ecology and Environmental communication platforms.	Annually Reported in DO tab of the GEF PIR As reflected in the Communication Plan (indicators, objectives and timeline of the Communication Plan refined at inception stage)	IP/RP Project manager Task Leader Component 4, Field coordinators, KM consultant UNDP CO	Monitoring via PIRs (Annual project reports) validated by MTR and final evaluations; project reports; workshop proceedings;	Risks: Lack of interest to participate in the project planned training sessions; limited project outreach to the local natural resources living in more remote areas; Assumptions: Active participation of stakeholders in project activities; full support of Council of Farmers extension service and interest in training topics. No major obstacles to

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		20 awareness events South-South exchange 5 water diplomacy seminars						project implementation;
	Indicator 28 (KM): Number of regional water forums under IFAS, to which government counterparts and country representatives with strengthened technical capacities are participating	Midterm: 1 End of Project 3	The indicator is self-explanatory, it focuses on tracking the project support to participation in regional water forums under IFAs of government representatives.	Official information about workshop attendance; bilateral interviews; workshop proceedings.	Reported in DO tab of the GEF PIR.	IP/RP Project manager Task Leader Component 4, Field coordinators, KM consultant UNDP CO	Monitoring via PIRs (annual project reports), workshop proceedings; interviews with stakeholders.	Risks: N/A Assumptions: There is an active participation of the government into the project activities; there is no major obstacle to project implementation ; regional water negotiations forums are organized as planned.
M&E	Indicator 29 Monitoring and Evaluation reports Evaluative knowledge available to project partners	Midterm evaluation report Final evaluation report Annual PIRs	As per UNDP/GEF rules		Mid term End of project Annually	Project manager UNDP Programme Associate UNDP CO IP		Risks: The project may fail to engage relevant technical M&E expertise. Assumptions: No major obstacles or regional disagreements will be impeding project activities.
Cross-cutting	Consistency of project gender mainstreaming approach with project plans (Please see	Gender mainstreaming carried out during project	Target is based on the project's planned gender mainstreaming activities	<i>Project reports</i>	Reported in DO tab of the GEF PIR (annually)	Project manager Gender consultant	Monitoring via PIRs (annual project reports) validated by	Assumptions: All relevant stakeholders support or are in accordance with gender

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	Gender Action Plan and indicators)	<p>implementation, as indicated by:</p> <ul style="list-style-type: none"> a. Project Board and local stakeholder working groups set-up by the project have gender balance and/or include a gender expert; b. Policies, laws, and regulations amended 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 					MTR and final evaluation.	mainstreaming efforts undertaken by the project. There are no major risks to project activities.

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		f. Gender disaggregated indicators are reported on annually						

Annex 6: UNDP Social and Environmental Screening Procedure (SESP)

Project Information

Project Information	
1. Project Title	Conservation and sustainable management of lakes, wetlands, and riparian corridors as pillars of a resilient and land degradation neutral Aral basin landscape supporting sustainable livelihoods
2. Project Number (i.e. Atlas project ID, PIMS+)	PIMS ID 6465
3. Location (Global/Region/Country)	Uzbekistan
4. Project stage (Design or Implementation)	Design
5. Date	24 May 2021

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

QUESTION 1: How Does the Project Integrate the Programming Principles in Order to Strengthen Social and Environmental Sustainability?

Briefly describe in the space below how the project mainstreams the human rights-based approach

In line with UNDP's human-rights based approach, the project directly empowers right holders in the persons of farmers, owners of production lands, and communities so that they are the principal facilitators and decision makers for the mainstreaming of biodiversity conservation and sustainable land management (SLM) objectives in the production landscapes which they inhabit in the Lower Amudarya and Aral Sea Basin (LADAB) landscape that they inhabit. The project fully support's UNDP's commitment to a human-rights based approach, and supports the universal respect for, and observance of, human rights and fundamental freedoms for all, but particularly in the case of this project, for the people living in the LADAB landscape. The project does this broadly by supporting the sustainable use of natural resources, including access to and use of biological and land

resources necessary for the rural communities, including the rural poor, in the project's geographic scope. In addition, the project will ensure and support the human rights principles of participation, inclusion and non-discrimination.

The objective of the project is to enhance the resilience of the ecosystems and livelihoods in Lower Amudarya and Aral Sea Basin (LADAB) through land degradation neutrality (LDN) compatible integrated land-water management in the productive landscapes around PAs and KBAs/IBAs. The project design has been based on comprehensive stakeholder engagement and it is aligned with the LDN Checklist developed by the UNCCD (*please see Annex 28*), which embeds (*inter alia*) Criterion C, Promotion of inclusive governance, fully incorporated in the project design, through the integrated land use planning under Component 2, which is about ensuring that the rights of land users are respected while enabling them to derive maximum long-term benefits from use of ecosystem products and services.

The benefits produced by the Sustainable Land Management (SLM) interventions have the potential to reduce vulnerability to climate change, supporting multiple sources of food, energy and income thereby reducing community dependence on any single resource that might be affected by climate change. For example, various and innovative measures of restoring degraded land in targeted districts and supporting local communities' alternative income from vegetable gardens, fruit tree cultivation, rustic poultry, basketry etc will contribute to both food security and income diversity. Rehabilitation of water pumps and wells will ensure crop productivity which is especially important considering the past decade's increase incidence of drought. Furthermore, tree planting and ecosystem protection activities in forests and pastures contribute to increase soil productivity and decreased soil salinity, thus providing ecosystems goods and services that further mitigate the negative effects of climate change. Replication and scaling up embedded in project design will ensure multiple benefits occurring during and soon after the project will end, through the formed partnerships that leveraged the resources of multiple sectors such as private companies, research institutes, NGOs, other donors.

Finally, the mechanisms for integrated decision making that the project will promote under Outputs 1.1, 1.2, 2.1 and 2.2 and 3.2.2 and 3.2.3 will provide opportunities to reduce conflicts among resource users or overlaps in institutional mandates. General agreements on potential trade-offs promoted through an integrated and participatory manner, provide the platform for improved environmental and socio-economic benefits and for the participation of all the representatives of local communities, including of the poor and marginalised. In addition to agricultural activities, as it has been demonstrated, during participatory mechanisms, farmers use these opportunities to talk about water, climate, sanitation and social issues and by so doing they are able to engage local authorities as partners in different other proposals for a more inclusive rural development.

Briefly describe in the space below how the project is likely to improve gender equality and women's empowerment

The project incorporates gender considerations in the project design to ensure that there is equal opportunity for female participation and realization of benefits under the initiative as presented. Formalized structures and measures or legal amendments developed within the project framework will explicitly reflect the role of women in all tiers of biodiversity/resource management addressing specifically existing disparities faced by women and girls in terms of (amongst other things) access to economic participation and participation in decision making and trainings.

Within the national context, women generally share the responsibility for resources management and this is particularly visible at the household level. Owing to their active resource management roles, the project targets women participation in processes associated the conservation, sustainable use of water and forest resources and the delivery of ecosystem services. In this regard, water and soil resource management, the conservation and sustainable use of biodiversity, as well as sustainable production technologies and practices are expected to be achieved with their equal participation. The project integrated gender-based analysis into its designed and targeted the involvement of women, male and female youth within consultation processes meant to inform final project design.

There are numerous ways in which gender dimensions are relevant to the project. The project addresses multiple types of agricultural land use, all of which have important gender dimensions, as they relate directly to the sustainability of local livelihoods. The project will work to improve the sustainability of livestock grazing in and around KBAs. Although women are not typically directly involved in livestock grazing, they can be involved in decision-making about grazing plans, and in the processing of livestock products. The project will also work on improving land and water management in key areas. Women do typically have a more direct role and higher level of involvement in the production of food crops.

In further consideration to the roles and priorities of both men and women, the project has granted women greater opportunities to actively participate in governance bodies that will be set up by the project. The project promotes activities that close gaps resulting from gender equity issues since women in Uzbekistan generally, but more acutely in the rural communities, are more constrained by traditional gender roles and by the lack of access to financial resources and capacity-building to improve their livelihood.

The project will ensure that the activities relating to improved land and water management, such as local trainings and local decision-making mechanisms have appropriate and adequate gender representation. The project will also be working on the improvement management of protected areas and will also ensure the engagement of women in decision-making bodies related to protected areas, such as local management boards. The expected project provision of gender-disaggregated data, specifically, the distribution of project

benefits based on sex, will assist in the monitoring of the effectiveness of addressing equality gaps through project programming. The project has mainstreamed a gender responsive engagement in its strategy (*please see Annex 16 Gender Analysis and Action Plan*) and will put in place a grievance redress mechanism, as described in the Annex 14 (Stakeholders Engagement Plan) and in line with the UNDP SES protocols. Furthermore, the project's implemented measures will yield environment and socio economic benefits for more than 10,000 people of which approximately 30% will be women.

The safeguards to be applied to ensure that gender considerations continue to be a part of the project delivery approach include the contribution of gender and community outreach specialists, continued targeting and engagement of women stakeholder groups through the project participation plan, and the mandatory utilization of gender assessments to guide all significant project deliverables. It is the aim of the project is to achieve the categorization of "Gender Responsive" according to UNDP's gender results effectiveness scale (i.e., the results addressed differential needs of men or women and equitable distribution of benefits, resources, status and rights but do not address root causes of inequalities in their lives).

Briefly describe in the space below how the project mainstreams sustainability and resilience

The four components of the project have been designed within available GEF and co-financing framework to address the corresponding drivers of land, water degradation and biodiversity decline, which are directly linked to the diminishment and loss of lake, wetland and riparian biodiversity in LADAB landscape. The project will deliver Global Environmental Benefits using a participatory approach that ensures promotion of women, youth and vulnerable groups and equitable participation opportunities. This will result in the establishment of an integrated water management framework linking "water saving agriculture" on 1,050,910 ha of irrigated land, with the sustainable management of minimum and maximum ecological flows to 957,260 hectares of lakes, wetlands and riparian zones; participatory Sustainable Land Management (SLM) measures applied to 100,000 ha of pastureland and tugai and turanga forest ecosystem, halting habitat degradation. Extended PAs national system that will include 9 additional KBAs/IBAs, through the legal designation of 3,094,600 ha new PAs which, coupled with an expected 20% increase in the management effectiveness of the exiting PAs and a guaranteed minimum ecological flow, will cumulatively result into stabilized population of key indicator species and the ecological integrity of a chain of watered lands along the Aral coastline, crucial for preventing desertification and loss of biodiversity.

The environmental sustainability of the project results will be ensured by strengthened capacities in biodiversity management and LDN compatible SLM and increased awareness and understanding of local authorities, water managers, PAs staff, national government employees, state forestry enterprises, extension services, local natural resource users. In addition, the project will develop and institutionalize appropriate methodologies and tools, plans, guidelines and manuals to ensure sustainability of environmental results. For example, efficient water use on 112,800 ha of irrigated land will be achieved through four LDN compatible, climate sensitive Integrated Water Management Plans in the targeted districts (within Component 1). Furthermore, the project's supported Institutional Agreement (between State Committee on Ecology and Environmental Protection and the Ministry of Water Resources and the Ministry of Agriculture) as well as the legal amendments to the Water Code will ensure that 957,260 ha of natural ecosystems (lakes, wetlands, riparian zones) in Amudarya Basin will survive, by being supplied with the minimum ecological flows that will account for the predicted water deficits induced by climate change. Within Component 2, approximately 5,629,217 ha will be under LDN compatible, participatory integrated spatial and land use planning in 4 districts, setting up a new standard in land use planning in Uzbekistan. Approximately 100,000 ha of pastures and forests ecosystems will be put under improved management practices, through sustainable management plans embedded into the 10 years Strategy of the Forestry Enterprises, for sustainability of results. Under Component 3, approximately 9 additional KBAs/IBAs will be under increased protection through designation of new PAs covering 3,094,600 ha, ensuring stabilization of key indicators species; on the same time the exiting 757,329 ha of PAs will be under improved management through increased capacities of PAs manages, local inspectors and border officers. Expanded information management systems will provide reliable and real-time information to support decision-making.

Briefly describe in the space below how the project strengthens accountability to stakeholders

Through its various activities the project promotes accountability to project partners and stakeholders.

- a) The project deploys multi-stakeholders participatory mechanisms that increases accountability. Good examples of participatory mechanisms are demonstrated within the framework of Output 1.1 and 1.2 , through the inter-institutional coordination/stakeholders participation framework to improve efficiency of water use on irrigated lands and to provide for a more equitable distribution of water among multiple users (Output 1.1. and Output 1.2). Other project activities are leveraging stakeholders’ engagement for improved land governance and an accelerated transition towards land degradation neutrality in Karakalpakstan (Output 2.1). The project will further promote stakeholders’ accountability through participatory land use planning envisaged under Output 2.2., by facilitating active local community engagement including rural poor, actively promoting participation of women, youth and disadvantaged groups. Similarly, the project supported sustainable pasture management regimes (Output 2.3), designation of new PAs (Output 3.1.1), promoting community supported improved biodiversity friendly agricultural practices (Output 3.2.3) and training initiatives (Output 4.1.1) these are all major project milestones, implemented with embedded mechanisms for meaningful participation of all the stakeholders affected, particularly those at risk of being left behind.
- b) The project ensures that everybody has access to information, through transparency of all the programmatic interventions, provision of timely and accessible information regarding supported activities (primarily captured under Component 4) but also through partnerships such as with the Council of Farmers (Output 3.2.3) the project will strengthen its community outreach, including consultations on potential environmental and social risks and impacts and necessary management measures that will be implemented based on local consensus. Transparency and access to information will empower stakeholders to accelerate transition towards accountable decision making processes and more sustainable livelihoods.
- c) The project ensures that all the stakeholders can communicate their concerns and have access to rights-compatible complaints redress processes and mechanisms. In cases where there is a risk of economic displacement, such as the activities leading to designation of new PAs and ecological corridors, the Process Framework will be deployed, in an inclusive and participative manner, supported at local level by project experts and Local Advisory Committees including representatives of local self-governing bodies, CBOs and local NGOs in order to ensure inclusiveness The project will ensure that in all interactions with stakeholders (consultations, meetings, web sites) information is available on how to access complaints processes. The Project’s Stakeholder Engagement Plan will ensure the stakeholder’s are engaged and informed about all activities. In addition to the UNDP Stakeholder Response Mechanism⁵⁶ which is embedded in all UNDP projects, this project will set up the project-level Grievance Redress mechanism(GRM) and will designate the Project Board/Local Project Coordination Committees, included in the Project Management Arrangements (please see Section VI project Document) as the project-GRM to ensure first of all that all the people and communities are informed of project-level grievance entry points and avoid/minimize risks of retaliation and reprisal against people who may seek information on project activities or express concerns and/or access project level grievances.
- d) The project will monitor environment and social risk management measures through effective and where possible, participatory engagement of the stakeholders. In addition, the LDN monitoring mechanism in Karakalpakstan (Output 2.1.) will ensure adherence to the LDN principles (e.g. Human rights, Good governance, Participatory processes; Balanced economic, Social and Environmental Sustainability) further strengthening accountability.

Part B. Identifying and Managing Social and Environmental Risks

QUESTION 2: What are the Potential Social and Environmental Risks? Note: Complete SESP Attachment 1 before responding to Question 2.	QUESTION 3: What is the level of significance of the potential social and environmental risks? Note: Respond to Questions 4 and 5below before proceeding to Question 5			QUESTION 6: Describe the assessment and management measures for each risk rated Moderate, Substantial or High
Risk Description (broken down by event, cause, impact)	Impact and Likelihood (1-5)	Significance (Low, Moderate)	Comments (optional)	Description of assessment and management measures for risks rated as Moderate, Substantial or High

⁵⁶ <https://www.undp.org/accountability/audit/secu-srm>

		Substantial, High)		
<p>Risk 1. The Project supported Integrated Water Management Framework for LADAB landscape could result in limitation of access to water resources.</p> <p>SES Principle 2 Human Rights, P5 SESP principle 2 Human Rights, P6 SES Principle 3, Gender, P10 SES Principle 3, Gender, P11 Principle 5, Accountability, P13 Principle 5, Accountability, P14 Standard 5 Displacement; 5.2 Standard 5 Displacement; 5.4</p>	I=3 L=3	Moderate	<p>The project will support the development of an Integrated Water Management Framework IWMF (Output 1.2) based on assessments (partly done under Output 1.1.) covering the entire irrigated system in the Lower Amudarya and Aral Sea Basin (LADAB) landscape; The framework document will include recommendations for efficient water use in irrigation sector, application of cropland farming methods that do not deplete soil quality. The IWMF will further recommend the institutional arrangements for inter-sectorial coordination and consensus regarding water requirements and adequate water norms and timing of water releases through the hydrotechnical facilities.</p>	<p>As per the ESMF (Annex 30 project Document) the risks will be managed through the implementation of an appropriately scoped/scaled SESA approach (with a subsequent ESMF if considered necessary per the SESA for compliance with the SES and national law); implementation of the Stakeholders Engagement Plan, Process Framework, Gender Action Plan and Grievance Redress Mechanism.</p> <p>A SESA approach will be applied to the development of the Integrated Water Management Framework, such that potential social and environmental downstream impacts arising from the development of subsequent (i) guidelines on revised irrigation norms, (ii) Integrated Water Management Plans at district level, (iii) policy directions, are considered as an explicit part of plans/policy/guidelines development. This will encompass potential climate change risks on water allocation among multiple water users including potential safety risks water users and potential limitation on livelihoods.</p> <p>Under Output 1.2, the project will leverage the stakeholders engagement (as per the Stakeholder Engagement Plan) with the support from the Multi-Stakeholder Committee and representatives of line ministries, the International Fund for Saving the Aral Sea (IFAS), Amudarya Basin Water Organization (BWO), the relevant Basin Irrigation System Authorities (BISAs), Water Users Associations (WUAs).</p>
<p>Risk 2: The modification of land use and natural resources management regimes through the planning/implementation of sustainable land management (SLM) measures (e.g. forests, pastures, agricultural lands), envisaged to be implemented in support of long-term sustainability could affect access and use of resources by local communities, including the rural poor and women.</p>	I = 3 L =2	Moderate	<p>The project will develop several land, water and natural resources planning tools:</p> <p>- <u>4 Spatial Integrated Land Use Plans</u> in 4 priority districts Amudarya and Moynaq districts in Karakalpakstan and Alat and Karakul districts in Bukhara region, under Output 2.2.</p>	<p>The risks will be managed through the implementation of Targeted assessments (please see ESMF Annex 30 Project Document) for all these outputs.</p> <p>The project will develop these plans by applying targeted feasibility/risk assessments (including climate-related risks and vulnerabilities) and site-specific screening, in the targeted areas in order to</p>

<p>SES Principle 2 Human Rights, P5 SESP principle 2 Human Rights, P6 SES Principle 3, Gender, P10 SES Principle 3, Gender, P11 Principle 5, Accountability, P13 Principle 5, Accountability, P14 Standard 5 Displacement; 5.2 Standard 5 Displacement; 5.4</p>			<p>- <u>pasture management plans in the four targeted districts</u>, on 90,000 ha in the PA/KBA/IBAs production zones under Output 2.3.</p> <p>- Under Output 1.2 the project will develop 4 <u>Integrated Water Management Plans</u> in the priority districts (Output 1.2)</p> <p>- 4 <u>community-based forest management plans</u> in key areas of riparian corridors for approximately 10,000 ha tugai and turanga forests, and the implementation of proposed activities will be done in collaboration with the state forestry enterprises and local communities under Output 2.5.</p> <p>Most of these targeted areas and recommended SLM measures have been selected at PPG stage and locations described under Annex 24 of the Project Document. These sites will be validated based on expert mapping according to LDN prevent/reduce/restore hierarchy (Outputs 2.1 and 2.2).</p> <p>When modifying existing resource use and management regimes, there is always a possibility of some modification to the enjoyment of human rights or potential economic displacement of individuals living near or otherwise using territory included in the targeted area.</p> <p>The Risk is preventatively rated Moderate. UNDP has extensive experience working in Uzbekistan on similar types of interventions.</p>	<p>identify, prevent and mitigate potential economic displacement and negative impact on the critical habitats .</p> <p>Site specific measures will be designed as needed and included in these plans.</p> <p>The land use plans, pasture management plans as well as forest management plans, are expected to ensure livelihood improvements and environmental sustainability during and beyond the project period. If confirmed via site-specific screening during implementation (as per the ESMF), then the risk of economic displacement will be managed by integrating all elements of a Livelihood Action Plan into the respective plan for the given site.</p> <p>The LDN Principles will be applied to all these plans: land use, water use and pastures/forests use plans. The adherence to these principles and the screening against the LDN Checklist (Annex 28) , among which Criterion C “Promotion of Inclusive Governance”, will provide for mitigation of potential economic displacement.</p> <p>With respect to gender, a Gender Analysis has been undertaken (as required), and a Gender Action Plan developed. The project will hire a gender expert that will supervise the implementation of the Gender Action Plan</p> <p>Part of the Stakeholders Engagement Plan a project-level Grievance and Redress Mechanism (GRM) will be established and published so that all stakeholders, including remote communities are aware of its existence.</p> <p>The Project Manager and Local Field Coordinators will be responsible for documenting all grievances and ensuring they are addressed in a timely manner.</p> <p>Throughout the implementation, the project will continue to be working closely with all stakeholders to ensure that they are adequately consulted and their</p>
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				considerations integrated in the modification of resource-use regimes.
<p>Risk 3: Project developed plans, once implemented, may have a negative impact on the use of natural resources and/or the critical biodiversity habitats and species.</p> <p>SES Standard 1 Biodiversity and NRM, 1.1 SES Standard 1 Biodiversity and NRM, 1.2 SES Standard 1 Biodiversity and NRM, 1.3 SES Standard 1 Biodiversity and NRM, 1.6 SES Standard 1 Biodiversity and NRM, 1.7 SES Standard 1 Biodiversity and NRM 1.9 SES Standard 1 Biodiversity and NRM 1.10 SES Standard 1; 1.11 SES Standard 8; 8.2; 8.5; 8.6 Standard 2; 2.3 Standard 3; 3.6 SES Standard 8 Pollution Prevention and Resource Efficiency 8.2</p>	I=3 L=3	Moderate	<p>The project's work under Output 1.2. will result in approximately 112,180 ha of irrigated land under sustainable water management; Under Output 2.3 the project is using GEF resources to develop sustainable management plans for 90,000 ha of pastures; Under Output 2.5 the project will plan the sustainable management of 10,000 tugai and Tauranga forests.</p> <p>It is expected that these plans will be funded and implemented by the government.</p> <p>Under Output 3.2.3 some of the SLM demonstration activities contained in these plans will be implemented through micro-grants to local farmers.</p> <p>The risks considered are related to potential inadequate implementation of water and SLM measures e.g. although the water management planning will indicate the technology to be used and will recommend SLM practices (such as crop rotation; biodrainage; agroforestry measures) in order to reduce water wastage and improved resource efficiency, there is the risk that these measures will lead to increase of natural resources (e.g. choice of water irrigation technology would lead to increase water consumption) ; another example would be the inadequate planning for tugai/tauranga forest regeneration that may harm surrounding nesting/feeding areas of rare or endangered species.</p> <p>The pasture management plans developed under Output 2.3 may</p>	<p>The risks will be managed through the Site-specific screening (as envisaged by the SES measures included in these plans) (please see ESMF Annex 30 Project Document) for all these outputs.</p> <p>The pastures and forests and land use management plans include the management measures that have been identified via the targeted assessments at the selected sites level during the development phase of these plans.</p> <p>Now, during the implementation phase of the plans, the targeted sites will be individually screened with the SESP and based on the results, appropriate site-level assessment (potential ESIA) will be conducted, in order to identify, prevent and mitigate potential negative impacts on the critical habitats . These assessments, would not result in the ESMP because the Pastures/Forests and Land Use plans would already encompass the necessary mitigation measures and would act as ESMPs.</p> <p>Competitive low-value grants will be issued to local entrepreneurs and small and midsize farmers. A screening mechanism will be built into selection process to ensure due diligence is applied for private sector partnership and businesses being supported by the project (Output 3.2.3).</p> <p>The project's deployment of qualified specialists (hydrologists, pasture agronomists; conservation biologists engineers, safeguards specialists/company etc.) will ensure that (starting with the design/development phase) these plans will encompass best practices and guidelines and specifications for the most efficient irrigation technology and scientifically supported SLM measures that pose no harm to environment and that cost effective, resource efficient and climate sensitive.</p>

			inadvertently plan for seeding of invasive species.	UNDP has accumulated solid experience in successful demonstration and promotion of biodiversity friendly land and water management and climate smart irrigation technology, which will be used through this project.
<p>Risk 4: Expansion of PAs system could lead to potential limitations or restrictions of the use of natural resources. Strengthening management of existing PAs, such as improved PAs zoning, strengthening the sanctuaries' protection regimes, and/or creation of ecological corridors could further restrict access to and use of biodiversity resources by local communities, affecting livelihoods.</p> <p>SES Principle 2 Human Rights, P5 SESP Principle 2 Human Rights, P6 SES Principle 3, Gender, P10 SES Principle 3, Gender, P11 Principle 5, Accountability, P13 Principle 5, Accountability, P14 Standard 5 Displacement; 5.2 Standard 5 Displacement; 5.4</p>	I=3 L=3	Moderate	<p>The project <u>will establish five (5) new protected areas (Output 3.1.1)</u> with a total area of 3,094,600 ha: the National Park "South Ustyurt", the National Park "Central Kyzylkum", the Reserve "Sudoche Lakes System State Wildlife Sanctuary"(on the basis of the existing refuge with an area of 50,000 ha), the refuges "Mejdurechye of Akdarya-Kazakhdarya" and "Akpetki". Local communities in the project area could face economic displacement due to the expansion of the PAs system (new PA designation). Certain land use activities would likely be prohibited or restricted as part of these processes.</p> <p>Another part of the project's PAs work is targeting the <u>improvement of the management of 5 existing PAs</u> i.e. Kyzylkum State Reserve; Lower Amudarya Biosphere Reserve; State Integrated Sanctuary Saygachy; Dengizkul Lake State Refuge; Sudoche Refuge (Output 3.1.2). The work is focusing on improved management effectiveness of the existing PAs through PA regime compliance and enforcement, zoning, patrolling, research, species-focused conservation activities.</p> <p>A better integration of PAs into the surrounding geographies is implemented under Output 3.1.2 (linked with 3.2.1) aiming at identification and delineation of core areas and functional zones that will lead to the establishment of a revised conservation zone within the existing</p>	<p>The risk management will be implemented through Process Framework, Stakeholder Engagement Plan, Gender Action Plan and project level GRM. (Please see Annex 14 Stakeholder Engagement Plan – it includes a template for the Process Framework).</p> <p>The Process framework is embedded in the project strategy and is part of the project's work on the new PAs (Output 3.1.1.) and existing PAs (Output s 3.1.2 and 3.2.1).</p> <p>The PF will engage local population in the targeted areas. These local meeting will create awareness on the work on PAs and will address and reconcile any real or perceived economic limitations that the new PA legal mandate may impose.</p> <p>Evaluation of the necessity of potential compensatory mechanisms and eligibility criteria, describing the measures that will assist the potential affected persons to improve their livelihoods will be identified as the result of these assessments and discussions.</p> <p>The project manager will ensure that Information and guidance to local communities about the UNDP Conflict resolution and grievance mechanism is provided.</p> <p>The formal process of the new PAs designation will not commence before/unless securing consensus with the local communities over the PAs border, management arrangements and monitoring measures (please see Annex 14 Stakeholders Engagement Plan / Process Framework Template; and Annex 6, SESP) .</p> <p>During the consultations, the project manager supported by the project's field coordinators and local community outreach consultants will ensure that any potential risk of economic displacement in the affected communities, resulting from the designation of new</p>

			<p>Kyzylkum State reserve IUCN I. Functional zones and adequate regulations will be established and better delineated on the ground. In addition, the project conservation activities such as relocation of part of the population of Bukhara deer in Lower Amudarya Biosphere Reserve, may fuel conflicts with local communities over potential encroachment .</p> <p>The enhanced protection regime and a better zoning and delineation on-the-ground of PAs core and buffer areas (although having significant environmental benefits) it may bring along potential risks of restrictions/limitations on the use of natural resources that may be at odd with the current agricultural practices of the local communities in project areas.</p> <p>Associated with that, is the risk that not all key user groups of natural resources at project sites are consulted in project implementation and they will be affected by the restrictions on the use of natural resources. Especially since the targeted protected areas are primarily in remote rural areas, and the inhabitants in such regions typically have a higher percentage of people living in poverty, and/or marginalized groups that are likely to be on the verge of exclusion.</p>	<p>PAs will be mitigated through the Process Framework for 7 PAs:</p> <ul style="list-style-type: none"> • The following new PAs: South Ustyurt National Park; Central Kyzylkum National Park; Sudochye system of lakes; Mejdurechye Akdarya-Kazakdarya; Akpetki (Output 3.1.1) • The following existing PAs: Kyzylkum State Reserve; Lower Amudarya Biosphere Reserve. <p>Furthermore, the Stakeholders Engagement Plan (Annex 14) contains meaningful engagement measures and stakeholders roles and responsibilities. During the project implementation, the Stakeholder Engagement Plan will be updated to fulfill the requirements of Standard 5 (or a Livelihood Action Plan will be developed if needed for SES compliance, based on the findings of the screenings etc.) in the first year of implementation before the relevant activities begin management. Designation of PAs and any changes to the natural resources regime identified as having the potential to lead to limitations and restrictions of access to resources, will not be implemented until/unless suitable, agreed management measures are in place. All the necessary approvals will be obtained from national and local authorities and in line with the Process Framework (and UNDP SES).</p> <p>Gender Action Plan contains measures that will be implemented in order to ensure that women have equal opportunities to participate and benefit from the project activities. The project will hire a gender expert that will supervise the implementation of the Gender Action Plan</p>
<p>Risk 5: Land restoration measures intended to reduce threats to critical habitats and environmentally sensitive areas could potentially end up harming them.</p>	<p>I=3 L=2</p>	<p>Moderate</p>	<p>Output 2.4 comprises a suite of measures to restore degraded land on 1,500 ha and on sustainable forest management through assisted regeneration. Under Output 2.4, activities may include the transformation of degraded arable or pasture lands to fodder or pasture areas by biodrainage, planting licorice and</p>	<p>The risks will be managed through site specific screening for land restoration activities.</p> <p>The project will apply site specific feasibility/risk assessments (including climate-related risks and vulnerabilities) and if needed an appropriately scoped ESIA will be applied, to identify, prevent and mitigate potential negative impacts on the critical habitats . The</p>

<p>SES Standard 1 Biodiversity and NRM, 1.1 SES Standard 1 Biodiversity and NRM, 1.2 SES Standard 1 Biodiversity and NRM, 1.6 SES Standard 1 Biodiversity and NRM, 1.7 SES Standard 1 Biodiversity and NRM, 1.8</p> <p>SES Standard 8 Pollution Prevention and Resource Efficiency 8.2</p>			<p>alfalfa, implementation of smart irrigation techniques that improved its condition; integrated innovative agroforestry measures through the cultivation of perennial crops, primarily trees (including fruit trees) and shrubs together with interplanted arable crops.</p> <p>The likelihood of the risks from targeted project interventions is rated “moderately likely” but given that the objective of the project is to enhance the environmental and social qualities of these areas, the risk of negative and environmental impacts is considered limited in scale and manageable through applicable standard practices, use of native species and/or previously tested methods . Although the environmental risks are considered moderate, limited in scale and with the likelihood of being reasonably managed, and the sites are at sufficient distance from the protected areas, there will be nevertheless minor changes to the farm landscape, existing flora and fauna species at the construction sites and local settlements such as minor changes in land cover and potential damage to the vegetation type; temporary disturbance of rodent burrows or bird nests may be possible.</p>	<p>land restoration measures are expected to ensure livelihood improvements and environmental sustainability during and beyond the project period.</p> <p>The qualified project’s experts (Riparian Forest Engineer, Hydrologists, Pasture Agronomist, Crop irrigation specialists, Conservation biologists) will work with the safeguards experts/company to properly identify risks and proposed management measures. The Project Community Outreach Experts will facilitate local consultations with community representatives on the proposed SLM measures, targeted locations and necessary assessments.</p> <p>The project is aiming at demonstrating sustainable agricultural practices around Protected Areas (PAs) or Key Biodiversity Areas (outside PAs). These demonstrative activities will be agreed with the local authorities, respective land managers and project specialists. The project design includes activities with no or minimal risk to the critical or sensitive habitats. The technologies envisaged to be implemented by the project have been previously tested by various donor supported initiatives including UNDP: e.g. efficient irrigation technologies (drip, sprinkler etc.); land stabilization (planting of trees); wells rehabilitation; use of organic fertilizers.</p>
<p>Risk 6. The project activities focused on re-planting (native) tree species along riparian forests strips could have unforeseen ecological consequences.</p> <p>Standard 1 Biodiversity and NRM, 1.8</p>	<p>I=2 L=2</p>		<p>Under Output 2.5 the project will provide technical assistance and biological materials (tree seedlings) for the afforestation activities, and there may a risk posed by the chosen tree species having unforeseen ecological consequences. The project team will work with the partner local forestry services and qualified project experts to ensure ecologically appropriate locations for planting trees, and will use native species (this is the purpose of the activity). The relatively small area of tree planting means that any ecological</p>	<p>No measures needed as the risk is Low.</p>

			impact will be with a limited impact in case of a potential adverse effect. The overall environmental impact – considering the benefits of the planted trees – is expected to be positive. The purpose of the activity is to restore areas of forest that have been degraded.	
<p>Risk 7. The project supported demonstration activities may inadvertently be implemented at/in proximity of significant cultural and historical significance sites.</p> <p>SES Standard 4; 4.1; 4.2</p>	I=2 L=2	Low	The project sites for Outputs 1.2; 2.3; 2.4; 2.5 have been carefully selected during the PPG based on several criteria chiefly among which is the land condition and water irrigation system and proximity to PAs. There is very low risk that these sites be overlapping with cultural and/or historically significant sites. However, the sites will be validated during the project inception/in the first year, based on agreements with the forestry enterprises and local communities.	No measures needed as the risk is Low.
<p>Risk 8. Small scale construction site associated with the monitoring station in South Ustyurt and installation of observation towers in the existing PAs may have negative impact on critical habitats and species.</p> <p>SES Standard 1 Biodiversity and NRM, 1.1 SES Standard 1 Biodiversity and NRM, 1.2 SES Standard 1 Biodiversity and NRM, 1.7 Standard 3 Community Safety 3.1.3.2 3.3</p> <p>SES Standard 7 Labor and working condition; 7.1</p>	I=3 L=2	Moderate	The project will support the construction of a field station in South Ustyurt (new PA) under Output 3.1.1. This base will serve as a field infrastructure for scientists and reserve inspectorate after the protected area become operational. There is a risk of disturbing the habitat of the Ustyurt ram and Goiterred gazelle during the construction works (although these are very limited). In addition, under Output 3.1.2 the project will support the installation of observation towers for monitoring of birds but also of any fire hazards enabling rapid interventions. There is a limited risk of habitat disturbance at site.	<p>The project will apply site-specific screening and appropriately scoped ESIA (as per ESMF Annex 30) to infrastructure development to identify, prevent and mitigate potential impacts on ecologically sensitive habitats through the construction process or ongoing use.</p> <p>The risks will be mitigated through site-level procedures according to SES requirements. Where risks cannot be avoided, management measures will be put in place prior to the start of the relevant activities.</p> <p>Infrastructure development will be designed in an ecologically sensitive manner and apply best practices in low-impact, ecologically sensitive design and construction. Moreover, project infrastructure will be developed/scoped in accordance with specific national legislation and norms. Additional restrictions may apply for example:</p> <ul style="list-style-type: none"> - Ensure that constructions are located at least 100 meters away from the existing streams, rivers, water sources and no discharge from

				<p>such establishments should follow their path into nearby water bodies.</p> <ul style="list-style-type: none"> - Minimize area of ground clearance. Avoiding sensitive alignments, such as those which include ecologically sensitive areas. - In order to safeguard the loss of the aesthetic values of the landscape, use of ecofriendly design, local architecture and materials will be encouraged. - Observation towers should maintain adequate distance from the nesting areas and canopies - Design of the observation towers should be ecofriendly, with the use of local materials - Installation of appropriate and adequate number of signages. <p>Based on the remoteness of the area the relatively low levels of population in the vicinity of the PAs, any potential impact on local communities is considered moderate/limited and manageable following SES requirements for safeguards triggered (Standard 1; Standard 3; Standard 7).</p> <p>As a precautionary measure, the contractual terms (aligned with the SES requirements) will fully integrate regular step-by-step monitoring of each phase of the construction, and only proceed to the next stage when no harm confirmed. In case any of the contractor’s activities going off track, the contracts will have a clause for the subcontractor to rectify (on his own account) any deviation from the targeted result that the TOR envisage.</p>
<p>Risk 9: Enforcement of PAs regime and/or wildlife corridors, following applicable environmental norms and legislation could pose risks of conflicts between rangers and local communities engaged in traditional livelihoods and practices.</p> <p>SES Principle 2 Human Rights, P2 SES Principle 2 Human Rights, P7</p>	<p>I=3 L=3</p>	<p>Moderate</p>	<p>Enforcement issues of the <u>environmental regulations in the new PA (Output 3.1.1)</u> or enforcement of <u>wildlife corridors/buffer areas regime (Output 3.2.1)</u> may lead to conflicts between the rangers and the local community or among different local community members.</p> <p>When working in developing countries there exists a risk that the entity responsible for PA management (be it governmental authority or community</p>	<p>The Management measures will be addressed through Trainings and Grievance and Redress Mechanism.</p> <p>In addition, the project will ensure that management measures (addressing SES requirements) will be included in the new PAs management plans (corresponded to IUCN II and IUCN IV categories) as noted in the Project Document (Output 3.1.1). The project’s qualified experts, including the Capacity Development experts, local coordinators, technical support staff and ministry counterparts will work with the Local Advisory Committees and facilitate the</p>

<p>SES Standard 3 Community Health, Safety and Security, 3.8</p>			<p>organization) does not have the full capacity necessary to fulfill their duties in terms of governance, administration, and management of natural resources. The enforcement personnel need to be appropriately trained to implement legal enforcement and manage relationship with local residents.</p>	<p>assessments, local dialogue and round table meetings that the process involves.</p> <p>In addition, the project will trainings/capacity building (Output 3.2.2) for PAs personnel, border inspectors, local police and central and local authorities with an emphasis on human rights principles (in line with the SES).</p> <p>Some of the trainings will target specifically community outreach related topics, and addressing illegal activities "Interaction with local communities" (opportunities for engaging local population in biodiversity conservation, joint patrolling of territories, protection of key sites)- Output 3.2.2. The training will include a specific module for rangers, on Local Communities and Cultures, in order to strengthen understanding on community rights and needs; respect to human rights and empowering communities to manage and protect wildlife and critical habitats.</p> <p>Furthermore, the project will facilitate regular meetings between PA managers, ranger patrol staff, communities, inspectorates, border security in or in the proximity of the core areas to analyse trends in monitoring and legal compliance, aiming at addressing ongoing threats in a collaborative manner, including issues related to cross-border migration of wildlife (Output 3.2.2).</p>
<p>Risk 10: Government resource management authorities may not have the capacity to fulfill all aspects of their mandate, and rural resource users may not have the capacity to claim their rights, which could potentially lead to the violation of human rights.</p> <p>SES Principle 2 Human Rights, P2 SES Principle 2 Human Rights, P3</p>	<p>I = 3 L = 3</p>	<p>Moderate</p>	<p>There is a <u>risk that institutional government duty-bearers</u> related to the management of high value Aral basin ecosystems and land resources do not have the capacity to meet their obligations.</p> <p>In addition, by the same principle and rationale of the fact that the project will be working on natural resource management issues in rural and remote areas, there is a risk that <u>resource users and other rights holders do not have the capacity to claim their rights</u>. Such resource users living in rural and remote</p>	<p>The risks will be managed through Trainings/capacity building project activities (Output 4.1.1) as well as targeted trainings for local natural resources users (embedded under Output 3.2.3). The project will be working closely with all stakeholders to support government natural resource management authorities and institutions to meet their obligations, and with resource user rights holders to claim their rights.</p> <p>As with the previous risks, the project will be working closely with all stakeholders to support government natural resource management authorities and institutions to meet their obligations, and with resource user rights holders to claim their rights. This will be</p>

			<p>areas may not been fully educated and informed about what their rights are (in this case, in relation to usufruct or other natural resource-related rights), or the procedures to claim those rights. There is a risk that rights holders may not have the legal, self-organizing, or financial means to claim their rights. The risk is assessed based on situation and context that the project will be working in. The fact that there is limited capacity on both the part of the government and rights holders is an inherent element to working on sustainable livelihoods in developing countries.</p>	<p>accomplished through multiple stakeholder consultation sessions during all relevant aspects of the project to ensure that all parties are aware of and understand the relevant obligations and rights.</p>
<p>Risk 11: The expected project impacts of the conservation of endangered and threatened species, restoration of degraded land, and sustainable management of forest and pasture resources could be sensitive to changing climatic conditions in the future.</p> <p>SES Standard 2 Climate Change Vulnerability, 2.2 SES Standard 2 Climate Change Vulnerability, 2.4</p>	I=3 L=2	Moderate	<p>Adverse <u>impacts of extreme climatic events</u> (drought; sand and windstorms; seasonal floods) can affect project's interventions in the field and the livelihoods of local communities living in the target areas.</p>	<p>The management measures will be implemented through the project's activities. The various project's assessments will be informed by the existing climate risk profile/studies (elaborated within the framework of other projects) and through the project's own land/water and climate risk assessments (Output 1.1.).</p> <p>Initial climate related risks assessments will also be considered in the implementation of all the envisaged plans and SLM measures, included among the project activities.</p> <p>Attention to the current and potential impacts of climate change has been built-in to all aspects of the project. The project work will link the provision of adequate supply of water to lakes, wetlands and riparian zones to "water saving agriculture" measures, aligned with the prevent-reduce-restore LDN philosophy.</p> <p>A large a multidisciplinary team of specialists will ensure that the partners and stakeholders will apply the best available climate change forecasts data for Uzbekistan's lower Amu Darya basin, and will ensure that all project activities and plans take potential future climate impacts into consideration.</p> <p>The project will calculate the minimum ecological flow needed for the survival of the last remaining wetlands of Amudarya delta taking into account the predicted</p>

				<p>climate induced water deficits. This will provide scientific based evidence for adequate policy and institutional provisions for sustainable management of maximum and minimum ecological flows to lakes, wetlands, and riparian zones. (Output 2.1)</p> <p>The hydroclimatic modeling (under Output 1.1) and water use trend analysis will provide scientific evidence for the revised irrigation norms that accounts for climate change (Output 1.2). The project supported Integrated Water use and Climate Resilient Plans (Output 1.2) are developed based on the latest climate data. The development of the Integrated LDN compatible Land Use Plans (Output 2.2) will adhere to the LDN principles, and will by default, embed climate resilience measures.</p> <p>The awareness raising activities will include information on climate risk insurance models for farmers (Output 4.1).</p> <p>The project will support species and habitat inventories and will identify potential gaps in the existing system of PAs in order to effectively conserve biodiversity, considering the potential for ecosystem change and ecological shifts due to climate change impacts (Output 3.1). As part of the project's work on strengthening the management effectiveness of PAs it will also strengthen environmental monitoring capacities in order to better track the future effects of climate change within PAs and the targeted KBAs more broadly. The project's work to support the minimum ecological flow and increased allocation of water to lakes and wetlands KBAs/IBAs (Output 1.1.) will be grounded in the best available and most recent climate science relevant for this region of Uzbekistan.</p> <p>Furthermore, the project adheres to LDN Principles and will screen the activities against the LDN Checklist (Annex 28). The ecosystem management benefits will be mostly associated with the resilience of land and water management resources, sustainable management regimes and rationalised and efficient use of water resources for improved management of land and forests</p>
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<p>Risk 12: Project activities involving local/field interventions and close engagement with local communities may inadvertently contribute to the spread of COVID-19.</p> <p>Standard 3 Community Health, Safety and Security, 3.4</p>	<p>I=3 L=3</p>	<p>Moderate</p>	<p>Activities at local level are based on participatory approaches, and most of the times will include meetings and local consultations. There are a number of training workshops and awareness events, round table meetings etc.</p>	<p>The risk will be mitigated through adequate safeguards such as: (i) clear procedures in place in case of COVID19 reinstatement of restrictions, approved during project inception (ii) use of protective equipment, maintaining social distancing and using remote methods of engagement whenever possible (iii) if adequate safeguards cannot be put in place, activities that entail close local communities engagement will be put on hold if necessary, and work programme/budget will be revised as needed. Wherever possible on-line meeting platforms will be used and travel decreased. All project meetings will be organized mindful of government regulations and healthy standards and other appropriate safeguards (including those of UNDSS).</p>
<p>Risk 13: The project may inadvertently contribute to potential perpetuation of discriminations against women. There are lingering disparities between men and women, particularly in rural areas and in the patriarchal cultures of some of the ethnic minority communities, which could be inadvertently replicated.</p> <p>SES Principle 3, Gender, P10</p>	<p>I=2 L=3</p>	<p>Moderate</p>	<p>The Project could potentially perpetuate discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities. In the pilot farmers associations and livestock farming sector, women account for around 51-52% of the population. They are mainly engaged in housekeeping, teaching, and administrative support services. Many more women form part of the unpaid family labor in home farming and lease of agricultural lands.</p>	<p>The management of this risk will be done through the implementation of the Gender Action Plan (GAP) and will be monitored by the project specialized experts.</p> <p>The project design has consistently mainstreamed gender sensitive approaches and has created opportunities for tackling women’s needs, ranging from designing tailored training activities to organizing dedicated segments of radio programmes for women farmers. The project will provide ample opportunities for women to learn about LDN and SLM measures and resilient livelihoods and integrate best practices into their farm practices. Though the training programs and Farmer Field Schools, women will also be able to access the capacity building and training required to practice climate-resilient agriculture, as well as to diversify their livelihoods in more resilient ways. The project will ensure gender balance in all project activities (e.g. seminars, community level events) including in the membership of different decision-making bodies (Working groups; Project Boards; Evaluation Committees) including access to project financial assistance (grant scheme). Gender considerations will inform any community level vulnerability analysis linked to local infrastructure or demonstration plot development through consultation regarding needs and preferences on types of training and investment. The project will also gather gender-disaggregated data for evaluation purposes and use gender sensitive indicators</p>

				(particularly around beneficiaries) to facilitate planning, implementation and monitoring. Complaints will be addressed through the project level Grievance redress mechanism.
<p>Risk 14. The project may fail to ensure that labor rights, especially of vulnerable groups, are respected by local subcontractors. There could be risk of forced child labor at project sites.</p> <p>SES Standard 7; 7.1 SES Standard 7; 7.3</p>	I=3 L=3	Moderate ⁵⁷	Uzbekistan ratified all ILO main conventions. The information on the ILO website with regard to application of labor standards in Uzbekistan reveal that forced and child labor in Uzbekistan cotton field continue to fall. ⁵⁸	<p>The management measures will be devised on case by case basis. The project will ensure that national working standards (Labor Code) are respected for all the project activities. The requirements of this Standard are to be applied in an appropriately-scaled manner based on the nature and scale of the project, its specific activities, the project's associated social and environmental risks and impacts, and the type of contractual relationships with project workers.</p> <p>The management procedures will be that specific requirements of the terms and conditions of the employment will be established, that will:</p> <ul style="list-style-type: none"> - Comply with minimum age requirements set out in International Labor Organization (ILO) Conventions or national legislation (whichever offers the greatest protection to young people under the age of 18) and keep records of the dates of birth of all employees verified by official documentation - Check the activities carried out by young workers and ensure that children under 18 are not employed in hazardous work, including in contractor workforces. Hazardous work will normally be defined in national legislation and will be likely to include most tasks in construction and several in agriculture. - Assess the safety risks relating to any work by children under 18 and carry out regular monitoring of their health, working conditions and hours of work - Ensure that any workers aged 13-15 are only doing light work outside school hours, in

⁵⁷ Recommended for the M&E activities and assessment of this risk at project site: FAO's [Handbook for monitoring and evaluation of child labour in agriculture](#) (2015) - an important resource for designing, assessing and monitoring projects that need to address the risks of child labour in agricultural production and pastoral activities.

⁵⁸ https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_735883/lang--en/index.htm

				<p>accordance with national legislation, or working in a government-approved training programme</p> <ul style="list-style-type: none"> - Ensure that contractors have adequate systems in place to check workers' ages, identify workers under the age of 18 and to ensure that they are not engaged in hazardous work, and that their work is subject to appropriate risk assessment and health monitoring <p>In addition, the Project will ensure that appropriate wages will be paid per assigned tasks. Security and safety standards will also be respected and enforced. In addition to the UNDP Stakeholder response mechanism, the project will set up a project- Grievance Redress Mechanism to provide for a fair and free from influence entry point for their potential complaints and/or grievances. The Complaints Register and Grievance Redress Mechanism will provide an accessible, rapid, fair and effective response to concerned stakeholders, especially any vulnerable group who often lack access to formal legal regimes.</p>
<p>Risk 15. Expansion of PAs system and/or improved zoning could lead to risk to endangered species.</p> <p>SES Standard 1 Biodiversity and NRM, 1.1 SES Standard 1 Biodiversity and NRM, 1.2 SES Standard 1 Biodiversity and NRM, 1.6 SES Standard 1 Biodiversity and NRM, 1.7 SES Standard 1 Biodiversity and NRM, 1.8 SES Standard 1 Biodiversity and NRM 1.4</p>	I=3 L=3	Moderate	<p>The proposed zoning activities in the existing PAs may end up posing a risk to endangered species. For example the project will support the State Committee for Ecology and Environmental Protection to carry out the preparatory works to re-define the core area in Lower Amudarya Biosphere and to find other suitable habitats for Bukhara deer and relocate part of the population.</p> <p>In Kyzylkum State Reserve, the project will establish feeding corridors for Bukhara deer.</p> <p>Currently the available tugai areas decreased at such a rate that the habitat no longer has the carrying capacity for the population of Bukhara deer and the importance of an adequate ecological flow to allow for regeneration of tugai areas is crucial. Bukhara deer population</p>	<p>Project activities will be carefully planned in consultation with relevant experts and local communities (Output 3.1.2).</p> <p>The project experts will analyse available baseline, and will build on the knowledge generated by other donor implemented projects (e.g. GIZ project " Mapping natural resources along Amudarya banks in Uzbekistan and Turkmenistan") and will develop and analyse scenarios for optimal number of species in the core areas and will support the delineation of a feeding corridor that could expand the current core zones and subsequent amendments to PA management and monitoring program.</p> <p>The project will explore opportunities to establish collaboration agreements between Lower Amudarya Biosphere Reserve and research organizations to study dynamics of restoration of vegetation and wildlife, within the context of the reserve. At the same time, the project will conduct</p>

			is currently at 1233 individuals. It is estimated that approximately 80-100 individuals will be relocated by end project (based on the results of a study commission by GIZ and Zukkov Foundation ⁵⁹).	
QUESTION 4: What is the overall project risk categorization?				
	Low Risk	<input type="checkbox"/>		
	Moderate Risk	<input checked="" type="checkbox"/>		
	Substantial Risk	<input type="checkbox"/>		
	High Risk	<input type="checkbox"/>		
QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are triggered? (check all that apply)				
Question only required for Moderate, Substantial and High Risk projects				
	Is assessment required? (check if "yes")	x		Status? (completed, planned)
	if yes, indicate overall type and status		X Targeted assessment(s)	Completed during PPG: gender analysis, stakeholder analysis
			x SESA	Planned during implementation: to be determined based on site-specific screening
			x ESIA	Planned during implementation: to be determined based on site-specific screening
	Are management plans required? (check if "yes")	X		
	If yes, indicate overall type		X Targeted management plans	Completed during PPG: Gender Action Plan,

⁵⁹ GIZ Report "Overview of possible measures to prevent conflict between the Bukhara deer and the local population" 2019

			(e.g. Gender Action Plan, Emergency Response Plan, others)	Stakeholder Engagement Plan Planned during implementation: Process Framework, Livelihood Action Plan (if needed), others as needed per site-specific screening and assessment
		x	ESMP	Planned during implementation: to be determined based on site-specific screening
		x	ESMF (Environmental and Social Management Framework)	Completed during PPG
	Based on identified risks, which Principles/Project-level Standards triggered?		Comments (not required)	
	Overarching Principle: Leave No One Behind			
	Human Rights	X		
	Gender Equality and Women's Empowerment	X		
	Accountability	X		
	1. Biodiversity Conservation and Sustainable Natural Resource Management	X		
	2. Climate Change and Disaster Risks	X		
	3. Community Health, Safety and Security	X		
	4. Cultural Heritage	<input type="checkbox"/>		
	5. Displacement and Resettlement	X		
	6. Indigenous Peoples	<input type="checkbox"/>		

	7. Labor and Working Conditions	X	
	8. Pollution Prevention and Resource Efficiency	X	

Final Sign Off

Final Screening at the design-stage is not complete until the following signatures are included

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

Attachment 1. Social and Environmental Risk Screening Checklist

Checklist Potential Social and Environmental Risks		
INSTRUCTIONS: The risk screening checklist will assist in answering Questions 2-6 of the Screening Template. Answers to the checklist questions help to (1) identify potential risks, (2) determine the overall risk categorization of the project, and (3) determine required level of assessment and management measures. Refer to the SES toolkit for further guidance on addressing screening questions.		
Overarching Principle: Leave No One Behind		Answer (Yes/No)
Human Rights		
P.1	Have local communities or individuals raised human rights concerns regarding the project (e.g. during the stakeholder engagement process, grievance processes, public statements)?	No
P.2	Is there a risk that duty-bearers (e.g. government agencies) do not have the capacity to meet their obligations in the project?	Yes
P.3	Is there a risk that rights-holders (e.g. project-affected persons) do not have the capacity to claim their rights?	Yes
<i>Would the project potentially involve or lead to:</i>		
P.4	adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	No
P.5	inequitable or discriminatory impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups, including persons with disabilities? ⁶⁰	Yes
P.6	restrictions in availability, quality of and/or access to resources or basic services, in particular to marginalized individuals or groups, including persons with disabilities?	Yes
P.7	exacerbation of conflicts among and/or the risk of violence to project-affected communities and individuals?	Yes
Gender Equality and Women's Empowerment		
P.8	Have women's groups/leaders raised gender equality concerns regarding the project, (e.g. during the stakeholder engagement process, grievance processes, public statements)?	No
<i>Would the project potentially involve or lead to:</i>		
P.9	adverse impacts on gender equality and/or the situation of women and girls?	No
P.10	reproducing discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	Yes

⁶⁰ Prohibited grounds of discrimination include race, ethnicity, sex, age, language, disability, sexual orientation, gender identity, 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 and transsexual people.

P.11	limitations on 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? <i>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</i>	Yes
P.12	exacerbation of risks of gender-based violence? <i>For example, through the influx of workers to a community, changes in community and household power dynamics, increased exposure to unsafe public places and/or transport, etc.</i>	No
Sustainability and Resilience: Screening questions regarding risks associated with sustainability and resilience are encompassed by the Standard-specific questions below		
Accountability		
<i>Would the project potentially involve or lead to:</i>		
P.13	exclusion of any potentially affected stakeholders, in particular marginalized groups and excluded individuals (including persons with disabilities), from fully participating in decisions that may affect them?	Yes
P.14	grievances or objections from potentially affected stakeholders?	Yes
P.15	risks of retaliation or reprisals against stakeholders who express concerns or grievances, or who seek to participate in or to obtain information on the project?	No
Project-Level Standards		
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management		
<i>Would the project potentially involve or lead to:</i>		
1.1	adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services? <i>For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes</i>	Yes
1.2	activities within or adjacent to critical habitats and/or environmentally sensitive areas, including (but not limited to) 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	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	risks to endangered species (e.g. reduction, encroachment on habitat)?	Yes
1.5	exacerbation of illegal wildlife trade?	No
1.6	introduction of invasive alien species?	Yes
1.7	adverse impacts on soils?	Yes
1.8	harvesting of natural forests, plantation development, or reforestation?	Yes

1.9	significant agricultural production?	Yes
1.10	animal husbandry or harvesting of fish populations or other aquatic species?	Yes
1.11	significant extraction, diversion or containment of surface or ground water? <i>For example, construction of dams, reservoirs, river basin developments, groundwater extraction</i>	Yes
1.12	handling or utilization of genetically modified organisms/living modified organisms? ⁶¹	No
1.13	utilization of genetic resources? (e.g. collection and/or harvesting, commercial development) ⁶²	No
1.14	adverse transboundary or global environmental concerns?	No
Standard 2: Climate Change and Disaster Risks		
<i>Would the project potentially involve or lead to:</i>		
2.1	areas subject to hazards such as earthquakes, floods, landslides, severe winds, storm surges, tsunami or volcanic eruptions?	No
2.2	outputs and outcomes sensitive or vulnerable to potential impacts of climate change or disasters? <i>For example, through increased precipitation, drought, temperature, salinity, extreme events, earthquakes</i>	Yes
2.3	increases in vulnerability to climate change impacts or disaster risks now or in the future (also known as maladaptive or negative coping practices)? <i>For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding=</i>	Yes
2.4	increases of greenhouse gas emissions, black carbon emissions or other drivers of climate change?	Yes
Standard 3: Community Health, Safety and Security		
<i>Would the project potentially involve or lead to:</i>		
3.1	construction and/or infrastructure development (e.g. roads, buildings, dams)? (Note: the GEF does not finance projects that would involve the construction or rehabilitation of large or complex dams)	Yes
3.2	air pollution, noise, vibration, traffic, injuries, physical hazards, poor surface water quality due to runoff, erosion, sanitation?	Yes
3.3	harm or losses due to failure of structural elements of the project (e.g. collapse of buildings or infrastructure)?	Yes
3.4	risks of water-borne or other vector-borne diseases (e.g. temporary breeding habitats), communicable and noncommunicable diseases, nutritional disorders, mental health?	Yes
3.5	transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	No

⁶¹ See the [Convention on Biological Diversity](#) and its [Cartagena Protocol on Biosafety](#).

⁶² See the [Convention on Biological Diversity](#) and its [Nagoya Protocol](#) on access and benefit sharing from use of genetic resources.

3.6	adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g. food, surface water purification, natural buffers from flooding)?	Yes
3.7	influx of project workers to project areas?	No
3.8	engagement of security personnel to protect facilities and property or to support project activities?	Yes
Standard 4: Cultural Heritage		
<i>Would the project potentially involve or lead to:</i>		
4.1	activities adjacent to or within a Cultural Heritage site?	Yes
4.2	significant excavations, demolitions, movement of earth, flooding or other environmental changes?	Yes
4.3	adverse impacts to 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
4.4	alterations to landscapes and natural features with cultural significance?	Yes
4.5	utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	No
Standard 5: Displacement and Resettlement		
<i>Would the project potentially involve or lead to:</i>		
5.1	temporary or permanent and full or partial physical displacement (including people without legally recognizable claims to land)?	No
5.2	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	risk of forced evictions? ⁶³	No
5.4	impacts on or changes to land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	Yes
Standard 6: Indigenous Peoples		
<i>Would the project potentially involve or lead to:</i>		
6.1	areas where indigenous peoples are present (including project area of influence)?	No
6.2	activities located on lands and territories claimed by indigenous peoples?	No
6.3	impacts (positive or negative) to 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	No

⁶³ Forced eviction is defined here as the permanent or temporary removal against their will of individuals, families or communities from the homes and/or land which they occupy, without the provision of, and access to, appropriate forms of legal or other protection. Forced evictions constitute gross violations of a range of internationally recognized human rights.

	and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)? <i>If the answer to screening question 6.3 is "yes", then the potential risk impacts are considered significant and the project would be categorized as either Substantial Risk or High Risk</i>	
6.4	the 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?	No
6.5	the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No
6.6	forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources? <i>Consider, and where appropriate ensure, consistency with the answers under Standard 5 above</i>	No
6.7	adverse impacts on the development priorities of indigenous peoples as defined by them?	No
6.8	risks to the physical and cultural survival of indigenous peoples?	No
6.9	impacts on the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices? <i>Consider, and where appropriate ensure, consistency with the answers under Standard 4 above.</i>	No
Standard 7: Labor and Working Conditions		
<i>Would the project potentially involve or lead to: (note: applies to project and contractor workers)</i>		
7.1	working conditions that do not meet national labor laws and international commitments?	Yes
7.2	working conditions that may deny freedom of association and collective bargaining?	No
7.3	use of child labor?	Yes
7.4	use of forced labor?	No
7.5	discriminatory working conditions and/or lack of equal opportunity?	No
7.6	occupational health and safety risks due to physical, chemical, biological and psychosocial hazards (including violence and harassment) throughout the project life-cycle?	Yes
Standard 8: Pollution Prevention and Resource Efficiency		
<i>Would the project potentially involve or lead to:</i>		
8.1	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?	No
8.2	the generation of waste (both hazardous and non-hazardous)?	Yes
8.3	the manufacture, trade, release, and/or use of hazardous materials and/or chemicals?	No

8.4	the use of chemicals or materials subject to international bans or phase-outs? <i>For example, DDT, PCBs and other chemicals listed in international conventions such as the Montreal Protocol, Minamata Convention, Basel Convention, Rotterdam Convention, Stockholm Convention</i>	No
8.5	the application of pesticides that may have a negative effect on the environment or human health?	Yes
8.6	significant consumption of raw materials, energy, and/or water?	Yes

Annex 7: UNDP Risk Register

#	Description	Risk Category	Impact & Probability/ Likelihood	Risk management measures	Risk Owner
1	<p>(SESP) Risk 1. The Project supported Integrated Water Management Framework for LADAB landscape could result in limitation of access to water resources.</p> <p><i>SES Principle 2 Human Rights, P5</i> <i>SESP principle 2 Human Rights, P6</i> <i>SES Principle 3, Gender, P10</i> <i>SES Principle 3, Gender, P11</i> <i>Principle 5, Accountability, P13</i> <i>Principle 5, Accountability, P14</i> <i>Standard 5 Displacement; 5.2</i> <i>Standard 5 Displacement; 5.4</i></p>	I=3 L=3	Moderate	<p>As per the ESMF (Annex 30 project Document) the risks will be managed through the implementation of an appropriately scoped/scaled SESA approach (with a subsequent ESMF if considered necessary per the SESA for compliance with the SES and national law); implementation of the Stakeholders Engagement Plan, Process Framework, Gender Action Plan and Grievance Redress Mechanism.</p> <p>A SESA approach will be applied to the development of the Integrated Water Management Framework, such that potential social and environmental downstream impacts arising from the development of subsequent (i) guidelines on revised irrigation norms, (ii) Integrated Water Management Plans at district level, (iii) policy directions, are considered as an explicit part of plans/policy/guidelines development. This will encompass potential climate change risks on water allocation among multiple water users including potential safety risks water users and potential limitation on livelihoods.</p> <p>Under Output 1.2, the project will leverage the stakeholders engagement (as per the Stakeholder Engagement Plan) with the support from the Multi-Stakeholder Committee and representatives of line ministries, the International Fund for Saving the Aral Sea (IFAS), Amudarya Basin Water Organization (BWO), the relevant Basin Irrigation System Authorities (BISAs), Water Users Associations (WUAs).</p>	Project Manager and PMU Staff UNDP Administrative/Financial Associate
2	Risk 2: The modification of land use and natural resources management regimes through the planning/implementation of sustainable land management (SLM) measures (e.g. forests, pastures, agricultural lands), envisaged to be implemented in support of long-term sustainability could affect access and use of resources by local communities, including the rural poor and women.	Environmental Social	I = 3 L = 2	The risks will be managed through the implementation of Targeted assessments (please see ESMF Annex 30 Project Document) for all these outputs. The project will develop these plans by applying targeted feasibility/risk assessments (including climate-related risks and vulnerabilities) and site-specific screening, in the targeted areas in order to identify, prevent and mitigate potential economic displacement and negative impact on the	Project Manager and PMU Staff UNDP Administrative/Financial Associate

	<p><i>SES Principle 2 Human Rights, P5</i></p> <p><i>SESP principle 2 Human Rights, P6</i></p> <p><i>SES Principle 3, Gender, P10</i></p> <p><i>SES Principle 3, Gender, P11</i></p> <p><i>Principle 5, Accountability, P13</i></p> <p><i>Principle 5, Accountability, P14</i></p> <p><i>Standard 5 Displacement; 5.2</i></p> <p><i>Standard 5 Displacement; 5.4</i></p>			<p>critical habitats . Site specific measures will be designed as needed and included in these plans.</p> <p>The land use plans, pasture management plans as well as forest management plans, are expected to ensure livelihood improvements and environmental sustainability during and beyond the project period. If confirmed via site-specific screening during implementation (as per the ESMF), then the risk of economic displacement will be managed by integrating all elements of a Livelihood Action Plan into the respective plan for the given site. The LDN Principles will be applied to all these plans: land use, water use and pastures/forests use plans. The adherence to these principles and the screening against the LDN Checklist (Annex 28) , among which Criterion C “Promotion of Inclusive Governance”, will provide for mitigation of potential economic displacement. With respect to gender, a Gender Analysis has been undertaken (as required), and a Gender Action Plan developed. The project will hire a gender expert that will supervise the implementation of the Gender Action Plan, the Stakeholders Engagement Plan, a project-level Grievance and Redress Mechanism (GRM) will be established and published so that all stakeholders, including remote communities are aware of its existence. The Project Manager and Local Field Coordinators will be responsible for documenting all grievances and ensuring they are addressed in a timely manner. Throughout the implementation, the project will continue to be working closely with all stakeholders to ensure that they are adequately consulted and their considerations integrated in the modification of resource-use regimes.</p>	
3	<p>Risk 3: Project developed plans, once implemented, may have a negative impact on the use of natural resources and/or the critical biodiversity habitats and species.</p>	<p>Environmental Social</p>	<p>I = 3 L =2</p>	<p>The risks will be managed through the Site-specific screening (as envisaged by the SES measures included in these plans) (please see ESMF Annex 30 Project Document) for all these outputs.</p>	<p>Project Manager and PMU Staff UNDP Administrative/Financial Associate</p>

	<p>SES Standard 1 Biodiversity and NRM, 1.1 SES Standard 1 Biodiversity and NRM, 1.2 SES Standard 1 Biodiversity and NRM, 1.3 SES Standard 1 Biodiversity and NRM, 1.6 SES Standard 1 Biodiversity and NRM, 1.7 SES Standard 1 Biodiversity and NRM 1.9 SES Standard 1 Biodiversity and NRM 1.10 SES Standard 1; 1.11 SES Standard 8; 8.6 Standard 2; 2.3 Standard 3; 3.6 SES Standard 8 Pollution Prevention and Resource Efficiency 8.2</p>			<p>The pastures and forests and land use management plans include the management measures that have been identified via the targeted assessments at the selected sites level during the development phase of these plans.</p> <p>Now, during the implementation phase of the plans, the targeted sites will be individually screened with the SESP and based on the results, appropriate site-level assessment (potential ESIA) will be conducted, in order to identify, prevent and mitigate potential negative impacts on the critical habitats . These assessments, would not result in the ESMP because the Pastures/Forests and Land Use plans would already encompass the necessary mitigation measures and would act as ESMPs.</p> <p>Competitive low-value grants will be issued to local entrepreneurs and small and midsize farmers. A screening mechanism will be built into selection process to ensure due diligence is applied for private sector partnership and businesses being supported by the project (Output 3.2.3).</p> <p>The project's deployment of qualified specialists (hydrologists, pasture agronomists; conservation biologists engineers, safeguards specialists/company etc.) will ensure that (starting with the design/development phase) these plans will encompass best practices and guidelines and specifications for the most efficient irrigation technology and scientifically supported SLM measures that pose no harm to environment and that cost effective, resource efficient and climate sensitive.</p> <p>UNDP has accumulated solid experience in successful demonstration and promotion of biodiversity friendly land and water management and climate smart irrigation technology, which will be used through this project.</p>	
4	<p>(SESP) Risk 4: Expansion of PAs system could lead to potential limitations or restrictions of the use of natural resources. Strengthening management of</p>	<p>Environmental Social</p>	<p>I = 3 L =3</p>	<p>The risk management measures will be implemented through the Process Framework, Stakeholder Engagement Plan, Gender Action Plan and project level GRM. (Please see Annex 14</p>	<p>Project Manager and PMU Staff</p>

<p>existing PAs, such as improved PAs zoning, strengthening the sanctuaries' protection regimes, and/or creation of ecological corridors could further restrict access to and use of biodiversity resources by local communities, affecting livelihoods.</p> <p>SES Principle 2 Human Rights, P5 SESP Principle 2 Human Rights, P6 SES Principle 3, Gender, P10 SES Principle 3, Gender, P11 Principle 5, Accountability, P13 Principle 5, Accountability, P14 Standard 5 Displacement; 5.2 Standard 5 Displacement; 5.4</p>			<p>Stakeholder Engagement Plan – it includes a template for the Process Framework).</p> <p>The Process framework is embedded in the project strategy and is part of the project's work on the new PAs (Output 3.1.1.) and existing PAs (Outputs 3.1.2 and 3.2.1).</p> <p>The PF will engage local population in the targeted areas. These local meetings will create awareness on the work on PAs and will address and reconcile any real or perceived economic limitations that the new PA legal mandate may impose.</p> <p>Evaluation of the necessity of potential compensatory mechanisms and eligibility criteria, describing the measures that will assist the potential affected persons to improve their livelihoods will be identified as the result of these assessments and discussions.</p> <p>The project manager will ensure that information and guidance to local communities about the UNDP Conflict resolution and grievance mechanism is provided.</p> <p>The formal process of the new PAs designation will not commence before/unless securing consensus with the local communities over the PAs border, management arrangements and monitoring measures (please see Annex 14 Stakeholders Engagement Plan / Process Framework Template; and Annex 6, SESP).</p> <p>During the consultations, the project manager supported by the project's field coordinators and local community outreach consultants will ensure that any potential risk of economic displacement in the affected communities, resulting from the designation of new PAs will be mitigated through the Process Framework for 7 PAs:</p> <p>-The following new PAs: <i>South Ustyurt National Park; Central Kyzylkum National Park; Sudoche system of lakes; Mejdurechye Akdarya-Kazakdarya; Akpetki (Output 3.1.1)</i></p>	<p>UNDP Administrative/Financial Associate</p>
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				<p>-The following existing PAs: Kyzylkum State Reserve; Lower Amudarya Biosphere</p> <p>Furthermore, the Stakeholders Engagement Plan (Annex 14) contains meaningful engagement measures and stakeholders roles and responsibilities. During the project implementation, the Stakeholder Engagement Plan will be updated to fulfill the requirements of Standard 5 (or a Livelihood Action Plan will be developed if needed for SES compliance, based on the findings of the screenings etc.) in the first year of implementation before the relevant activities begin management. Designation of PAs and any changes to the natural resources regime identified as having the potential to lead to limitations and restrictions of access to resources, will not be implemented until/unless suitable, agreed management measures are in place. All the necessary approvals will be obtained from national and local authorities and in line with the Process Framework (and UNDP SES).</p> <p>Gender Action Plan contains measures that will be implemented in order to ensure that women have equal opportunities to participate and benefit from the project activities. The project will hire a gender expert that will supervise the implementation of the Gender Action Plan</p>	
5	<p>(SESP)</p> <p>Risk 5: Land restoration measures intended to reduce threats to critical habitats and environmentally sensitive areas could potentially end up harming them.</p> <p>SES Standard 1 Biodiversity and NRM, 1.1 SES Standard 1 Biodiversity and NRM, 1.2 SES Standard 1 Biodiversity and NRM, 1.6 SES Standard 1 Biodiversity and NRM, 1.7</p>	Environmental Social	I = 3 L = 2	<p>The risks will be managed through site specific screening for land restoration activities.</p> <p>The project will apply site specific feasibility/risk assessments (including climate-related risks and vulnerabilities) and if needed an appropriately scoped ESIA will be applied, to identify, prevent and mitigate potential negative impacts on the critical habitats . The land restoration measures are expected to ensure livelihood improvements and environmental sustainability during and beyond the project period.</p>	Project Manager and PMU Staff UNDP Administrative/Financial Associate

	<p>SES Standard 1 Biodiversity and NRM, 1.8</p> <p>SES Standard 8 Pollution Prevention and Resource Efficiency 8.2</p>			<p>The qualified project's experts (Riparian Forest Engineer, Hydrologists, Pasture Agronomist, Crop irrigation specialists, Conservation biologists) will work with the safeguards experts/company to properly identify risks and proposed management measures. The Project Community Outreach Experts will facilitate local consultations with community representatives on the proposed SLM measures, targeted locations and necessary assessments.</p> <p>The project is aiming at demonstrating sustainable agricultural practices around Protected Areas (PAs) or Key Biodiversity Areas (outside PAs). These demonstrative activities will be agreed with the local authorities, respective land managers and project specialists. The project design includes activities with no or minimal risk to the critical or sensitive habitats. The technologies envisaged to be implemented by the project have been previously tested by various donor supported initiatives including UNDP: e.g. efficient irrigation technologies (drip, sprinkler etc.); land stabilization (planting of trees); wells rehabilitation; use of organic fertilizers.</p>	
6	<p>(SESP)</p> <p>Risk 6. The project activities focused on re-planting (native) tree species along riparian forests strips could have unforeseen ecological consequences.</p> <p>Standard 1 Biodiversity and NRM, 1.8</p>	<p>Environmental Social</p>	<p>I=2 L=2</p>	<p>No measures needed as the risk is Low.</p>	<p>Project Manager and PMU Staff UNDP Administrative/Financial Associate</p>
7	<p>(SESP)</p> <p>Risk 7 The project supported demonstration activities may inadvertently be implemented at/in proximity of significant cultural and historical significance sites.</p> <p>SES Standard 4; 4.1; 4.2</p>		<p>I=2 L=2</p>	<p>No measures needed as the risk is Low</p>	<p>Project Manager and PMU Staff UNDP Administrative/Financial Associate</p>

8	<p>(SESP) Risk 8</p> <p>Small scale construction site associated with the monitoring station in South Ustyurt and installation of observation towers in the existing PAs may have negative impact on critical habitats and species.</p> <p>SES Standard 1 Biodiversity and NRM, 1.1 SES Standard 1 Biodiversity and NRM, 1.2 SES Standard 1 Biodiversity and NRM, 1.7 Standard 3 Community Safety 3.1 3.2 3.3</p> <p>SES Standard 7 Labor and working condition; 7.1</p>	Environmental Social	I=3 L=2	<p>The project will apply site-specific screening and appropriately scoped ESIA (as per ESMF Annex 30) to infrastructure development to identify, prevent and mitigate potential impacts on ecologically sensitive habitats through the construction process or ongoing use.</p> <p>The risks will be mitigated through site-level procedures according to SES requirements. Where risks cannot be avoided, management measures will be put in place prior to the start of the relevant activities. Infrastructure development will be designed in an ecologically sensitive manner and apply best practices in low-impact, ecologically sensitive design and construction. Moreover, project infrastructure will be developed/scoped in accordance with specific national legislation and norms. Additional restrictions may apply for example:</p> <ul style="list-style-type: none"> - Ensure that constructions are located at least 100 meters away from the existing streams, rivers, water sources and no discharge from such establishments should follow their path into nearby water bodies. - Minimize area of ground clearance. Avoiding sensitive alignments, such as those which include ecologically sensitive areas. - In order to safeguard the loss of the aesthetic values of the landscape, use of ecofriendly design, local architecture and materials will be encouraged. - Observation towers should maintain adequate distance from the nesting areas and canopies - Design of the observation towers should be ecofriendly, with the use of local materials - Installation of appropriate and adequate number of signages. <p>Based on the remoteness of the area the relatively low levels of population in the vicinity of the PAs, any potential impact on local communities is considered moderate/limited and manageable</p>	Project Manager and PMU Staff UNDP Administrative/Financial Associate
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				<p>following SES requirements for safeguards triggered (Standard 1; Standard 3; Standard 7).</p> <p>As a precautionary measure, the contractual terms (aligned with the SES requirements) will fully integrate regular step-by-step monitoring of each phase of the construction, and only proceed to the next stage when no harm confirmed. In case any of the contractor's activities going off track, the contracts will have a clause for the subcontractor to rectify (on his own account) any deviation from the targeted result that the TOR envisage.</p>	
9	<p>(SESP)</p> <p>Risk 9: Enforcement of PAs regime and/or wildlife corridors, following applicable environmental norms and legislation could pose risks of conflicts between rangers and local communities engaged in traditional livelihoods and practices.</p> <p>SES Principle 2 Human Rights, P2 SES Principle 2 Human Rights, P7</p>	Environmental Social	I=3 L=3	<p>The Management measures will be addressed through Trainings and Grievance and Redress Mechanism.</p> <p>In addition, the project will ensure that management measures will be included in the new PAs management plans (corresponded to IUCN II and IUCN IV categories) to be further embedded under in the corresponding PAs Management Plans. The project's qualified experts, including the Capacity Development experts, local coordinators, technical support staff and ministry counterparts will work with the Local Advisory Committees and facilitate the assessments, local dialogue and round table meetings that the process involves.</p> <p>In addition, the project will trainings/capacity building (Output 3.2.2) for PAs personnel, border inspectors, local police and central and local authorities with an emphasis on human rights principles (in line with the SES).</p> <p>Some of the trainings will target specifically community outreach related topics , and addressing illegal activities "<i>Interaction with local communities</i>" (<i>opportunities for engaging local population in biodiversity conservation, joint patrolling of territories, protection of key sites</i>)-<i>Output 3.2.2</i>. The training will include a specific module for rangers, on Local Communities and Cultures, in order to strengthen understanding on community rights and needs; respect to human rights and empowering communities to manage and protect wildlife and critical habitats.</p> <p>Furthermore, the project will facilitate regular meetings between PA managers, ranger patrol</p>	Project Manager and PMU Staff UNDP Administrative/Financial Associate

				staff, communities, inspectorates, border security in or in the proximity of the core areas to analyse trends in monitoring and legal compliance, aiming at addressing ongoing threats in a collaborative manner, including issues related to cross-border migration of wildlife (Output 3.2.2).	
10	<p>(SESP)</p> <p>Risk 10: Government resource management authorities may not have the capacity to fulfill all aspects of their mandate, and rural resource users may not have the capacity to claim their rights, which could potentially lead to the violation of human rights.</p> <p>SES Principle 2 Human Rights, P2 SES Principle 2 Human Rights, P3</p>	Environmental Social	I = 3 L = 3	<p>The risks will be managed through Trainings/capacity building project activities (Output 4.1.1) as well as targeted trainings for local natural resources users (embedded under Output 3.2.3). The project will be working closely with all stakeholders to support government natural resource management authorities and institutions to meet their obligations, and with resource user rights holders to claim their rights.</p> <p>As with the previous risks, the project will be working closely with all stakeholders to support government natural resource management authorities and institutions to meet their obligations, and with resource user rights holders to claim their rights. This will be accomplished through multiple stakeholder consultation sessions during all relevant aspects of the project to ensure that all parties are aware of and understand the relevant obligations and rights.</p>	Project Manager and PMU Staff UNDP Administrative/Financial Associate
11	<p>(SESP)</p> <p>Risk 11: The expected project impacts on the conservation of endangered and threatened species, restoration of degraded land, and sustainable management of forest and pasture resources could be sensitive to changing climatic conditions in the future.</p> <p>SES Standard 2 Climate Change Vulnerability, 2.2 SES Standard 2 Climate Change Vulnerability, 2.4</p>	Environmental Social	I=3 L=2	<p>The management measures will be implemented through the project's activities. The various project's assessments will be informed by the existing climate risk profile/studies (elaborated within the framework of other projects) and through the project's own land/water and climate risk assessments (Output 1.1.).</p> <p>Initial climate related risks assessments will also be considered in the implementation of all the envisaged plans and SLM measures, included among the project activities.</p> <p>Attention to the current and potential impacts of climate change has been built-in to all aspects of the project. The project work will link the provision of adequate supply of water to lakes, wetlands and riparian zones to "water saving agriculture"</p>	Project Manager and PMU Staff UNDP Administrative/Financial Associate

				<p>measures, aligned with the prevent-reduce-restore LDN philosophy.</p> <p>A large a multidisciplinary team of specialists will ensure that the partners and stakeholders will apply the best available climate change forecasts data for Uzbekistan’s lower Amu Darya basin, and will ensure that all project activities and plans take potential future climate impacts into consideration.</p> <p>The project will calculate the minimum ecological flow needed for the survival of the last remaining wetlands of Amudarya delta taking into account the predicted climate induced water deficits. This will provide scientific based evidence for adequate policy and institutional provisions for sustainable management of maximum and minimum ecological flows to lakes, wetlands, and riparian zones. (Output 2.1)</p> <p>The hydroclimatic modeling (under Output 1.1) and water use trend analysis will provide scientific evidence for the revised irrigation norms that accounts for climate change (Output 1.2). The project supported Integrated Water use and Climate Resilient Plans (Output 1.2) are developed based on the latest climate data. The development of the Integrated LDN compatible Land Use Plans (Output 2.2) will adhere to the LDN principles, and will by default, embed climate resilience measures.</p> <p>The awareness raising activities will include information on climate risk insurance models for farmers (Output 4.1).</p> <p>The project will support species and habitat inventories and will identify potential gaps in the existing system of PAs in order to effectively conserve biodiversity, considering the potential for ecosystem change and ecological shifts due to climate change impacts (Output 3.1). As part of the project’s work on strengthening the management effectiveness of PAs it will also strengthen environmental monitoring capacities in order to better track the future effects of climate change within PAs and the targeted KBAs more broadly. The project’s work to support the minimum ecological flow and increased allocation of water to</p>	
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				<p>lakes and wetlands KBAs/IBAs (Output 1.1.) will be grounded in the best available and most recent climate science relevant for this region of Uzbekistan.</p> <p>Furthermore, the project adheres to LDN Principles and will screen the activities against the LDN Checklist (Annex 28). The ecosystem management benefits will be mostly associated with the resilience of land and water management resources, sustainable management regimes and rationalised and efficient use of water resources for improved management of land and forests.</p>	
12	<p>Risk 12: Project activities involving local/field interventions and close engagement with local communities may inadvertently contribute to the spread of COVID-19.</p> <p>Standard 3 Community Health, Safety and Security, 3.4</p>	Environmental Social	I=3 L=2	<p>The risk will be mitigated through adequate safeguards such as: (i) clear procedures in place in case of COVID19 reinstatement of restrictions, approved during project inception (ii) use of protective equipment, maintaining social distancing and using remote methods of engagement whenever possible (iii) if adequate safeguards cannot be put in place, activities that entail close local communities engagement will be put on hold if necessary, and work programme/budget will be revised as needed. wherever possible on-line meeting platforms will be used and travel decreased. All project meetings will be organized mindful of government regulations and healthy standards and other appropriate safeguards (including those of UNDS).</p>	Project Manager and PMU Staff UNDP Administrative/Financial Associate
13	<p>(SESP)</p> <p>Risk 13: The project may inadvertently contribute to potential perpetuation of discriminations against women. There are lingering disparities between men and women, particularly in rural areas and in the patriarchal cultures of some of the ethnic minority communities, which could be inadvertently replicated.</p> <p><i>SES Principle 3, Gender, P10</i></p>	Social	I=3 L=2	<p>The management of this risk will be done through the implementation of the Gender Action Plan (GAP) and will be monitored by the project specialized experts.</p> <p>The project design has consistently mainstreamed gender sensitive approaches and has created opportunities for tackling women's needs, ranging from designing tailored training activities to organizing dedicated segments of radio programmes for women farmers. The project will provide ample opportunities for women to learn about LDN and SLM measures and resilient livelihoods and integrate best practices into their farm practices. Though the training programs and Farmer Field Schools, women will also be able to</p>	Project Manager and PMU Staff UNDP Administrative/Financial Associate

				<p>access the capacity building and training required to practice climate-resilient agriculture, as well as to diversify their livelihoods in more resilient ways. The project will ensure gender balance in all project activities (e.g. seminars, community level events) including in the membership of different decision-making bodies (Working groups; Project Boards; Evaluation Committees) including access to project financial assistance (grant scheme). Gender considerations will inform any community level vulnerability analysis linked to local infrastructure or demonstration plot development through consultation regarding needs and preferences on types of training and investment. The project will also gather gender-disaggregated data for evaluation purposes and use gender sensitive indicators (particularly around beneficiaries) to facilitate planning, implementation and monitoring. Complaints will be addressed through the project level Grievance redress mechanism.</p>	
14	<p>(SESP) Risk 14 The project may fail to ensure that labor rights, especially of vulnerable groups, are respected by local subcontractors. There could be risk of forced child labor at project sites.</p> <p><i>SES Standard 7; 7.1</i> <i>SES Standard 7; 7.3</i></p>	Social	I=3 L=2	<p>The management measures will be devised on case by case basis. The project will ensure that national working standards (Labor Code) are respected for all the project activities. The requirements of this Standard are to be applied in an appropriately-scaled manner based on the nature and scale of the project, its specific activities, the project's associated social and environmental risks and impacts, and the type of contractual relationships with project workers.</p>	Project Manager and PMU Staff UNDP Administrative/Financial Associate
15	<p>SESP Risk 15. Expansion of PAs system and/or improved zoning could lead to risk to endangered species.</p> <p>SES Standard 1 Biodiversity and NRM, 1.1 SES Standard 1 Biodiversity and NRM, 1.2 SES Standard 1 Biodiversity and NRM, 1.6 SES Standard 1 Biodiversity and NRM, 1.7 SES Standard 1 Biodiversity and NRM, 1.8 SES Standard 1 Biodiversity and NRM 1.4</p>	Environmental	I=3 L=3	<p>Project activities will be carefully planned in consultation with relevant experts and local communities (Output 3.1.2).</p> <p>The project experts will analyse available baseline, and will build on the knowledge generated by other donor implemented projects (e.g. GIZ project “ Mapping natural resources along Amudarya banks in Uzbekistan and Turkmenistan”) and will develop and analyse scenarios for optimal number of species in the core areas and will support the delineation of a feeding corridor that could expand the current core zones and subsequent</p>	Project Manager and PMU Staff UNDP Administrative/Financial Associate

				<p>amendments to PA management and monitoring program.</p> <p>The project will explore opportunities to establish collaboration agreements between Lower Amudarya Biosphere Reserve and research organizations to study dynamics of restoration of vegetation and wildlife, within the context of the reserve. At the same time, the project will conduct</p>	
16	<p>COVID 19 related risks to the project implementation:</p> <p>Project delays due to COVID 19 reinstated restrictions</p>	<p>Financial Operational Organizational</p>	<p>The project implementation may be affected by delays, as was the case with other projects, affected by the restrictive measures implemented since the COVID-19 outbreak</p> <p>I=3 L=3</p>	<p>During the Inception Phase, the project will develop a COVID-19 Strategy and agree on the measures to mitigate any implementation delays that may result due to potential reinstatement of the COVID-19 related restrictions. UNDP issued corporate guidance on “Managing programmes and projects in the age of COVID-19”. These guidelines may be included in the Project COVID-19 Response Strategy. This Strategy will be presented and approved at Inception Workshop along with the main health safeguards that will be implemented during the implementation to protect people and environment and prevent the virus spread (i.e. use of masks, social distancing, remote meetings whenever possible; remote field monitoring as much as possible). The risk to the project posed by potential reinstatement of restrictions (travel; lockdown, others) will be mitigated through several steps that could include (but will be not limited to) :</p> <p>(i) Re-assessment of the COVID-19 restrictions on the AWP implementation (ii) Create/activate stakeholders and key project partners Telegram/Zoom group and move all the meetings online (iii) if activities will be delayed a few months but workplan will deliver on time and within budget, no formal revision is needed (iv) if activities cannot be completed on time, workplan will be revisited and budgets revised/ clearance by online Board meetings (v) if local activities and local field staff can continue activities, monitoring will be done remotely (using photos from the field) or through a virtual mechanisms (project will reach out to community leaders and key partners in the field who can ensure that activities will be aligned with the needs and take into account the constraints faced by the community. The project</p>	<p>IP UNDP CO Project manager PMU staff Administrative/Financial Associate</p>

				will ensure that adequate protective gear is handed over to local field staff and community members and that social distancing and other health safeguards are in place. UNDP TRAC unspent balance can be repurposed to COVID-19 in case of <i>force majeure</i> .	
17	The Implementing Partner has no previous experience with UNDP project and programming rules and procedures and this may pose a risk to project implementation e.g. limitations of the IP's institutional mandate; project implementation delays; ineligible expenditures; lack of timely reporting.	Financial Operational Organizational	I=3 L=3	<p>HACT micro-assessment showed that the IP has no former experience with UN/UNDP or other donor related projects. Although the core capacities of Implementing Partner are sound, the human resources are limited (enabling environment and technical capacity).</p> <p>Several risks related to the internal control framework have been brought to the front by the HACT micro assessment although the overall risk remain in the Low category.</p> <p>The risk management measures will include the following: (i) During the Inception phase, discussions among UNDP and IP will bring any additional clarity (as needed) to the NIM implementation arrangements re-assessing any risks of IP's institutional capacity limitations and implementing appropriate mitigation actions. (ii) The RP will be engaged following NIM rules; (iii) The project staff will be recruited. UNDP will hire an Administrative/Financial Programme Associate paid from TRAC funds, to support the PMU primarily with financial reporting, M&E, NIM rules and procedures. (iv) A number of internal trainings will be organized by UNDP Country Office starting with the Inception Phase in order to help the project personnel get familiar with UNDP/GEF requirements, NIM procedures, project management, procurement, payments, financial reporting M&E, contract management. These trainings will be organized as necessary during the project implementation especially in the first two years. Aiming at capacitating the IP (State Committee on Ecology and Environmental protection) and the PMU to implement the GEF/UNDP project aligned with the International Public Sector Accounting Standards (IPSAS). (v) Constant coaching and pro-actively sharing of good practices (learning-by-doing) will be deployed as needed in order to mitigate potential risks of non-</p>	IP Head RR UNDP DRR UNDP Programme Specialists/ UNDP CO staff UNDP GEF RTA Project Manager M&E consultant

				alignment with UNDP and GEF procedures. (vi) An important mitigation measure is to regularly engage UNDP senior management in Strategic Risk Meetings to discuss and evaluate operational and political risks, especially important considering the novelty of full NIM approach and the multi-focal area type of the project.	
18	Limited cooperation among government agencies with mandate for water management and biodiversity conservation limits the delivery of results under Component 1. There is a risk that the project expectations regarding the inter-institutional cooperation and agreements for reconciliation of water distribution among different sectors are over-ambitious.	Political/Organizational	I=3 L=3	<p>The risk will be managed by continuous monitoring (and re-assessment as needed) of project progress while enlisting the support of high-level decision makers and UNDP senior management.</p> <p>In addition, this risk will be managed through the Stakeholder Engagement Plan, with meaningful engagement, and consultation, as required. The Multi-Stakeholder Water Management Task Force will include the project experts and technical personnel of partner institutions effectively working on the technical assessments. In addition, the project will be strengthened by a Multi-Stakeholder Committee which will include representatives of line ministries, the International Fund for Saving the Aral Sea (IFAS), Amudarya Basin Water Organization (BWO), the relevant Basin Irrigation System Authorities (BISAs): Amu-Bukhara BISA; the Left-bank Amudarya BISA and Nukus Hydro unit (Niznedaryinskiy department under BWO Amudarya), water users (WUAs), women farmers representatives, NGOs and academia to coordinate the work and leverage the needed political support.</p> <p>It is expected that the Multi-Stakeholders Committee will be responsible for political back up and support to the project's activities, aiding in securing consensus on water requirements among multiple users.</p> <p>The project builds on the expressed government's interest to reform the water sector and it was designed with the participation and consultation of the Ministry of Water Resources, Ministry of Agriculture and other governmental agencies.</p> <p>The project will further mitigate this risk, by raising awareness and understanding about the climate change vulnerability, predicted climate induced water deficits and the devastating consequences</p>	RR UNDP DRR UNDP Programme Specialists/ UNDP CO staff IP Head Project Manager PMU

				that this will have on the lakes wetlands and riparian zones in the Amudarya lower reaches.	
19	The general level of awareness and understanding of land degradation issues in the region is not sufficient.	Environmental Financial Operational Organizational Political Regulatory Strategic Other	I=3 L=3	Ample education and awareness events will target decision makers at the local and national levels, as well as local natural resource users, in order to raise their awareness and technical knowledge about the key biodiversity values and regulations, and the sustainable land management (SLM) measures ecological and economic benefits.	Project Manager and PMU Staff UNDP Administrative/Financial Associate Communication Specialist
20	With no significant changes in the agricultural and land use baseline, the project effort towards biodiversity conservation in the lake, wetland and riparian complexes might have a relatively negligible impact.	Organizational Political	I=4 L=3	<p>The project will enlist the support of senior UN/UNDP management to facilitate high level national dialogue in order to mobilize resources and secure political support that are necessary for the full achievement of the project outcomes and objective. This risk will be further managed through the Stakeholder Engagement Plan and management measures will be developed with full, meaningful engagement, and consultation.</p> <p>Furthermore, a set of organizational, technological and agrotechnical measures will be adopted by the project, including the creation of multi-stakeholders mechanisms for landscape planning and management in order to strengthen the community and local stakeholders' involvement.</p> <p>A set of manuals and guidelines will be developed and institutionalised for integrated land use planning, sustainable pastures and forest management to achieve LDN expected to lead to a change in how land resources are managed. The project will work together with FAO/GEF LDN Project in order to link regional LDN measures to national LDN platform and action plans (to be set up by FAO project). The project design has incorporated lessons learnt from GEF programming as well as other development interventions especially in designing agriculture practices in a way that they will lead to a direct visible and measurable decrease of the pressure on natural resources.</p> <p>The project will focus on solving the trade-off between socio-economic goals and environmental goals and builds on the current on-going agricultural reforms. Acknowledging that the project does not have the means for big investments needed for some large-scale measures</p>	RR UNDP DRR UNDP Programme Specialists/ UNDP CO staff IP Head Project Manager PMU

				in agriculture sector, it will follow a more focused approach, aligning already tested, successful measures and best practices with existing governmental and non-governmental programmes, with potential for scaling up and replicability.	
21	There is a risk that the expected co-financing of the government partners for SLM measures will not materialize	Financial Operational Organizational Political	I=3 L=3	This risk will be mitigated through continuous monitoring by the Project manager and will be addressed through enlisting support of high level decision makers in the government partner institutions, with the support of UNDP RR/DRR and IP Head. In addition, during the inception period, the UNDP CO and IP will re-confirm the partnerships and co-financing as well as the targeted areas selected for demonstration activities (SLM). UNDP RR/DRR will support engagement with high level decision makers in Ministry of Agriculture and State Committee on Forestry.	RR UNDP DRR UNDP Programme Specialists/ UNDP CO staff IP Head Project Manager PMU
22	RISK SCREENED IN THE PROJECT'S AREA OF INFLUENCE The presence of a cement factory in the project's area of influence (near the core area of the Amudarya Biosphere Reserve) could negatively affect project's activities.	Operational	I=3 L=3	The current PAs zoning and the anthropogenic activity that has potential detrimental environmental impact will be analyzed. An assessment of the operations of the cement factory that is located in the proximity of the core zone will be conducted and necessary regulatory measures and/or potential improved delineation of core area on the ground will be enforced/applied.	Project Manager PMU

The project will be part of a number of initiatives that are supporting the country's transition towards a green economy (approved by the Resolution of the President of the Republic of Uzbekistan dated 04.10.2019 No PP-4477) and of initiatives that are particularly relevant for the post COVID-19 green recovery efforts. The Resolution was adopted primarily to ensure the fulfilment of the obligations under the Paris Agreement on climate change signed by Uzbekistan on April 19, 2017. The Resolution highlights the main objectives of Uzbekistan's transition to a green economy and includes: improvements in energy efficiency, rational use of natural resources, "greening" the public investments and expenditures, as well as support to pilot initiatives that will pave the way towards green economy. According to the Resolution, by 2030 Uzbekistan aims, *inter alia*, at: (i) reduction of GHG emission per unit of GDP by 10% compared to 2010 levels; (ii) a twofold increase of energy efficiency indicators and a decrease in the carbon intensity of GDP; (iii) increase of renewable energy sources share up to 25% of the total volume of electricity generation; (iv) introduction of drip irrigation technology on 1 million hectares and increasing the surface of crops under efficient irrigation by 20-40%; (v) achieving Land Degradation Neutrality ; (vi) increasing agricultural productivity by 20-25%. Supporting the transition to a green economy and the country's post-COVID 19 green recovery is assisted by international development agencies. The European Union in particular plans to enhance the support to green recovery by putting green growth at the center of the next EU Cooperation programme for the period 2021-2027. Renewable energy, sustainable agri-food sector and green investments will be among the key themes constituting the programme. In addition, this UNDP/GEF project is part of UNDP's approach to supporting the country's green recovery in three main directions: (i) accelerating transition towards the use of clean renewable energy (ii) support to reorienting business and finances towards green investment and policies that are promoting green jobs and (iii) support to sustainable agricultural practices and facilitation of innovative "climate smart" knowledge in agriculture sector, in partnership with the European Union.

Annex 8. Overview of Technical consultancies and main project staff positions

Consultant (estimated consultancy fee)	Estimated duration	Brief account of the proposed Tasks/Outputs
Project Management, M&E and cross-cutting Technical Assistance		
Local / National contracting		
Project Manager Rate: \$1,500/month	60 months / over 5 years	Tasks: overall management of the project, including the mobilization of all project inputs, supervision over project staff, consultants and sub-contractors. Leads the PMU and responsible for the day-to-day management of project activities and the delivery of its outputs. Supports the Project Board and coordinate the activities of all partners, staff, and consultants as they relate to the implementation of the project. Develops annual work plans and budget; ToR and action plan of the staff and monitoring reports; quarterly reports and financial reports on the consultant's activities, all stakeholders' work, and progress; yearly PIRs/AWP; adaptive management of project. Monitors Results Framework's indicators and targets and take corrective/adaptive actions as needed. Technical inputs: (i) Support to the development of the methodologies on water use assessments (Output 1.1.); (ii) Inputs into methodologies for pastures inventory and assessment of pasture degradation (Output 2.3) (iii) Technical inputs into various Guidelines and Manuals developed under Output 2.3, 2.4, 2.5 (iv) Technical inputs to the draft PA Management Plans (Output 3.1.1) (v) Inputs to the draft training materials (Output 4.1) (vi) <i>Water diplomacy seminars</i> : presentations and inputs into the Manual/Guidelines (Output 4.1) Ensures implementation of SESP requirements, SESA/ESIA.
Project Financial and Administrative Assistant Rate: 728.91/month	60 months / over 5 years	Tasks: financial and administrative management of the project activities and assist in the preparation of quarterly and annual work plans and progress reports for review and monitoring by UNDP. See the full TOR in Annex D for details. Assist in: Planning, preparation, revisions, and budget execution documents; contracts of national / local consultants and all project staff, in accordance with UNDP procedures and observing national legislation requirements; quarterly and yearly project progress reports concerning financial issues.
Project Procurement Assistant/Associate \$728.91/month	60 months / over 5 years	Tasks: Support the development of TORs and conduct all the procurement and contracting under the project, including: advertising and invitation for tendering; organizing bidding meetings; tender openings; selection panels; writing minutes; participate in selection panels and facilitate evaluation of bids/offers/applications; ensure that all supportive documents related to the project procurement/contracting that are submitted for the Project Manager's approval, are prepared according to the AWP and NIM rules and regulations and aligned with the government procurement rules and regulations;
UNDP Programme Financial Assistant/Associate Rate: \$1633,33/month	60 months / over 5 years	Tasks: Provide advice to the project administrative and financial support to project staff with regard to UNDP/NIM rules and procedures and developing correct and rigorously detailed quarterly financial reports to be submitted to UNDP. Supports ATLAS Risk Register updates and monitoring of risks. Supports Task Leaders and Project Manager monitor Results Framework indicators and GEB.
Gender Expert Rate: \$80/day	100 days/over 5 years	Tasks: monitoring of gender mainstreaming, including the implementation of the Gender Action Plan, supports targeted assessments and Process Framework (concerning gender aspects). Provides documentation of gender mainstreaming and assessment of indicators as established in the Gender Action Plan.
Technical assistance (across components) and M&E		
National M&E Expert Rate: \$80/day	20 days / over 2 months (year 3)	Tasks: conduct the mid-term project review jointly with the International M&E Expert and following UNDP and GEF guidelines. Key Deliverables: mid-term project review report.
National M&E Expert Rate: \$80/day	25 days / over 3 months (year 5)	Tasks: conduct the terminal project evaluation jointly with the International M&E Expert and following UNDP and GEF guidelines. Key Deliverables: terminal project evaluation report.

Field coordinator (4) Rate: \$1000/month	60 months/over 5 years	Tasks: Working in coordination with Task Leaders, the Field Coordinator is responsible for supporting implementation of activities in the targeted district assigned to him/her, to deliver the project's outputs at local level. Provides technical guidance to project experts and facilitates project inception workshops, liaison with local stakeholders supports trainings and awareness sessions, supports field missions and supports monitoring project results derived from the implementation of various demonstrative measures. Monitors Results Framework's indicators (supported by specialized experts) and targets related to GEB expected from the implementation of local demonstration activities. Ensures the implementation of risk management measures and continuous risk monitoring, supports development of SESA and ensures implementation of ESMF and ESMP related to risk management measures, concerning risks from the water and land use planning, demonstration of efficient natural resources management measures at project sites(Annex 6, SESP). Ensures SESP updates and revisions of risk categorizations as needed.
Task Leader (4) Rate \$1200/month	60 months/over 5 years	Tasks: Working with the Field Coordinators, the Task Leader is responsible for assigned Project Component and of the implementation of activities in support of the technical outputs and outcomes under the respective component. Support the peer reviews of various technical reports and provides technical inputs and recommendations, as relevant. The background and qualifications of the Task Leaders will be relevant to the assigned project components (e.g. the Task Leader Component 1 will have a strong water management/ water engineering background; similarly, the Task Leader for Component 2 will have relevant qualifications such as masters in regional planning/ bachelor's degree in environmental science; the Task Leader for the Component 3 will have qualifications and experience in natural sciences and conservation and experience with protected areas management; The Task Leader for Component 4 will have relevant qualification and experience in communication and experience with donor funded communication projects). Monitors Results Framework's indicators and targets and take corrective/adaptive actions as needed. Ensures the implementation of risk management measures and continuous risk monitoring, supports development of SESA and ensures implementation of ESMF and ESMP related to risk management measures, concerning risks from the water and land use planning, demonstration of efficient natural resources management measures at project sites(Annex 6, SESP). Supports SESP updates/revisions of risk categorization as needed.
GIS specialist Rate: 1,500/month	36 months/years 1-3	Tasks: Works with team of experts and Task Leaders and Field Coordinators to support wetlands, lakes and riparian zones mapping (Output 1.1) spatial land use planning (Output 2.2) ; PA mapping (Output 3.1.1); PA zoning (Output 3.1.1/3.1.2).
International contracting		
M&E Expert Rate: \$700/day	30 days / over 2 months (year 3)	Tasks: conduct the mid-term project review jointly with the national M&E Expert and following UNDP and GEF guidelines. Key Deliverables: mid-term project review report; management responses document.
M&E Expert Rate: \$700/day	30 days / over 3 months (year 5)	Tasks: conduct the terminal project evaluation jointly with the national M&E Expert and following UNDP and GEF guidelines. Key Deliverables: terminal project evaluation report; management responses document.
International Technical Advisor Rate: \$750/day	150 days/ over 5 years	Tasks (across components): Provides overall technical strategic advice to the Project and technical backstopping to the Project Manager, Task Leaders, Field Coordinators and team of national and international experts, in support of the realization of the Project Outputs under each component and contributing to the project's adaptative management strategy. Provides strategic technical guidance to the risk monitoring and ensures development of the SESA/ESMF . Writes the Scaling Up and Replication Strategy of the Project (with the support of the other project's specialists)to be presented to the Project Board and during the project's final conferences.
Technical Assistance		
Component 1		
Local / National contracting		
Watershed management expert Rate: \$80/day	100 days/year 1 and 2	Tasks (Output 1.1. Output 4.2.1 Output 4.1.1) : Provide technical support in the mapping and identification of the main water bodies, permanent and intermittent streams, rivers, wetlands, lakes and riparian ecosystems in the Lower Amudarya and Aral Sea Basin (LADAB) landscape, work with other experts and ensure that all the data are analyzed and integrated to ensure that the watershed ecosystems are adequately presented. Based on assessments and reports under Output 1.1, develop a new Concept on water availability in lower reaches of Amudarya, aligned with IWRM principles to be discussed all key stakeholders; support the project's facilitation of multi-stakeholders consultations; provide

		technical inputs into the information materials for various awareness events and technical inputs into water users and water managers training materials. Additional tasks: provide technical inputs into the information materials (Output 4.1.1) and analytical reports (Output 4.2.1) for various awareness events.
Hydrologist (3) Rate: \$80/day	100 days/ year 1 and 2	Tasks (Output 1.1 Output 4.2.1) : Provide information to support mapping of all water bodies in the targeted areas; provide technical analysis of the river runoffs during high water and low water years, develop hydrographs and assess water inflow to Amudarya delta; provide data on area covered by the water basin and identify and describe aquifers and underground water, processing the field data and indicating the depth of water table , analyze data on river flow and on the monthly minimum, mean and maximum recorded flows,hydrological regime variations; estimate the maximum acceptable water level fluctuation in the deltaic lakes, estimate the minimum annual water flow requirement for the lakes and wetland areas; provide a technical assessment of the current water consumption among different sectors (in coordination with other hydrologist experts working on the water use estimation in irrigated areas); in coordination with watershed experts and other experts in the team, estimate the necessary ecological justified and science based water allocation quotas and timing of water releases to cater to multiple water users and maintain the ecological integrity of lakes and wetlands in the Amudarya delta. Additional tasks: Provides technical inputs into analytical reports and awareness materials.
Forestry expert Rate: \$80/day	60 days/year 1	Tasks (Output 1.1) : Provide technical assessment in support of the mapping and identification of the main water depended forest ecosystems in targeted areas, description of the current ecological state; preliminary observations on potential management options for sustainable hydrological regime necessary to sustain riparian forest ecosystems =
Environmental expert (2) Rate: \$80/day	100 days/year 1 and 2	Tasks (Output 1.1 Output 4.2.1 Output 4.1.1) : Provides technical assessment of the wetlands aquatic and terrestrial wildlife fauna in the targeted landscape inside and outside protected Areas, assessing the vulnerability of lakes and wetland ecosystems to unstable hydrological regime, analysis of the existing water exchange, estimates on the acceptable water salinity levels, oxygen content, composition and diversity of wetland and lakes flora and fauna and support the identification of the management options that could enable the necessary water requirements to sustain the ecological integrity of LADAB wetlands ecosystem; Additional tasks: provide technical inputs into the information materials for various awareness events.
Environmental economist (2) Rate: \$80/day	100 days/ Year 1 and 2	Tasks (Output 1.1) : Provide comprehensive assessments of the basic ecosystem services derived from the deltaic lakes and wetlands in Amudarya delta, assessment of benefits for livelihoods and economic sectors. An important part of the assessment studies will consist of the assessment of the tourism potential and practical recommendations and an action plan identifying feasible nature-based tourism potential and recreational facilities (current and future). Additional tasks: provide technical inputs into the information materials for various awareness events.
Ecologist/Fishery expert (2) Rate: \$80/day	100 days/ Year 1 and 2	Tasks (Output 1.1 Output 4.2.1) : Provide an assessment of the existing fishery sector operations in LADAB landscapes, assessment of the exiting fishing licenses and environmental state of the lakes and water bodies used by fishery enterprises; provide technical assessment of the losses in fishery resources due to unstable hydrological regime and provide preliminary recommendations (i) potential hydrological regulation of peak discharge that could reduce loses in the fishery resources (ii) minimum ecological flow needed to sustain and maintain fish larvae and aquatic biomass. Additional tasks: provides technical inputs into the analytical reports and information materials for various awareness events.
Expert on water management in the Irrigation sector (2) Rate: \$80/day	100 days/ Year 1 and 2	Tasks (output 1.1): Support mapping and description of existing irrigated areas; provide an assessment of the science-based irrigation norms and their enforcement, provide a technical assessment of the water consumption in the irrigated areas (current and forecasted) and preliminary recommendations for water saving measures and potential trade-offs among different water users. This work will be coordinated with the work of irrigation experts/crop specialists under Output 1.2.
Institutional development expert (water sector) Rate: \$80/day	40 days/ Year 2	Tasks (Output 1.1.) : Recommend institutional measures necessary to incorporate ecological flow requirements into current water management and mainstreaming of water monitoring indicators (developed by the water engineer/water monitoring expert) into the current institutional setup; the institutional development expert will further develop the draft Inter-institutional agreements between State Ecological Committee and Ecology and Ministry of Water Resources, in order to establish an appropriate water supply regime for

		the whole area and ensure the adequate environmental releases of water to prevent desiccation of water bodies, in the lower reaches of Amudarya delta.
Water engineer/ monitoring expert Rate: \$80/day	40 days/ year 2	Tasks (Output 1.1): Develop indicators for monitoring and assessment of adequate water allocation quotas among multiple water users, the necessary water ecological flow and timing of water releases in the Amudarya delta ecosystems.
Legal expert Rate: \$80/day	30 days/ year 2	Tasks (Output 1.1) : Develop recommendations and regulatory amendments to the existing legislation and relevant draft bylaws under the new Water Code to provide for a new effective mechanism that will ensure the necessary ecological flow to the Amudarya delta natural ecosystems; facilitate legal amendments submission for formal approval, with the involvement of Legislative Chamber of Oliy Majlis (Paliament).
Irrigation and crop water requirements experts (5) Rate \$ 80/day	120 days/ year 1 and 2	Tasks (Output 1.2) : Assess the existing irrigation norms and their enforcement (the current water use practices) , volumes and timing of irrigation in the 4 targeted districts, existing water plans for irrigated agriculture and develop assessment report and recommendations for improving water use efficiency, optimising irrigation requirements and timing. Develop science-based irrigation requirements and timing of water releases, considering the predicted climate induced water deficits; assess soil condition (in coordination with the Land reclamation expert, LDN expert and other project experts) in the 4 targeted districts and 3 provinces. Support the design of sustainable farming measures including crop rotation and intercropping, fertilizers application, considering soil salinization, water needs for soil leaching, improvement of irrigation systems and implementation of water saving technologies.
Land reclamation expert (3) Rate \$ 80/day	50 days/ year 1	Tasks (Output 1.2) : Work with the Ministry of Water Resources ameliorative expeditions to collect and analyse data on the current condition of the collector drainage network, assessment of land degradation degree and trends, soil productivity and degree of soil salinization on irrigated lands in the 3 target provinces; provide technical assessment and recommendations for improving soil productivity in irrigated areas and reduce soil salinization, improve condition of collector drainage in the irrigated areas in the 3 provinces.
Local LDN/land use expert Rate \$ 80/day	30 days/year 2	Tasks (Output 1.2) : Work with the Land Reclamation Expert and Irrigation/Crop water requirements experts to assess land degradation degrees and rates, advice on the LDN hierarchy and design LDN compatible sustainable farming measures including crop rotation and intercropping, fertilizers application, taking into account soil salinization ,water needs for soil leaching, improvement of irrigation systems and implementation of water saving technologies, to achieve land degradation neutrality.
Hydrologists/hydraulic engineer (3) Rate \$ 80/day	50 days/ years 2-3	Tasks (Output 1.2 and Output 4.2.1) : review the state of hydrotechnical facilities and irrigation network in the LADAB area, conduct field and office studies as necessary, to provide an overall assessment of the current operational conditions, review plans for investments and maintenance works of the hydrotechnical facilities of the Ministry of Water Resources and provide recommendations for investments into improvement and modernization of the hydrotechnical facilities (dams, reservoirs, irrigation system). Additional tasks: Provides technical inputs into analytical reports necessary as background preparation materials for various water management negotiations.
Irrigation/water management experts (8) Rate \$ 80/day	70 days/years 2-5	Tasks (Output 1.2) : Work together with the representatives of the Ministry of Water Resources, BISAs/ISAs, Water Users Associations (WUA) and the other experts to develop the Integrated Water Management Plans in 4 pilot districts based on the assessments and recommendations produced overall under Output 1.2 ; the plans will include monitoring systems and indicators for soil and water use improvement aligned with LD. The experts will remain on retain contracts, to provide ad-hoc technical assistance to project partners in support of the implementation of the Integrated Water Management Plans in the 4 districts (during years 3-5). The four Integrated Water Management Plans will be developed in the second year of the project, will cover the targeted irrigated agricultural land in the 4 districts (112,180 ha) and will account for climate change induced predicted water deficits and will promote land degradation neutrality in the irrigated agricultural land.
Integrated Watershed Management Specialist	70 days/ year 2	Tasks (Output 1.2 Output 4.2.1) : Develops an Integrated Water Management Framework for LADAB landscape based on the assessments and recommendations under Output 1.1. and Output 1.2.The Integrated Water Management Framework will encompass all the four Integrated Sustainable Water Use Management Plans in the four districts (covering 112,180 ha irrigated areas). It will account for climate

Rate \$ 80/day		change induced predicted water deficits, will include provisions for the delivery of the necessary ecological flows for maintaining the lakes and wetlands and riparian zones in Amudarya delta, and will promote land degradation neutrality in the irrigated agricultural land. The Integrated Water Management Framework will include research, data collection and recommendations for 628,100 ha existing irrigated agricultural land in LADAB landscape and 957,260 ha water bodies (including all KBAs/IBAs), wetlands and riparian ecosystems) in Bukhara, Khorezm and Karakalpakstan regions, forming the Lower Amudarya and Aral Sea Basin (LADAB) landscape. Provides recommendations for upscaling the 4-district level water management plans (covering 112,180 ha irrigate agricultural land) to the entire LADAB landscape irrigated areas (including 628,100 ha of irrigated agricultural land). Works with the Integrated Watershed Management Expert (under Output 1.1.) to include the Concept and practical recommendations for adequate water releases to ensure the ecological flow necessary to preserve the water depended ecosystems (developed under Output 1.1) into the Integrated Water Management Framework. Provides technical inputs into manuals for farmers, guidelines and other technical knowledge products to be developed by the project. Additional tasks: Provides technical inputs into analytical reports necessary as background preparation materials for various water management negotiations.
International contracting		
Hydroclimatic modelling expert Rate: \$700/day	30 days/year 1 and 2	Tasks (output 1.1.) : to work with project experts and relevant stakeholders, to provide water allocation analysis and water supply scenarios for irrigated agriculture and biodiversity, in support of the estimation of an optimized water allocation scheme among multiple users familiar; the expert will be familiar with the World Bank agreed BEAM (Whatif) model.
For Technical Assistance Component 2		
Local/national contracting (Output 2.1)		
Land use planning expert/LDN Karakalpakstan (1) Rate \$ 80/day	100 days. Year 1 and 2	Tasks (Output 2.1/ Output 2.2): Provide technical support in the identification and spatial distribution of the main land use types and land cover, and assess trends in land degradation, assist in modelling land use scenarios, define and validate LDN baseline and establish a mechanism for neutrality, targets and monitoring system, provide recommendations for land use decisions to local authorities and provide technical inputs into project's knowledge sharing through the World Overview of Conservation Approaches (WOCAT). Coordinate work with the work of other land use planning experts working in the team under Outputs 2.2-2.5. Support project's multi-stakeholders' engagement during land use planning.
Soil expert (LDN) Rate \$80/day	100 days/ year 1 and 2	Tasks (Output 2.1/Output 2.2) : Assess soil quality and soil organic matter, land degradation and desertification trends, assist in the baseline validation, assessment of trends in soil productivity, setting LDN targets.
Forestry expert (LDN) Rate \$80/day	100 days/ year 1 and 2	Tasks (Output 2.1and Output 2.2.): Assists in LDN baseline validation and LDN target setting. Supports mapping of forest land use type, provides assessment of forest ecosystems condition and changes, assists in modelling land use scenarios and LDN target setting and provides technical inputs into integration of sustainable forest management into land use planning in Karakalpakstan's two districts.
Pasture management expert (LDN) Rate \$80/day (2)	100 days/ year 1 and 2	Tasks (Output 2.1 and Output 2.2): Assists in LDN baseline validation and LDN target setting. Provides assessments of the land productivity, identifies trends in the dynamic of pastures productivity and assists in the assessment of land use type and land cover, analyses different land use scenarios defines and validates LDN baseline and targets for Karakalpakstan, assists in establishing LDN targets for subsets of land use type (e.g. grassland) in the two districts of Karakalpakstan.
Irrigation expert (LDN) Rate \$80/day	50 days/ year 1 and 2	Tasks (Output 2.1): Provide technical support in identification of land use planning in irrigated areas; coordinates with irrigation and LDN experts working under Component 1 and assess current practices in irrigated areas leading to land degradation, analyze trends of land degradation in irrigated agricultural lands and assist in modelling of different LDN compatible land use scenarios in irrigated crop areas, assist in establishing a mechanism for neutrality and monitoring system.

Environmental economist expert Rate \$80/day	50 days/ year 1 and 2	Tasks(Output 2.1) : participates and assists in LDN target setting at regional level, estimating the socio-economic benefits of LDN compatible land use decisions, provides support to knowledge sharing through World Overview of Conservation Approaches WOCAT and other available platforms.
Institutional development (land governance) expert Rate \$80/day	50 days/ year 2	Tasks (Output 2.2) : Support the institutionalization of LDN compatible land use planning and based on the LDN target setting knowledge generated within the project, develop a “How to” Manual, documenting step by step LDN compatible integrated planning with clear recommendations for participatory gender sensitive approaches.
Land use planning expert (4) Rate \$80/day	100 days/ year 1 and 2	Tasks (Output 2.2): Work with the Integrated Spatial and Land Use Planning District Committee (ISLUPDC) and provide technical recommendations and support to develop the integrated LDN compatible land use planning in the targeted districts. Support project’s multi-stakeholders’ engagement during land use planning.
Pasture agronomist (4) Rate \$80/day	150 days/ years 1-5	Tasks (Output 2.2; Output 2.3; Output 2.4): Provides technical support in the identification of pasture resources in the four targeted districts including delineation of the targeted project sites (coordinates work on Karakalpakstan with the Pasture Agronomist working under Output 2.1). Provides analysis of trends in the dynamic of pastures condition, pastureland degradation. Leads the development of the pasture management plans in the targeted area. Provides strategic advice and recommendations for the integration of Sustainable Land Management SLM measures in land use planning; Provides recommendations and drafts proposals to amend existing legal framework in order to introduce subsidies for farmers applying SLM measures; Participates into assessment of SLM Innovation Challenge proposals and supports work on innovative land restoration (Output 2.4). Provides technical guidance to the project team and local field coordination in support of the Pasture Management Plans implementation throughout the project duration.
Agroforestry expert (4) Rate \$80/day	100 days/ years 1-5	Tasks (Output 2.2, Output 2.3, Output 2.5, Output 2.4) : support identification of pasture and forest resources in the targeted areas. Provides advice on the improvement of soil condition in the irrigated and non-irrigated land and on marginal lands through different agroforestry practices; participate into assessment of SLM Innovation Challenge proposals and supports project’s work on innovative land restoration(Output 2.4). Provides strategic advice and recommendations for the integration of Sustainable Land Management SLM measures in land use planning; Provides recommendations and drafts proposals to amend existing legal framework in order to introduce subsidies for farmers applying SLM measures; Provides technical guidance to the project team and local field coordination in support of the implementation of different land restoration measures throughout the project duration.
Botanist Rate \$80/day	100 days/ years 1 and 3 and 5	Tasks (Output 2.3): Conduct pasture flora inventory; support the development of tactical grazing techniques; provides technical support in the SLM measures implementation and assessment of the vegetation recovery.
Forestry expert/Riparian engineering (4) Rate \$80/day	100 days/ years 1-5	Tasks (Output 2.2, Output 2.5): Supports mapping of forestry resources in the targeted districts and integration of sustainable forest management plans into land use planning. Develops integrated sustainable forest management plans in targeted project areas aligned with the Forestry Enterprises’ 10 years strategic planning. Designs riparian forest regeneration methods. Provides technical support in SLM measures implementation and assessment of the forest ecosystems recovery. Provides recommendations and drafts proposals to amend existing legal framework in order to introduce subsidies for farmers applying SLM measures; Provides technical guidance to the project team and local field coordination in support of the implementation of different land restoration measures throughout the project duration.
Water management expert Rate \$80/day	100 days/ years 1 and 3 and 5	Tasks (Output 2.3 Output 2.4 Output 2.5): Provides assessment of the condition of water wells (existing watering infrastructure) in the targeted pasture, forest and degraded areas and supports development of pasture and forest management plans. Supports the assessment of the recovery of pasture/forests/degraded land rehabilitation success derived from the implementation of different Sustainable Land Management (SLM) measures. Participates into the evaluation of SLM innovation proposals under the Innovation Challenge programme and support project’s work on innovative land restoration.

Livestock expert Rate \$80/day	100 days/ years 1, 3 and 5	Tasks (Output 2.3): Conduct assessment of pastures' carrying capacity and provides recommendations for pasture stocking density/stocking rate. Provides recommendations and drafts proposals to amend existing legal framework in order to introduce subsidies for farmers applying SLM measures; Support the assessment of the recovery of pasture/forests/degraded land rehabilitation success derived from the implementation of different Sustainable Land Management (SLM) measures.
Environmental experts/ PAs expert Rate \$80/day	100 days/ years 1 and 2	Tasks (Output 2.2, Output 2.3, Output 2.5, Output 2.4): Provides technical recommendations for integrating biodiversity considerations into land use planning; provides recommendations on pastures and forests management plans and land restoration measures around the PAs/KBAs/IBAs. Advice on opportunities to create ecological corridors for wildlife refuge and feeding.
Environmental economist expert Rate \$ 80/day	100 days/ year 2, 3 and 5	Tasks (Output 2.3, Output 2.4, Output 2.5, Output 4.1): Participates and assist in pastures and forest management plans, and design and implementation of the land restoration techniques, facilitating engagement with local communities and providing technical assessments of the socio-economic benefits of the implementation of the envisaged SLM measures. Provides support to knowledge sharing through World Overview of Conservation Approaches WOCAT and other available platforms.
International contracting (Outputs 2.1-2.5)		
Land Degradation Neutrality Expert Rate \$750/day	100 days/ year 1 and 2	Tasks (Output 2.1, Output 2.2 Output 4.2.2): Although the LDN expert will be providing technical expertise mainly to the project's work within the frameworks of Output 2.1. and Output 2.2. the technical advice will be provided across all outputs. The main tasks are to lead the project's strategy under Output 2.1 and advice on LDN compatible land use planning under Output 2.2. In addition, provides technical support to analysis of land degradation trends in Karakalpakstan and the targeted districts and provide technical recommendations to mainstream LDN targets into land use planning in Karakalpakstn. Support the International Land Use Expert in the development of the LDN Compatible GIS based Land Use Concept ⁶⁴ . Provide technical support in mainstreaming LDN targets in land use planning under Output 2.2. for the districts belonging to Karakalpakstan province in particular. Alongside the international Land Use Planning expert, provide strategic technical advice to the team of experts working on land use planning activities under Outputs 2.2., 3.2.1, 1.2 as well as the project experts working on pastures and forest management plans and land restoration under Outputs 2.3, 2.4, 2.5. Provide technical inputs into information and training materials, explaining the LDN philosophy. Participate to workshops and seminars, deliver presentations to explain what LDN stands for. Coach the team of project experts on LDN matters. Support project's multi-stakeholders' engagement during LDN target setting. Develop the Integrated LDN compatible Land Use Planning Manual and recommendations for the local district authorities in the targeted project areas (in coordination with the International Land Use Planning Expert) Additional tasks: Delivers presentations at education and awareness seminars (Output 4.2.2) and regional LDN workshop.
Land Use Planning Expert Rate \$700/day	100 days/year 1-3	Tasks (Output 2.2): Provide strategic advice and technical input in support of the identification of the land use planning needs at the local level in the pilot districts and determine mechanisms to integrate land use sustainability in the Integrated Land Use Plans, aligned with LDN philosophy. Oversees and provides technical support to different stages of the land use planning under Output 2.2 and leads the development of the LDN compatible Spatial and Land Use Plans at district level in the four districts. Develops the Integrated LDN compatible Land Use Planning Manual and the LDN Compatible GIS based Land Use Concept and recommendations for the local district authorities in the targeted project areas (in coordination with the International LDN Expert) . Together with the International LDN expert, provide strategic guidance to the team of experts working on different outputs under Components 1,2 and 3 (Output 2.1; Output 2.2; Output 1.2; Output 3.2.1; Output 2.3; Output 2.4; Output 2.5). Facilitates project's multi-stakeholders' engagement during land use planning.
Component 3- Local/national contracting (Outputs 3.1.1-3.2.3)		
Land use planning expert Rate \$80/day	60 days/ year 1	Tasks (Output 3.1.1 and Output 3.2.1): Territorial and land use planning experts to work with the State Committee on Ecology and experts working on Integrated Spatial and Land Use Planning (Output 2.2.) to support identification and delineation of the main PAs, and advice

⁶⁴ The LDN compatible GIS based land use concept will include reference to the landscape (natural and cultural), soil, wildlife, biome maps. Each map will include categories of importance (high, medium, low value) along with sensitivity analysis. The land use concept will balance development priorities (economic and social) with conservation objectives in the area given the current status of ecosystems (habitat status, degree of degradation and sensitivity, available ecosystem services).

		on proposed zoning and integration of PAs into wider landscape. Supports project's multi-stakeholders' engagement during land use planning.
Conservation biologist/Botanist Rate \$ 80/ day	60 days/ years 1-2	Tasks (Output 3.1.1 and Output 3.2.1) : Conducts botanical inventories of vascular plants and vegetation assessment in the proposed protected areas, proposes key indicator species and proposed monitoring protocols. Supports PAs zoning decisions.
Conservation biologist/Ornithologist Rate \$ 80/ day	60 days/ years 1-3	Tasks (Output 3.1.1 and Output 3.2.1): Conducts avifauna inventories in the proposed protected areas, establishing key indicator species and monitoring protocols. Supports PAs zoning decisions.
Conservation biologist/Wildlife specialist Rate \$ 80/ day	60 days/ years 1-3	Tasks (Output 3.1.1 and Output 3.2.1): Conducts inventories of mammals, establishing key indicator species and monitoring protocols. Provides technical inputs into calculation of ecological carrying capacity in core areas (includes work on calculating carrying capacities in the existing PAs for example in the Lower Amudarya Biosphere Reserve Output 3.1.2). Supports PAs zoning decisions.
Limnologist Rate \$80/day	60days/ years 1 and 2	Tasks (Output 3.1.1): Works with the limnologist under Output 1.1. to avoid duplication of tasks. Evaluates physical, chemical, biological water quality status in the lakes Sudochoye, Mezdureche Akdarya-Kazakdarya, Akpetki, writes reports and assessments on the water quality providing preliminary observations and potential recommendations to sustain ecological integrity of water ecosystems. Provides recommendations for key water quality biotic and abiotic indicators and monitoring protocols.
Hydrologist Rate \$80/day	30 days/ year 1	Tasks (Output 3.1.1): Coordinates work on lakes and wetlands in the proposed new PAs with the work of the hydrologists under Output 1.1 participates in the estimation of the necessary ecological justified and science-based water allocation quotas and timing of water releases to lakes, wetlands and riparian zones in the targeted project landscape. Supports assessment of wildlife watering infrastructure and provides recommendations (includes work on establishing two new water holes in Saygachy State Refuge under Output 3.1.2). Provides inputs into PAs management plans.
Pasture agronomist Rate \$80/day	30 days/ years 1-3	Tasks (Output 3.1.1 and Output 3.2.1): Provides technical support to identification and delineation of the new proposed Protected Areas and analysis of trends in the dynamic of pastures condition in and around PAs. Provides strategic advice and recommendations for the zoning of the PAs and supports local communities outreach, advising on Sustainable Land Management SLM measures that should be implemented by local communities in the PAs proximity, in production zones. Coordinates work with pasture experts under Output 2.2. Additional tasks: Provides technical inputs into PAs management plans (Output 3.1.2).
Forestry expert/Riparian engineering Rate \$80/day	30 days/ years 1-3	Tasks (Output 3.1.1 Output 3.1.2 Output 3.2.1): Support mapping of the key tugai and turanga forest ecosystems in the new proposed PAs. Provides technical advice on sustainable forest management in and around PAs and recommends riparian forest regeneration strategies, proposes monitoring indicators for the assessment of the forest ecosystems recovery. Provides strategic advice and recommendations for the zoning of the PAs (includes technical inputs into the zoning of the new PAs and establishing a new conservation zone in Kyzylkum Reserve and provides technical recommendations for setting up an ecological corridor). Supports local communities outreach, advising on Sustainable Land Management SLM measures that should be implemented by local communities in the PAs proximity, in production zones.
Socio economic and community outreach expert Rate \$80/day	60 days/years 1-3	Tasks (Output 3.1.1 Output 3.1.2 Output 3.2.2): Supports communication and consultation processes with all affected stakeholder institutions, groups and individuals (local communities) to secure agreement for PA establishment. Coordinates work with other socio-economic and community outreach experts/ environmental economists working on the land use planning under Output 2.2. Works with the Biodiversity experts to identify risks posed by the legal enforcement related to the designation of new PAs and recommends compensatory measures. Develops and delivers Community Outreach training module to PA staff (Output 3.2.2). Works with other experts to support creation of ecological corridors where feasible and facilitates engagement with local communities (Output 3.1.2). Supports the Process Framework in line with SES requirements (Annex 6 SESP)
Biodiversity conservation expert/Protected areas (4) Rate \$80/day	120 days/ years 1-5	Tasks (Output 3.1.1, 3.1.2, Output 3.2.1; Output 3.2.2): Coordinates work with biodiversity expert working under Output 2.2. and supports integration of biodiversity conservation and management into the wider landscape planning (Output 3.2.1), assessing risks to biodiversity posed by agricultural practices, extractive industry, tourism industry and illegal activities and recommends measures mitigate risks. Supports updates of the existing PAs management plans and integrating targeted research and monitoring aligned with PAs management objectives. Supports the Training Needs Assessments (TNA) and provides technical inputs into the development of the PA training

		materials(Output 3.2.2). Works with other experts (Senior PA Management experts and the Environmental economists experts (component 1)) to assess ecotourism potential of the existing and newly proposed PAs under the project scope. Supports the Process Framework in line with SES requirements (Annex 6 SESP)
Senior PA Management Expert (2) Rate \$80/day	30 days/year 3	Tasks (Output 3.1.1): Develops the management and financing plans of the new PAs. An important part of the financial planning will consist of the assessment of the tourism potential and action plan, identifying feasible nature-based tourism potential and recreational facilities (current and future) - as means of additional income for the protected areas and local communities. Supports the Process Framework in line with SES requirements (Annex 6 SESP)
Capacity Development for PAs experts (TNA) Rate \$80/day	30 days/ year 1	Tasks (Output 3.2.2): Conducts Training Needs Assessment
Capacity Development/PAs Expert (4) Rate \$80/day	60 days/year 1-5	Tasks (Output 3.2.2) : Develop the training curricula and deliver the trainings to PA staff (10 trainings) over 5 years.
PAs inspection and patrolling expert (2) Rate \$80/day	30 days/year 1-5	Tasks(Output 3.2.2):. Develops and delivers Training modules to ecological inspectors, PAs rangers, border police and other PA staff. Ensures that training modules on patrolling and law enforcements includes human rights-based approaches and collaborative engagement methods aligned with SES requirements (Annex 6. SESP)
Finance Strategist/Natural Resources Economics Expert Rate: \$80/day	100 days/ year 1-3	Tasks(Output 3.2.3): Oversees the design and implementation of the micro-scheme support for farmers' livelihoods, provides direction/ technical guidance for the implementation of the MoU with the Council of Farmers. Designs financial incentives to support farmers' alternative income , including recommendations for improved market access, and provides technical guidance for the implementation of applicable market-based financial policies. Supports targeted assessments for potential economic displacement aligned with SES requirements and designs compensatory measures.
Pasture agronomist Rate: \$80/day	100 days/year 1-5	Tasks (Output 3.2.3): Identifies and monitors indicators for the assessment of the implementation progress and yielded ecological and socio-economic benefits derived from the SLM measures financed through the Micro-scheme or through other form of project support. Assesses improvement in pastures condition. Provides technical assistance to participating farms. Works with the Local Field Coordinators and Council of Farmers extension service in respective districts.
Agroforestry expert Rate: \$80/day	100 days years 1-5	Tasks (Output 3.2.3): Identifies and monitors indicators for the assessment of the implementation progress and yielded ecological and socio-economic benefits derived from the SLM measures financed through the Micro-scheme or through other form of project support. Assesses improvement in pastures condition. Provides technical assistance to participating farms. Works with the Local Field Coordinators and Council of Farmers extension service in respective districts.
Component 4		
Local / National contracting		
Knowledge Management Consultant Rate: \$80/day	125 days during years 1 and 5	Tasks: Undertake a systematization of the project's generated knowledge (starting with the 3 rd year). Supports the International Technical Advisor to develop the Scaling Up and Replication Strategy of the Project. Supports implementation of the Knowledge Management Plan. Monitors GEF Core Indicators, operating updates and oversee other activities as per the M&E plan. Monitoring of environmental and social risks. Writes periodic documents with Project M&E results, including follow-up and updates related to the Results Framework; Provides UNDP SESP and safeguard monitoring reports. Provides advice to Task Leaders, Field Coordinators and relevant project experts related to the use of monitoring and evaluative knowledge to achieve Outcomes and Outputs. Monitors implementation of the Knowledge Management Plan.
Communication Specialist Rate: \$80/day	200 days/ year 1-5	Tasks (Output 4.1.1/4.1.2): Responsible for the implementation of the communication and awareness activities and the implementation of the Communication Plan. Supports the Task Leader (Component 4) in the implementation of awareness campaigns. The initial estimated

		period of time is 100 days (taking into consideration that the Implementing Partner has a media department that will support the implementation of Component 4). However, the contracting period of the Communication Specialist will be revisited and duration increased as necessary.
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Annex 9: Roles and Responsibilities of project staff

Staff/Consultant Time Input	Tasks, Inputs and Outputs
Local / National contracting	
<p>Project Manager/ Coordinator</p> <p>Rate: \$1,500/month</p> <p>60 months / over 5 years</p>	<p>The PM will be responsible for the overall management of the Project, including the mobilisation of all project inputs, supervision over project staff, consultants and sub-contractors.</p> <p>It is the PM's primary responsibility to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost. The Project Manager will inform the Project Board and the Project Assurance roles of any delays or difficulties as they arise during implementation so that appropriate support and corrective measures can be adopted.</p> <p><u>Duties and Responsibilities</u></p> <ul style="list-style-type: none"> • Manage the overall conduct of the project. • Plan the activities of the project and monitor progress against the approved workplan. • Execute activities by managing personnel, goods and services, training and low-value grants, including drafting terms of reference and work specifications, and overseeing all contractors' work. • Monitor events as determined in the project monitoring plan, and update the plan as required. Monitors indicators and GEB. • Provide support for completion of assessments required by UNDP, spot checks and audits. • Manage requests for the provision of UNDP financial resources through funding advances, direct payments or reimbursement using the FACE form. • Monitor financial resources and accounting to ensure the accuracy and reliability of financial reports. Monitors co-financing and addresses risks. • Monitor progress, watch for plan deviations and make course corrections when needed within project board-agreed tolerances to achieve results. • Ensure that changes are controlled and problems addressed. • Perform regular progress reporting to the project board as agreed with the board, including measures to address challenges and opportunities. • Prepare and submit financial reports to UNDP on a quarterly basis. • Manage and monitor the project risks – including social and environmental risks – initially identified and 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 risks log; • Capture lessons learned during project implementation. • Prepare revisions to the multi-year workplan, as needed, as well as annual and quarterly plans if required. • Provides technical inputs and edits into project technical reports and assessments. • Prepare the inception report no later than one month after the inception workshop. • Ensure that the indicators included in the project results framework are monitored annually in advance of the GEF PIR submission deadline so that progress can be reported in the GEF PIR. • Prepare the GEF PIR; • Assess major and minor amendments to the project within the parameters set by UNDP-GEF; • Monitor implementation plans including the gender action plan, stakeholder engagement plan, and any environmental and social management plans; • Monitor and track progress against the GEF Core indicators. • Support the Mid-term review and Terminal Evaluation process. <p><u>Qualifications required:</u></p>

Staff/Consultant Time Input	Tasks, Inputs and Outputs
	<ul style="list-style-type: none"> • A university degree (MSc or PhD) in a subject related to natural resource management or environmental sciences or Sustainable Land Management (SLM). • At least 10 years of experience in natural resource management • At least 5 years of demonstrable project/programme management experience. • At least 5 years of experience working with ministries, national or local level institutions that are concerned with natural resource and/or environmental management. <p><u>Competencies</u></p> <ul style="list-style-type: none"> • Strong leadership, managerial and coordination skills, with a demonstrated ability to effectively coordinate the implementation of large multi-stakeholder projects, including financial and technical aspects. • Ability to effectively manage technical and administrative teams, work with a wide range of stakeholders across various sectors and at all levels, to develop durable partnerships with collaborating agencies. • Ability to administer budgets, train and work effectively with counterpart staff at all levels and with all groups involved in the project. • Ability to coordinate and supervise multiple Project Implementation Units in their implementation of technical activities in partnership with a variety of subnational stakeholder groups, including community and government. • Strong drafting, presentation and reporting skills. • Strong communication skills, especially in timely and accurate responses to emails. • Strong computer skills, in particular mastery of all applications of the MS Office package and internet search. • Strong knowledge about the political and socio-economic context related to the Indonesian protected area system, biodiversity conservation and law enforcement at national and subnational levels. • Excellent command of English and local languages.
<p>Project Financial and Administrative Assistant</p> <p>Rate: 728.91/month</p> <p>60 months / over years 1-5</p>	<p>Under the guidance and supervision of the Project Manager, the Project Financial and Administrative Assistant will carry out the following tasks:</p> <ul style="list-style-type: none"> • Assist the Project Manager in day-to-day management and oversight of project activities; • Keep records of project funds and expenditures, and ensure all project-related financial documentation are well maintained and readily available when required by the Project Manager; • Review project expenditures and ensure that project funds are used in compliance with the Project Document and national financial rules and procedures; • Validate and certify FACE forms before submission to UNDP; • Provide necessary financial information as and when required for project management decisions; • Provide necessary financial information during project audit(s); • Review annual budgets and project expenditure reports, and notify the Project Manager if there are any discrepancies or issues; • Consolidate financial progress reports submitted by the responsible parties for implementation of project activities; • Liaise and follow up with the responsible parties for implementation of project activities in matters related to project funds and financial progress reports; • Assist the M&E and Safeguards Officer in matters related to M&E and knowledge resources management; • Assist in the preparation of progress reports; • Ensure all project documentation (progress reports, consulting and other technical reports, minutes of meetings, etc.) are properly maintained in hard and electronic copies in an efficient and readily accessible filing system, for when required by the Project Board, UNDP, project consultants and other PMU staff; • Provide PMU-related administrative and logistical assistance. • Assist in the preparation of progress reports;

Staff/Consultant Time Input	Tasks, Inputs and Outputs
	<p><u>Qualifications required:</u></p> <ul style="list-style-type: none"> • A Bachelor’s degree or an advanced diploma in accounting/ financial management; • At least five years of relevant work experience preferably in a project management setting involving multi-lateral/ international funding agency. Previous experience with UN project will be a definite asset; • Proficiency in the use of computer software applications particularly MS Excel; • Excellent language skills in English (writing, speaking and reading). • Very good inter-personal skills; • Proficiency in the use of computer software applications especially MS Word and MS Excel. • Excellent language skills in English (writing, speaking and reading) and in local languages
<p>Project Gender Officer</p> <p>Rate: \$80/day</p> <p>100 days/ over years 1-5</p>	<p>Under the overall supervision and guidance of the Project Manager, the incumbent will have the following specific responsibilities:</p> <ul style="list-style-type: none"> • Monitor progress in implementation of the project Gender Action Plan ensuring that targets are fully met and the reporting requirements are fulfilled; • Oversee/develop/coordinate implementation of all gender-related work; • Review the Gender Action Plan annually, and update and revise corresponding management plans as necessary; • Work with the M&E Project Expert to ensure reporting, monitoring and evaluation fully address the gender issues of the project. <p><u>Qualifications required:</u></p> <ul style="list-style-type: none"> • Master’s degree in gender studies, gender and development, environment, sustainable development or closely related area. • Demonstrated understanding of issues related to gender and sustainable development; at least 5 years of practical working experience in gender mainstreaming, women’s empowerment and sustainable development in Uzbekistan • Proven experience in gender issues in Uzbekistan • Previous experience with UN projects will be a definite asset; • Demonstrated understanding of the links between sustainable development, social and gender issues; • Experience in gender responsive capacity building; • Experience with project development and results-based management methodologies is highly desired/required; • Excellent analytical, writing, advocacy, presentation, and communications skills. • Excellent language skills in English (writing, speaking and reading) and in local languages.
<p>Project Procurement Assistant/Associate</p> <p>Rate:</p> <p>\$728.91 /month</p> <p>60 months / over years 1-5</p>	<p>Under the overall supervision and guidance of the Project Manager, the incumbent will have the following specific responsibilities:</p> <ul style="list-style-type: none"> • Develop Annual Procurement Plans based on the Project’s Annual Work Plans (AWPs); Monitor progress in implementation of the Procurement Plans; • Ensure full compliance of procurement activities with UNDP NIM rules, aligned with government procurement rules and procedures; • Support the development of TORs and conduct all the procurement and contracting under the project, including: advertising and invitation for tendering; organizing bidding meetings; tender openings; selection panels; writing minutes; participate in selection panels and facilitate evaluation of bids/offers/applications; ensure that all supportive documents related to the project procurement/contracting that are submitted for the Project Manager’s approval, are

Staff/Consultant Time Input	Tasks, Inputs and Outputs
	<p>prepared according to the AWP's and NIM rules and regulations and aligned with the government procurement rules and regulations;</p> <ul style="list-style-type: none"> • Management of the contracts, monitoring deliverables and disbursement of payments; • Provide advice to the Financial and Administrative Assistant on document filling system either in paper or electronic form; • Provide advice to the project staff on procurement rules and administrative procedures under the NIM with cash advance transfer modality; • Work with the M&E officer and provide any necessary inputs into monitoring and evaluation; • Support the NIM audit exercise, providing orderly filing and supporting documents for audit purposes; <p><u>Qualifications and experience required:</u></p> <ul style="list-style-type: none"> • Bachelor's Degree in Business Administration, Public Administration, Finance, Economics, Accounting or related field; Additional procurement certification is an asset; • At least 3 years demonstrated experience in procurement and contract management is mandatory; understanding of project management is an asset; • Previous experience in working across units of management of the government agencies or in business sector; • Experience in usage of computers and office software packages (MS Word; Excel etc.); • Good working knowledge of English • Proficiency (writing, speaking and reading) in local languages.
<p>UNDP Programme Finance Assistant</p> <p><i>Rate:</i> \$1633,33/month 60 months / over years 1-5</p>	<p>This is a UNDP hired position. Under the overall supervision and guidance of the UNDP Programme Specialist and in close coordination with the UNDP Programme Associate, the Programme Financial Assistant will have the following responsibilities:</p> <ul style="list-style-type: none"> • Provide advice to the project administrative and financial support staff with regard to UNPD/NIM rules and procedures and support them in developing correct and rigorously detailed quarterly financial reports to be submitted to UNDP; • Support and advice the project manager and administrative/finance staff regarding to the reconciliation of quarterly expenditures, means of verification ensuring accurate reporting; • Provide advice for the maintenance of internal expenditures control system, ensuring that vouchers processed are matched and completed, transactions are correctly recorded; provide advice with regard to budget errors and corrective measures; • Provide advice to the Financial and Administrative Assistant on the presentation of information on the status of financial resources; document filling system either in paper or electronic form; • Provide advice to the project staff on UNDP financial rules under the NIM with cash advance transfer modality; • Provide or facilitate online and in person training for operations/project administrative staff on UNDP NIM financial rules. • Provide accurate verification of the quarterly financial reports, introducing them in ATLAS and maintaining ATLAS; support budget revisions and prepares documentation for cash advance transfers after financial reports clearance; • Provides financial support to AWP record in ATLAS; ensures budgets are correctly reflected in ATLAS; supports any other project related financial operation and records in ATLAS; <p><u>Qualifications and experience required:</u></p> <ul style="list-style-type: none"> • A Bachelor's degree or an advanced diploma in accounting/ financial management;

Staff/Consultant Time Input	Tasks, Inputs and Outputs
	<ul style="list-style-type: none"> • At least five years of relevant work experience preferably in a project management setting involving multi-lateral/ international funding agency. Previous experience with UN project will be a definite asset; • Proficiency in the use of computer software applications particularly MS Excel; • Excellent language skills in English (writing, speaking and reading). • Very good inter-personal skills; • Proficiency in the use of computer software applications especially MS Word and MS Excel.
<p>Project Task Leader (Component Coordinator)</p> <p>4 Posts</p> <p>Rate: 1200 USD/ month</p> <p>Time: 60 months/ over 5 years</p>	<p>Under the overall supervision and guidance of the Project Manager and in close coordination with the International technical Advisor, the Project Task Leader (Component Coordinator) will have the responsibility for leading the outputs under the respective project component, design and plan the implementation of project activities that will be leading to these outputs, provide technical backstopping and monitoring of the realization of these outputs. The main duties and responsibilities of the Task leader (Component Coordinator) are:</p> <ul style="list-style-type: none"> • Participate in the planning, prioritizing and sequencing of the project component activities in close coordination with the Project Team • Develop and update detailed project component implementation plans under the guidance of the Project Manager and International Technical Advisor and in close consultation with the Field Coordinators and other project staff and ensure the implementation of activities related to his/her component; <ul style="list-style-type: none"> • Coordinate and supervise technical inputs relating to component activity design, development and implementation. This will include preparation of TORs and subcontract tender documents and assessment of quality of consultant/contractor outputs; • Prepare and/or edit and supervise preparation of the knowledge management products relevant to the assigned component; • Regularly meet with Field Coordinators located within targeted project sites, project partners, responsible for implementation of component activities to discuss progress on progress and ensure that there is a common understanding of the direction of the project; ; • Under the guidance of the Project manager and International technical Advisor, monitor, review, assess and report on all dimensions of project component activity implementation; • Prepare relevant sections of Annual Work Plan and regular progress reports (including annual APR/PIRs and quarterly progress reports) on project results and outcomes related to his/her component; • Support Project Manager and International technical Advisor in updating the work plans and budget of the project component, as well as tracking the expenditures and delivery rate of the project in relation to his/her component; • Closely work with relevant project component staff in building their capacity in all areas related to the management and regular monitoring of the assigned component; <p><u>Qualifications required:</u></p> <ul style="list-style-type: none"> • University degree in the fields relevant to the specific Project Component (e.g. preferably in the field of water management/ engineering (Component 1), Land degradation (Component 2); Biodiversity / Protected Areas (Component 3); Communication qualification (Component 4) • Relevant experience in project implementation, natural resources management or any other related field; • Previous experience working with donor-supported project either for the UN or other international organization is a strong asset; • Experience in the usage of computers and office software packages (MS Word, Excel, etc.).

Staff/Consultant Time Input	Tasks, Inputs and Outputs
	<ul style="list-style-type: none"> • Strong professional working capacity to use information and communications technology, specifically including website design and desk top publishing software • Understanding of illegal wildlife trade, biodiversity conservation, sustainable livelihoods and associated issues; • Very good inter-personal skills • Excellent language skills in English (writing, speaking and reading) and in local languages
<p>Project Field Coordinators</p> <p>4 Posts</p> <p>Rate: 1000 USD / month</p> <p>Time: 60 months/ over 5 years</p>	<p>Under overall supervision of the Project Manager, a Filed Coordinator (FC) for each targeted districts Alat, Karakul, Amudarya and Moynaq will be locally recruited based on a competitive process. The Field Coordinators will be responsible for coordinating the direct implementation of all field-based project activities in the targeted areas of the planning domain, including the supervision over any field-based local contracted consultants'/service providers and sub-contractors. The four Field Coordinators will report to the Project Manager for all of the project's administrative issues and to the Task Leaders and the International technical Advisor for all the technical issues. In addition, the Field Coordinators will be responsible for assisting the field staff of the responsible state institutions in meeting their field-based obligations under each component.</p> <p>The following duties and responsibilities are envisaged:</p> <ul style="list-style-type: none"> • Supervise and coordinate the work of all field-based project staff, consultants and sub-contractors; • Prepare and revise project work and financial plans; • Liaise with all relevant field-based government agencies, and all project partners, including donor organizations and NGOs for effective coordination of all project activities; • Facilitate technical backstopping to field-based subcontractors and training activities supported by the Project; • Provide inputs into the Combined Project Implementation Review/Annual Project Report (PIR/APR), Technical reports, quarterly financial reports, and other reports as may be required by the PM; • Report progress of project to the PM; • Document all field-based experiences and lessons learned; • Ensure the timely and cost-effective implementation of all outputs under the component; • Assist relevant government agencies and project partners – including donor organizations and NGOs – with development of essential skills through training workshops and on the job, training thereby upgrading their institutional capabilities; • Coordinate and assist expert teams and academic institutions with the initiation and implementation of any field studies and monitoring components of the component; and • Carry out regular, announced and unannounced inspections of all project sites. <p><u>Qualifications required:</u></p> <ul style="list-style-type: none"> • A post-graduate university degree in: conservation management, or equivalent, forestry and/or agricultural management, or equivalent; • At least 5 years of experience in conservation management, forest and/or pasture management and community livelihoods; • Working experience with the project local stakeholder institutions and agencies is highly desired; • Ability to effectively coordinate a diverse range of local stakeholders; • Demonstrable ability to maintain effective communications with different stakeholders, and arrange stakeholder meetings and/or workshops; • Ability to administer budgets, train and work effectively with counterpart staff at all levels and with all local groups involved in the project;

Staff/Consultant Time Input	Tasks, Inputs and Outputs
	<ul style="list-style-type: none"> ● Strong drafting, presentation and reporting skills; ● Strong computer skills, in particular mastery of all applications of the MS Office package and knowledge of GIS software; ● Excellent written and oral communication skills; and ● A good working knowledge of Uzbek is a requirement, while knowledge of English and/or Russian will be an advantage.
International / Regional and global contracting	
<p>Chief Technical Advisor</p> <p>Rate: 750 USD/day</p> <p>150 days/over 5 years</p>	<p>The Chief Technical Advisor (CTA) will be responsible for providing overall strategic advice to the Project Manager and technical backstopping to the Task Leaders, Field Coordinators and team of national and international experts, in support of the realization of the Project Outputs under each component and contributing to the project’s adaptative management strategy. The TA will support the provision of the required technical inputs, reviewing and preparing Terms of Reference and reviewing the outputs of consultants and other sub-contractors.</p> <p><u>Duties and Responsibilities</u></p> <ul style="list-style-type: none"> ● Provide technical support to the Task Leaders, Field Coordinators and Project Manager and other government counterparts in the areas of natural resources management (in the project domains); supports work planning including site activities, monitoring, and impact assessment; ● Support the Project Manager in preparing Terms of Reference for consultants and sub-contractors, ● Supports the peer-review of the technical reports provided by the team of national and international consultants; works with the lead consultants to ensure that the reports include practical recommendations for national counterparts; ● Support the Project Manager in coordinating the work of all consultants and sub-contractors, ensuring the timely delivery of expected outputs, and ensuring an effective synergy among the various sub-contracted activities; ● Assist the Task Leaders and Project Manager in the preparation of the Project Implementation Review/Annual Project Report (PIR/APR), inception report, technical reports, quarterly financial reports for submission to UNDP, the GEF, other donors and Government Departments, as required; ● Assist the Task Leaders and Project Manager in liaison work with project partners, donor organizations, NGOs and other groups to ensure effective coordination of project activities; ● Support the Project Manager in documenting lessons from project implementation and make recommendations to the Steering Committee for more effective implementation and coordination of project activities; ● Writes the Scaling Up and Replication Strategy of the Project (with the support of the other project’s specialists)to be presented to the Project Board and during the project’s final conferences. ● Perform other tasks as may be requested by the National Project Coordinator and Project Manager. <p><u>Qualifications</u></p> <ul style="list-style-type: none"> ● University education (MSc or PhD) in environmental sciences with specific expertise in the area of Sustainable Land Management (SLM); ● At least 15 years of professional experience in natural resource management and rural entrepreneurship/ rural livelihoods; ● Demonstrable experience in implementing equivalent GEF or other multilateral donor-funded projects; ● Effective negotiation skills, with excellent oral and presentation skills;

Staff/Consultant Time Input	Tasks, Inputs and Outputs
	<ul style="list-style-type: none">• A good working knowledge of international best practice in natural resource management planning is desirable;• Excellent writing skills; and• Excellent English skills are required for this assignment; working knowledge of Russian is an asset.

Annex 10: 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
			4,323,629	3,851,929		
Indicator 1.1	Terrestrial protected areas newly created					
Name of Protected Area	WDPA ID	IUCN category	Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
<i>South Ustyurt National Park</i>		II National Park	1,400,000	1,400,000		
<i>Central Kyzhylkum</i>		II National Park	1,100,000	1,000,000		
<i>Sudochye Lakes System State Wildlife Sanctuary</i>		IV Habitat/Species management Area (Refuge)	84,700	84,700		
<i>Akdarya-Kazakhdarya interfleuve</i>		IV Habitat/Species management Area (Refuge)	22,200	22,200		
<i>Akpetki</i>		IV Habitat/Species management Area (Refuge)	587,700	587,700		
			3,194,600	3,094,600		
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
<i>Lower Amu Darya State Biosphere Reserve</i>		Ia Strict Nature Reserve	68,718	63		
<i>Kyzylkum State Reserve</i>		Ia Strict Nature Reserve	10,311	51		
<i>State complex (landscape) nature reserve (refuge) Saigachy</i>		Complex Sanctuary Ib	628,300	68		
<i>Dengizkul State Refuge</i>		IV Habitat/Species	50,000	22		

		management Area (Refuge)						
<i>State Refuge Sudochye</i>		Habitat/Species management Area (Refuge)	50,000			37		
		Sum	807,329 ⁶⁵ 757,329 ha					
Core Indicator 3	Area of land restored						(Hectares)	
			Hectares (3.1+3.2+3.3+3.4)					
			Expected			Achieved		
		PIF stage	Endorsement		MTR	TE		
		1,500	1,500					
Indicator 3.1	Area of degraded agricultural land restored							
			Hectares					
			Expected			Achieved		
		PIF stage	Endorsement		MTR	TE		
		1,500	1,500					
Core Indicator 4	Area of landscapes under improved practices (hectares; excluding protected areas)						(Hectares)	
			Hectares (4.1+4.2+4.3+4.4)					
			Expected			Achieved		
		PIF stage	Endorsement		MTR	TE		
		100,000	212,800					
Indicator 4.3	Area of landscapes under sustainable land management in production systems							
			Hectares					
			Expected			Achieved		
		PIF Stage	Endorsement		MTR	TE		
		90,000	90,000					
			112,800					
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		
		10,000	10,000					
Core Indicator 6	Greenhouse gas emission mitigated						(Metric tons of CO₂e)	

⁶⁵ The project counts only 757,329 ha (without the State Refuge Sudochye of 50,000 ha) in order to avoid the double counting due to overlapping territories of the existing State Refuge Sudochye with the newly created Sudochye Lakes System Wildlife Sanctuary.

		Expected metric tons of CO ₂ e (6.1+6.2)			
		PIF stage	Endorsement	MTR	TE
Expected CO ₂ e (direct)		132,795	132,795		
Expected CO ₂ e (indirect)					
Indicator 6.1	Carbon sequestered or emissions avoided in the AFOLU sector				
		Expected metric tons of CO ₂ e			
		PIF stage	Endorsement	MTR	TE
Expected CO ₂ e (direct)		132,795	132,795		
Expected CO ₂ e (indirect)		0	0		
Anticipated start year of accounting		5	5		
Duration of accounting		15	15		
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		39,000	14,780		
Male		41,000	34,520		
Total		80,000	49,300		

Annex 11: GEF 7 Taxonomy

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

		<input checked="" type="checkbox"/> Indicators to Measure Change	
	<input checked="" type="checkbox"/> Innovation		
	<input checked="" type="checkbox"/> Knowledge and Learning		
		<input checked="" type="checkbox"/> Knowledge Management	
		<input checked="" type="checkbox"/> Innovation	
		<input checked="" type="checkbox"/> Capacity Development	
		<input checked="" type="checkbox"/> Learning	
	<input checked="" type="checkbox"/> Stakeholder Engagement Plan		
<input checked="" type="checkbox"/> Gender Equality	<input checked="" type="checkbox"/> Gender Mainstreaming		
		<input type="checkbox"/> Beneficiaries	
		<input type="checkbox"/> Women groups	
		<input checked="" type="checkbox"/> Sex-disaggregated indicators	
		<input type="checkbox"/> Gender-sensitive indicators	
	<input checked="" type="checkbox"/> Gender results areas		
		<input type="checkbox"/> Access and control over natural resources	
		<input type="checkbox"/> Participation and leadership	
		<input checked="" type="checkbox"/> Access to benefits and services	
		<input checked="" type="checkbox"/> Capacity development	
		<input checked="" type="checkbox"/> Awareness raising	
		<input type="checkbox"/> Knowledge generation	
<input checked="" type="checkbox"/> Focal Areas/Theme	<input type="checkbox"/> Integrated Programs		
		<input type="checkbox"/> Commodity Supply Chains (66 Good Growth Partnership)	
			<input type="checkbox"/> Sustainable Commodities Production
			<input type="checkbox"/> Deforestation-free Sourcing
			<input type="checkbox"/> Financial Screening Tools
			<input type="checkbox"/> High Conservation Value Forests
			<input type="checkbox"/> High Carbon Stocks Forests
			<input type="checkbox"/> Soybean Supply Chain
			<input type="checkbox"/> Oil Palm Supply Chain
			<input type="checkbox"/> Beef Supply Chain
			<input type="checkbox"/> Smallholder Farmers
			<input type="checkbox"/> Adaptive Management
		<input type="checkbox"/> Food Security in Sub-Saharan Africa	
			<input type="checkbox"/> Resilience (climate and shocks)
			<input type="checkbox"/> Sustainable Production Systems
			<input type="checkbox"/> Agroecosystems
			<input type="checkbox"/> Land and Soil Health
			<input type="checkbox"/> Diversified Farming
			<input type="checkbox"/> Integrated Land and Water Management
			<input type="checkbox"/> Smallholder Farming
			<input type="checkbox"/> Small and Medium Enterprises
			<input type="checkbox"/> Crop Genetic Diversity

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

			<input type="checkbox"/> Livestock Wild Relatives
			<input type="checkbox"/> Invasive Alien Species (IAS)
		<input checked="" type="checkbox"/> Biomes	
			<input type="checkbox"/> Mangroves
			<input type="checkbox"/> Coral Reefs
			<input type="checkbox"/> Sea Grasses
			<input checked="" type="checkbox"/> Wetlands
			<input type="checkbox"/> Rivers
			<input checked="" type="checkbox"/> Lakes
			<input type="checkbox"/> Tropical Rain Forests
			<input type="checkbox"/> Tropical Dry Forests
			<input type="checkbox"/> Temperate Forests
			<input type="checkbox"/> Grasslands
			<input type="checkbox"/> Paramo
			<input checked="" type="checkbox"/> Desert
		<input type="checkbox"/> Financial and Accounting	
			<input type="checkbox"/> Payment for Ecosystem Services
			<input type="checkbox"/> Natural Capital Assessment and Accounting
			<input type="checkbox"/> Conservation Trust Funds
			<input type="checkbox"/> Conservation Finance
		<input type="checkbox"/> Supplementary Protocol to the CBD	
			<input type="checkbox"/> Biosafety
			<input type="checkbox"/> Access to Genetic Resources Benefit Sharing
	<input type="checkbox"/> Forests		
		<input type="checkbox"/> Forest and Landscape Restoration	
		<input type="checkbox"/> Forest	<input type="checkbox"/> REDD/REDD+
			<input type="checkbox"/> Amazon
			<input type="checkbox"/> Congo
			<input type="checkbox"/> Drylands
	<input checked="" type="checkbox"/> Land Degradation		
		<input checked="" type="checkbox"/> Sustainable Land Management	
			<input checked="" type="checkbox"/> Restoration and Rehabilitation of Degraded Lands
			<input checked="" type="checkbox"/> Ecosystem Approach
			<input checked="" type="checkbox"/> Integrated and Cross-sectoral approach
			<input type="checkbox"/> Community-Based NRM
			<input checked="" type="checkbox"/> Sustainable Livelihoods
			<input checked="" type="checkbox"/> Income Generating Activities
			<input checked="" type="checkbox"/> Sustainable Agriculture
			<input checked="" type="checkbox"/> Sustainable Pasture Management
			<input checked="" type="checkbox"/> Sustainable Forest/Woodland Management
			<input checked="" type="checkbox"/> Improved Soil and Water Management Techniques
			<input type="checkbox"/> Sustainable Fire Management
			<input type="checkbox"/> Drought Mitigation/Early Warning

		<input checked="" type="checkbox"/> Land Degradation Neutrality	
			<input checked="" type="checkbox"/> Land Productivity
			<input checked="" type="checkbox"/> Land Cover and Land cover change
			<input type="checkbox"/> Carbon stocks above or below ground
		<input type="checkbox"/> Food Security	
	<input type="checkbox"/> International Waters	<input type="checkbox"/> Ship	
		<input type="checkbox"/> Coastal	
		<input type="checkbox"/> Freshwater	
			<input type="checkbox"/> Aquifer
			<input type="checkbox"/> River Basin
			<input type="checkbox"/> Lake Basin
		<input type="checkbox"/> Learning	
		<input type="checkbox"/> Fisheries	
		<input type="checkbox"/> Persistent toxic substances	
		<input type="checkbox"/> SIDS : Small Island Dev States	
		<input type="checkbox"/> Targeted Research	
		<input type="checkbox"/> Pollution	
			<input type="checkbox"/> Persistent toxic substances
			<input type="checkbox"/> Plastics
			<input type="checkbox"/> Nutrient pollution from all sectors except wastewater
			<input type="checkbox"/> Nutrient pollution from Wastewater
		<input type="checkbox"/> Transboundary Diagnostic Analysis and Strategic Action Plan preparation	
		<input type="checkbox"/> Strategic Action Plan Implementation	
		<input type="checkbox"/> Areas Beyond National Jurisdiction	
		<input type="checkbox"/> Large Marine Ecosystems	
		<input type="checkbox"/> Private Sector	
		<input type="checkbox"/> Aquaculture	
		<input type="checkbox"/> Marine Protected Area	
		<input type="checkbox"/> Biomes	
			<input type="checkbox"/> Mangrove
			<input type="checkbox"/> Coral Reefs
			<input type="checkbox"/> Seagrasses
			<input type="checkbox"/> Polar Ecosystems
			<input type="checkbox"/> Constructed Wetlands
	<input type="checkbox"/> Chemicals and Waste	<input type="checkbox"/> Mercury	
		<input type="checkbox"/> Artisanal and Scale Gold Mining	
		<input type="checkbox"/> Coal Fired Power Plants	
		<input type="checkbox"/> Coal Fired Industrial Boilers	
		<input type="checkbox"/> Cement	
		<input type="checkbox"/> Non-Ferrous Metals Production	
		<input type="checkbox"/> Ozone	
		<input type="checkbox"/> Persistent Organic Pollutants	
		<input type="checkbox"/> Unintentional Persistent Organic Pollutants	
		<input type="checkbox"/> Sound Management of chemicals and Waste	
		<input type="checkbox"/> Waste Management	

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

		<input type="checkbox"/> Endogenous technology
		<input type="checkbox"/> Technology Needs Assessment
		<input type="checkbox"/> Adaptation Tech Transfer
	<input type="checkbox"/> United Nations Framework on Climate Change	
		<input type="checkbox"/> Nationally Determined Contribution

Annex 12: GEF PA Management Effectiveness Tacking Tool

Included as a separate attachment

Annex 13: Initial Project Procurement Plan

Procurement/HR	Output	Q1	Q2	Q3	Q4	Estimated budget (USD)
Project management						
Project Manager	All	x				90,000
Technical, Financial and Administrative Assistant	All	x				43,680
Procurement Assistant	All	x				43,680
Financial Assistant (UNDP)						98,000
Driver (UNDP)		x				
Task Leaders (4)	All	x				240,000
Field coordinators (4)	All	x				288,000
GIS specialist	All		x			54000
M&E expert	All			x		10,000
International Technical Advisor (UNDP)	All	x				112,500
Information technology Equipment for PMU (8 PCs; 1 projector);	All		x			10,000
Inception Workshop (1) and Launching events in each district (4)	All	x	x			15,000
Company to provide translation services	All		x			6,000
Procurement of cell phone contracts for PMU	All	x				5,000
Component 1						
Watershed management expert	Output 1.1/Output 1.2	x				8,000
Hydrologist (3)	Output 1.1/Output 1.2	x				24,000
Forestry expert	Output 1.1			x		4,800
Environmental expert (2)	Output 1.1.			x		16,000
Ecologist/Fishery expert (2)	Output 1.1.			x		16,000
Expert on water management in the irrigation sector (2)	Output 1.2		x			16,000
Irrigation and crop water requirements expert (5)	Output 1.2		x			48,000
Land reclamation expert (3)	Output 1.2	x				12,000
International hydroclimatic modelling (UNDP)	Output 1.2				x	21,000
Procurement of dedicated software and networking requirements for Component 1 (external storage units; 2 laptops/desktops; networking support)	Output 1.1				x	4,000
Procurement of geo-referenced satellite imagery and digital aerial photography	Output 1.1				x	10,000
Training workshops/conferences	Output 1.1; Output 1.2	x	x	x	x	11,000
Component 2						
Land use planning expert (LDN)	Output 2.1 (LDN target setting)	x				8,000

Soil expert (LDN)	Output 2.1 (LDN target setting)			x		8,000
Forestry expert (LDN)	Output 2.1 (LDN target setting)			x		8,000
Pasture management experts (LDN)	Output 2.1 (LDN target setting)		x			16,000
Irrigation expert	Output 2.1 (LDN target setting)		x			4,000
Environmental economist	Output 2.1 (LDN target setting)				x	4,000
Land use planning expert (4)	Output 2.2. (Land use plans in targeted districts) Output 2.3 (Pasture management plans) Output 2.4 (Land restoration)	x				32,000
Pasture agronomists (4)	Output 2.3. (Land use plans in targeted districts)		x			48,000
Agroforestry experts (4)	Output 2.3 and 2.4 (Pastures management plans and land restoration)			x		32,000
Botanist	Output 2.3 (Pasture inventory)		x			8,000
Forestry expert/Riparian engineering (4)	Output 2.5 (Forest management plans)		x			32,000
Water management expert	Output 2.3, 2.4, 2.5 (inventory of watering infrastructure in pasture areas)			x		8,000
Livestock expert	Output 2.3		x			8,000
Environmental expert	Output 2.3, 2.4, 2.5			x		8,000
International LDN Technical Expert (UNDP)	Output 2.1	x				75,000
International Integrated Land use Planning (UNDP)	Output 2.2	x				70,000
Procurement of materials and goods (biological materials/seed for nursery)	Output 2.4			x		8,000
Procurement of additional server unit in support of land use related GIS supported data and additional software	Output 2.1 and 2.2.			x		4,000
Training workshops	Output 2.1 Output 2.2. Output 2.3. Output 2.4 Output 2.5		x	x	x	15,000
Component 3						
Land use planning expert	Output 3.1.1 and 3.2.1 (mapping and PAs delineation and zoning)	x				4,800

Conservation biologist/ botanist	Output 3.1.1 and 3.2.1 (mapping and PAs delineation and zoning)		x			4,800
Conservation biologist/Ornithologist	Output 3.1.1 and 3.2.1 (mapping and PAs delineation and zoning)		x			4,800
Conservation biologist/ Wildlife specialist	Output 3.1.1 and 3.2.1 (mapping and PAs delineation and zoning)		x			4,800
Limnologist	Output 3.1.1 and 3.2.1 (mapping and PAs delineation and zoning)		x			4,800
Hydrologist	Output 3.1.1 and 3.2.1 (mapping and PAs delineation and zoning)		x			2,400
Pasture agronomist	Output 3.1.1 and 3.2.1 (mapping and PAs delineation and zoning)		x			2,400
Forestry specialist/ Riparian ecosystems	Output 3.1.1 and 3.2.1 (mapping and PAs delineation and zoning)		x			2,400
Socio economic and community outreach specialist	Output 3.1.1 and 3.2.1			x		4,800
Biodiversity conservation expert PAs (4)	All outputs under Component 3	x				38,480
Capacity development/ PAs Expert (TNA)	Output 3.2.2 (Training)			x		19,200
Capacity Development/ PAs expert (training delivery)	Output 3.2.2				x	19,200
PAs inspection and patrolling expert	Output 3.2.2				x	4,800
Pasture agronomist (Micro-scheme)	Output 3.2.3 (Micro scheme support for farmers livelihoods)			x		8,000
Agroforestry expert (Micro-scheme)	Output 3.2.3 (Micro scheme support for farmers livelihoods)			x		8,000
Finance strategist/ Natural Resources Economics Expert (Micro-scheme)	Output 3.2.3 (Micro scheme support for farmers livelihoods)			x		8,000
Procurement of basic field equipment, office furniture and desktops for existing PAs (GPS	Output 3.2		x	x	x	50,000

devices; binoculars; generators; camera traps; power sources; field uniforms)						
Training workshops	Output 3.1 and Output 3.2			x	x	15,000
Component 4 (activities executed by CAREC)						
Communication Specialist	Output 4.1. and 4.2		x			8,000
Contractual service-Companies (selecting a media/PR company)	Output 4.1 and 4.2			x	x	56,000
Training and awareness events	Output 4.1 and Output 4.2	x	x	x	x	17,000
Procurement of design and printing services	Output 4.1		x	x	x	3,000

Annex 14: Stakeholder Engagement Plan

Stakeholders identification

During the project preparation stage, a stakeholder analysis was undertaken in order to identify key stakeholders, assess their interests in the project and define their roles and responsibilities in the project implementation. The official mandates of key stakeholders are described in Annex 23 Legislative and institutional framework assessment.

Stakeholder Engagement and Participation Approach

Stakeholder engagement will be carried out according to the following principles that have been identified as significant based on UNDP stakeholder engagement guidelines:

Principle	Stakeholder participation will:
Adding Value	Be an essential means of adding value to the project.
Inclusivity	Include all relevant stakeholders.
Accessibility and Access	Be accessible and promote access to the process.
Transparency	Be based on transparency and fair access to information.
Fairness	Ensure that all stakeholders are treated in a fair and unbiased way.
Accountability	Be based on a commitment to accountability by all stakeholders.
Constructive	Seek to manage conflict and promote the public interest.
Redressing	Seek to redress inequity and injustice.
Capacitating	Seek to develop the capacity of all stakeholders.
Needs-Based	Be based on the needs of all stakeholders.
Flexible	Be designed and implemented in a flexible manner.
Rational and Coordinated	Be rationally planned and coordinated, rather than ad hoc.
Excellence	Be subject to ongoing selection and commitment.

Objectives of the Stakeholder Engagement Plan:

- Identify the roles and responsibility of all stakeholders and ensure their participation in the complete project cycle
- Take onboard the knowledge, experience, and skills of stakeholders to enhance the design and implementation of the project
- Ensure that stakeholders are engaged in the monitoring and reporting of the project;
- Establish a mechanism through which local communities, minorities and other vulnerable groups can raise issues they may face in the implementation of the project.

Information, dissemination, consultation and similar activities that took place during the PPG

Throughout the project development, close contact was maintained with stakeholders at national and local levels and most frequently through Zoom calls, bilateral interactions and small round table meetings to discuss different aspects of the project design and level of involvement of key partners at national and local levels. Numerous consultations with key stakeholders included:

- A series of bilateral discussions with national public institutions notably the State Committee on Ecology and Environmental Protection, State Committee on Forestry, Ministry of Water Resources, Ministry of Agriculture, representatives of International Fund for Saving the Aral Sea (IFAS), different experts collaborating with the Academy of Science, Council of Farmers, donor agencies, in order to collect information on the current project baseline, consult on proposed project interventions, explore opportunities for synergies, and confirm the commitment of project partners and secure co-financing;
- A series of consultative meeting with local district authorities (khokims), representatives of local communities and Water users Associations (WUAs), representatives of Basin Irrigation System Authorities (BISAs), representatives of local branches of domestic banks (Agrobank, Mikrocredit bank), local representatives of the Council of Farmers in targeted districts; representatives of local forestry enterprises in targeted districts, PAs management units, local NGOs and different journalists; these local consultations

aimed at assessing the feasibility of different interventions, identify limiting factors, and consultatively identify potential solutions.

Stakeholder Engagement Plan during project implementation

The project's design incorporates several features to ensure ongoing and effective stakeholder participation in the project's implementation. UNDP is committed to ensuring meaningful, effective and informed participation of stakeholders in the formulation and implementation of UNDP Programmes and Projects. Principally UNDP requires that its projects are designed with meaningful and effective participation of all stakeholders. This foundation for sustainable development assures that local peoples and other stakeholders play a key role in advancing achievement of the sustainable development goals (SDGs). UNDP's commitment to stakeholder engagement arises from internal policies, procedures and strategy documents as well as key international human rights instruments, principles and numerous decisions of international bodies, particularly as they relate to the protection of citizens' rights related to freedom of expression and participation. While there is no singular prevailing policy on stakeholder engagement within the national context, stakeholder consultations are commonly associated with project development processes. Most processes involve second tier stakeholders from within the wider community, NGOs, labor organizations, governmental institutions, industry organizations and financial bodies; as various legislation and regulations loosely define stakeholders as "any individuals or groups in a region that has a vested interest in a project".

The goal of this Stakeholder Engagement Plan is to involve all stakeholders of the project, including project-affected groups, local communities and NGOs, participating public and private sector entities, as early as possible in the implementation process and throughout project duration, and to facilitate a feedback mechanism which ensures that stakeholders views and concerns informs project direction and adaptive management.

Beyond informing stakeholders, the Stakeholder Engagement Plan provides the basis for the establishment of effective communication channels and the building of working relationships necessary for successful project implementation. It seeks to define a technically and culturally appropriate approach to consultation and disclosure. The plan ensures that all key stakeholders are fully familiar with the components of this project and that they remain committed to and supportive of the related activities in the project. To secure their participation in related disclosure activities and knowledge dissemination, the relevant stakeholders will be contacted and engaged with using different strategies and methods that best suit their contributions and interests in the engagement program. The Stakeholder Engagement Plan will be implemented in conjunction with the Gender Mainstreaming Strategy and Action Plan and with the Communication Plan that provides more detailed guidance on helping to ensuring gender equity in the project and responding to the stakeholders' tailored communication needs.

The mechanisms to facilitate involvement and active participation of different stakeholder in project implementation will comprise a number of different elements:

(i) Project inception workshop to enable stakeholder awareness of the start of project implementation

The project will be launched by a multi-stakeholder workshop. This workshop will provide an opportunity to provide all stakeholders with the most updated information on the project and the project work plan. It will also establish a basis for further consultation as the project's implementation commences. The inception workshop will address a number of key issues including: assisting all partners to fully understand and take ownership of the project; detail the roles, support services and complementary responsibilities of the State Committee on Ecology and Environment Protection, State Committee on Forestry, Ministry of Water Resources and their affiliated structures (BISA/ISA), Ministry of Agriculture, International Fund for Saving the Aral Sea (IFAS), the Council of Farmers, Dekhan Farms and Owners of Household Lands, State Committee on Land Resources, Geodesy and Cartography and Cadaster, Academy of Sciences, local government institutions, NGOs and development partners *vis à vis* the implementation of project outputs and activities and participation of their technical staff in the technical Advisory Committees (TAG) that will be advising the PMU; and discuss the roles, functions, and responsibilities within the project structure, including reporting and communication lines, and conflict resolution mechanisms. The Workshop will also be a forum to: review the project budget; finalize the first annual work plan as well as review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks; provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements; and plan and schedule project meetings for the Project Board. The project stakeholders will be informed of the Project's COVID-19 Strategy and mitigation measures that will be put in place in case of potential reinstatement of COVID-19 related restrictions.

(ii) Constitution of the Project Board to ensure representation of stakeholder interests in project

A Project Board (PB) will be constituted to ensure broad representation of all key interests throughout the project's implementation. The representation, and broad terms of reference, of the PB are further described in the Section Management Arrangements of the Project Document.

(iii) Establishment of a Project Management team to oversee stakeholder engagement processes during project

The Project Management Unit (PMU) - comprising a Project Manager (PM), project Administrative and Financial Assistant (AFA), four Task Leaders/TL (Component Coordinators) and four Field Coordinators/FC (for each targeted district) will take direct technical and administrative responsibility for facilitating stakeholder involvement and ensuring increased local ownership of the project and its results. The PM, Task Leaders and Administrative and Financial Assistant will be located in Tashkent to ensure coordination among key stakeholder organizations at the national level during the project period, while the Field Coordinators may be located in or close to the projects targeted regions to ensure closer working relationships with operational field staff of the partner institutions and with the local stakeholders and communities. An international Technical Adviser (ITA) will provide professional and technical backstopping to the PMU and across the project components.

(iv) Project communications to facilitate ongoing awareness of project

The project will refine, implement and maintain a communications plan, presented as part of a broader Knowledge management Plan (Annex 17) to ensure that all stakeholders are informed on an ongoing basis about the project's objectives; the project's activities; overall project progress; and the opportunities for involvement in various aspects of the project's implementation. This strategy will ensure the use of communication techniques and approaches that appropriate to the local contexts such as appropriate languages and other skills that enhance communication effectiveness. The project will develop and maintain a web-based platform for sharing and disseminating information on sustainable pasture and forest planning and management practices across the project planning domain.

(v) Stakeholder consultation and participation in project implementation

The key partners will actively participate to project activities. In addition, a comprehensive stakeholder consultation and participation process will be developed and implemented for each of the following outputs/activities:

- Output 1.1 : Validation of the Concept on Water Release to Lakes Wetlands and Riparian Zones
- Output 1.2: Consultations on the Integrated Management Framework for the LADAB landscape and on the Integrated LDN compatible, climate smart Sustainable Management Plans in the targeted districts;
- Output 2.1: LDN baseline validation and data processing, analysis of the national and sub-national drivers of land degradation and analysis of potential counterbalancing measures on the ground and finally identification of LDN targets and associated measures, validation and enforcement of commitments and establishment of potential LDN partnerships
- Output 2.2: Development of the Integrated Land Use Planning in four targeted districts
- Output 2.3-2.5: Strengthen Pasture Associations; prepare and implement local pastures management plans; prepare and implement local forests management plans; design and implement degraded land restoration measures;
- Output 3.1.1 and Output 3.2.1: establish new PAs, consultations on zoning and potential or perceived restrictions on utilisation of natural resources; establishment of ecological corridors and agreements on conservation measures; involvement of local communities in PAs management; feasibility assessments of tourism/ecotourism and/or recreational facilities and services in and around protected areas (aligned with applicable legislation).
- Output 3.2.3: implement technical and grant funding support to pastoralists (livestock farming, alternative income generating activities), improving farming measures, implementing water saving irrigation technologies and rehabilitation of degraded pastures;

A participatory approach will be adopted to facilitate the continued involvement of local stakeholders including the vulnerable and marginalized members of the community (including women) and institutions (such as the *mahallas*) in the implementation of the project activities within the targeted villages. Wherever possible, opportunities will be created to train and employ local residents from villages living in proximity of the sites targeted for project intervention (e.g. sites targeted for improving farming practices in irrigated areas; sites targeted for restoration/rehabilitation of degraded forests and pastures; sites targeted for sustainable pasture and forest management; sites targeted for environmental conservation activities etc.).

(vi) Formal structures to facilitate stakeholder involvement in project activities

The project will also actively seek to establish formalized structures to ensure the ongoing participation of local and institutional stakeholders in project activities. More specifically it will support the establishment of a) Multi-Stakeholder Water Management Task Force under Output 1.1. and Output 1.2 b) LDN Stakeholder Working Group (LDN SWG) under Output 2.1 which will coordinate its work with the Integrated Spatial and Land Use Planning District Committee (ISLUPDC), under Output 2.2. c) local committees comprising representatives of local self-governing bodies, pastoralists, farmers, women, youth, to discuss PAs designation, zoning and local

conservation agreements under Output 3.1.1 and Output 3.2.1 d) Innovation Challenge Task Force under Output 2.4 will include academia and NGOs and will promote the most innovative business solutions, technologies, policies and financial instruments aiming at improving land governance; e) Parks/Reserve Management committees as an institutional mechanism to improve the communication, collaboration and cooperation between tenure holders, natural resource users and the relevant national, regional and local administrations.

(vii) **Awareness and Capacity building**

Significant GEF resources are directed at building awareness and capacities of *inter alia*: local resource users and agricultural producers, district-based State Committee of Ecology and Environmental protection offices; local environmental inspectorates and border police; Protected Areas staff; local authorities (khokims) and their planning and enforcement staff; government representatives involved in land and water management. Wherever possible, the project will also seek to build the capacity of local communities (e.g. local community groups and vulnerable and marginalized segments) to enable them to actively participate in project activities. The project will, wherever possible, use the services and facilities of existing local training and skills development institutions.

Dispute Resolution and Grievance Redress

UNDP adopts the use of a Stakeholder Response Mechanism (SRM) that ensures individuals, peoples, and communities affected by projects have access to appropriate grievance resolution procedures for hearing and addressing project-related complaints and disputes.⁶⁷ In compliance with the SRM, this project will also ensure that the processes and associated policies and procedures are implemented with high standards and that the communities in the targeted regions simultaneously benefit from the activities and have a voice in their implementation. It is necessary to note that this project is categorized as a medium risk project (see UNDP SES) and as such the SRM is meant to ameliorate the potential for any conflicts and ensure that there are opportunities to immediately resolve issues so that they do not escalate. An SRM is developed to reduce any loss of trust and a halt to the project activities.

Apart from directly addressing conflicts especially associated with moderate and high-risk projects, the SRM also has the added value that can:

- Improve environmental and social outcomes for local communities and other stakeholders affected by UNDP projects;
- Enhance UNDP's ability to manage risks related to its Social and Environmental Standards, in order to avoid or mitigate social and environmental impacts.
- Ensure that UNDP responds to the concerns of project stakeholders (particularly vulnerable groups that are central to UNDP's programmatic work) with regard to social and environmental risks and impact.
- Ensure feedback and operational learning from the SRM, by integrating SRM requests, responses and ⁶⁸results into UNDP's results-based management, quality assurance processes; and
- Reflect and advance best practices among development institutions, whose stakeholders (including governments, civil society, indigenous peoples, and international partner agencies) increasingly expect social and environmental grievance resolution processes to be a regular, integrated part of project management.

Although the implementation of an SRM is not anticipated, the grievance mechanism (see below) is intended for use by all individuals, groups, communities or agencies who may inadvertently be affected by the implementation of this Project. Priority beneficiaries and users of the grievance mechanism are: farm owners, non-government organizations, academia, and private individuals in the LADAB landscape who are considered to have had adverse experiences caused by or exacerbated by the project.

Conflict and Grievance Mechanism

The process to settle conflicts and grievances will be presented in several of the consultations with stakeholders and as part of the ongoing commitment to information sharing processes that will be instituted in the project cycle. Stakeholders will be informed that the implementation of a project specific mechanism will not incur any costs and that the same mechanism remains in place for the duration of the project. Stakeholders will be informed of the following process as outlined below. During the project implementation, they will provide feedback and endorsement for the project specific conflict resolution mechanism. Should grievances and conflicts arise, they

⁶⁷See UNDP Draft Guidance Note, UNDP Social and Environmental Standards (SES) **Stakeholder Engagement**, p. 17. The Stakeholder Response Mechanism helps project-affected stakeholders, UNDP's partners (governments, NGOs, businesses) and others jointly address grievances or disputes related to the social and/or environmental impacts of UNDP-supported projects.

⁶⁸UNDP, Stakeholder Response Mechanism: Overview and Guidance, p.5

should be submitted to UNDP Uzbekistan. Registered grievances will be reviewed and managed by the Project Board. To do so, the project will at inception:

- Identify appropriate staff who will aid with responses to conflicts and grievance that may arise from stakeholder;
- Develop and install specific guidelines for use by staff and other personnel who will be assigned to enact various roles for the resolution of any conflict or grievance; and
- Provide formal training to staff and other personnel who have assigned roles to perform in the implementation of the conflict and grievance mechanism.

A grievance mechanism will be additionally incorporated within the on-granting process established within Component 3 (Output 3.2.3) with responsibility to monitor for early detection of grievances. Standard Operating Procedures for recording and addressing community and other stakeholder grievances at the grantee project level will be established.

Operationalizing the Project Approach to Conflict and Grievance in the NIM Context

- *The Concern or Grievance* - Where a grievance or concern is experienced or identified as resulting from the project interventions, it is expected that this matter will be immediately conveyed to a representative from the National Implementation (or NIM) Partner. The format in which a matter is raised can be in writing, verbally or via text. At this level, the aim of this first step is to bring awareness to the issue before and to prevent any further escalation of the issue.
- *Immediate attention to the concern or grievance* - The matter raised will be acknowledged and addressed by the project manager or a designate to prevent any adverse effects on individuals engaged in the project, a specific region or on the pace of project interventions.
- *Resolution of the concern or grievance* - The project official who receives this information will inform the project manager and the project specific oversight mechanism will be enacted.⁶⁹ It is expected, however, that such concerns and grievances can be appropriately and effectively settled through the use of discussion, correspondence, meetings and management decisions. This approach will likely not require formal logging or tracking.
- *The conclusion of the grievance or concern* - At its conclusion, the decision to conclude the grievance will be documented to the complainant in written form.

Monitoring

Overall, despite that the project has a medium-risk assessment based on its SES, stakeholders will remain engaged in monitoring during project implementation. Updated and revised measures will be presented at project board meetings and at the broader stakeholder group meetings. Outputs and indicators from the Project Results Framework will serve to assess stakeholder engagement and intervention effectiveness. These indicators will be disaggregated further by stakeholder type, gender, etc., as needed and appropriate.

The table below describes the major categories of stakeholders identified and the proposed involvement in the project:

Stakeholder	Proposed involvement in the project
Ministry of Water Resources	The Ministry of Water Resources will likely be represented in the Project Steering Committee and Technical Advisory Groups. Key partner under Component 1, in the development and implementation of improved water management practices : (i) will chair the Multi-Stakeholder Water Management Task Force (Output 1.1.) (ii) will support environmental data collection for the comprehensive assessments under Component 1 (iii) will review and approve the Integrated Water Management Framework, the four Integrated Water Management Plans at district level; it will approve the new Concept for Water Releases towards Lakes, Wetland and Riparian Zones; and will participate in the development, review and approval of the Investment Plan in the Main Hydrological Facilities in LADAB landscape

⁶⁹ During project implementation a specific approach outlining specific roles and responsibilities consistent with the policies and procedures of the NIM partner will be developed and presented to the stakeholders. They will also use this opportunity to provide additional information and feedback to strengthen the project specific response mechanism.

	(Output 1.2) (iv) will support the implementation of the district level sustainable water management (Output 1.2) (v) will support the formal approval of the legislative amendments to the Water Code in order to enforce the minimum ecological flows to Amudarya delta ecosystems, especially under climate change predicted deficits (vi) will provide the co-financing . Its local divisions will participate into the Integrated Spatial and Land Use Planning District Committee (ISLUPDC), to be set-up under Output 2.2. It will support the implementation of Awareness and Education events (Component 4).
Ministry of Water Resources of Karakalpakstan	It will play an important role in supporting the achievement of Component 1 outputs. Will help in ensuring timely water release for irrigated lands and KBAs within Karakalpakstan.
(BISAs)-Basin Irrigation System Authorities : Amu-Bukhara BISA	The Basin Irrigation System Authorities (BISAs) are responsible for allocation of available water resources to the Irrigation System Authorities (ISAs). BISAs will play important role in supporting the achievement of Component 1 outputs. The water managers' understanding of the importance of improved and more equitable allocation of water among multiple water users is very important and BISAs representatives will actively participate into awareness and training activities. Amu-Bukhara BISA is ensuring timely water release for irrigated lands and KBAs within Bukhara province.
Left-bank-Amudarya BISA	Idem as above. Left bank Amudarya BISA is ensuring timely water release for irrigated lands and KBAs within Khorezm province.
Niznedaryinskiy department under Basin Water Organization "Amudarya"	Formerly known as Nukus department, this responsible for operation of Takhiatash hydro technical facility, it is managing river water intake facilities for Han-yab and Jumabaysaka canals, controls all water intakes from river section between Kipchak station and Aral Sea (283 km section). This is a key partner under the project, providing data on the water management situation in project areas. It will play an important role in supporting the achievement of Component 1 outputs.
ISAS-Irrigation System Authorities	ISAs operate at canal levels and drainage networks in the irrigation systems, operate the pumps and deliver water to the Water Users Associations (WUAs).
Water Users Associations (WUAs)	WUAs are non-profit, non-governmental associations, their members consisting of farmers. These are the main beneficiaries of activities under Component 1, actively participating in awareness and education activities and Micro-scheme support for livelihoods (Output 3.2.3).
Interstate Commission for Water Coordination	ICWC will serve as adviser to the project during the development of the Integrated Water Management Framework for LADAB landscape and the calculation of the ecological flows necessary to maintain the ecological integrity of lakes, wetlands and riparian zones in Amudarya basin, especially under the climate change water deficits predictions.
International Fund for Saving Aral Sea (IFAS)	IFAS will be part of the Component 1 Task Force and Technical Advisory Groups (TAG). IFAS will be the project's key partner in implementing all the activities under Component 1. The project will also coordinate closely with other IFAS implemented projects in order to capitalize on synergies.
Ministry of Agriculture	The Ministry of Agriculture will likely be represented in the Project Steering Committee and Technical Advisory Groups (TAG). Key project partner; it will supporting the implementation of land restoration and afforestation measures in targeted areas in Bukhara and Karakalpakstan regions(Output 2.3, 2.4 and 2.5); Investments into the modernization of irrigation systems in irrigated agricultural land of targeted districts (Output 1.2); Collection of environmental information for the development of the LDN compatible land use plans (Output 2.1 and Output 2.2); Its local divisions will participate into the Integrated Spatial and Land Use Planning District Committee (ISLUPDC), to be set-up under Output 2.2. The ISLUPDC will consist of local divisions of State Committee on Land Resources, Geodesy and Cadastre (Goskomzemgeodezkadastra), Ministry of Agriculture, Ministry of Water resources, State Committee of Ecology, district authorities, local communities' representatives, farmers (daikhan farms, individual farmers),

	women groups. Support to implementation of Awareness and Education events (Component 4).
State Committee on Ecology and Environment Protection	The State Committee on Ecology and Environmental Protection will be the Implementing Partner- it will support the implementation of all the project activities. Its local divisions will participate into the Integrated Spatial and Land Use Planning District Committee (ISLUPDC), to be set-up under Output 2.2. The State Committee on Ecology will support the : collection of environmental data for designation of new PAs (Output 3.1.1); Official designation of (3.1.1); Data collection for improved PAs zoning (Output 3.2.1); Updating the management plans of the exiting PAs(3.1.2); Investments into management and monitoring infrastructure of new PAs (Output 3.1.1.); Strengthening monitoring and inspection and patrolling capacities of existing PAs (Output 3.1.2); Training and capacity building of all PAs staff, and Inspectorates and Border Police (Output 3.2.2); Awareness events (Output 4.1).
The State Committee of the Republic of Uzbekistan for Tourism Development	According to the State Committee for Tourism Development, it is planned to allocate 2,000 hectares for the development of an "Aral oasis" in the area of Sudochye lakes. The State Programme includes also organization of the community-based tourism in surrounding areas to the Aral Sea, the Lower Amu Darya Biosphere Reserve and Sudochye Lake. Therefore, the State Committee for Tourism will be a key partner for consultation on the potential for nature-based tourism (ecotourism) in and around the protected areas under the project's scope, which the project will assess (Output 3.1.1 and 3.1.2). At the same time, the State Committee for Tourism will be involved in the development and delivery of training sessions to local communities and rural entrepreneurs on nature-based ecotourism (Output 3.2.2 and 4.1.1).
Cabinet of Ministers of Uzbekistan	Will decide and approve the establishment of protected based on proposals from State committee on ecology. It plays an important role in support of the project outputs under Component 3 (Output 3.1).
The Council of Farmers, Dekhan Farms and Owners of Households Lands	The Council of Farmers will likely be represented in the Project Steering Committee. Key project partner; it will support the Implementation of the Micro-scheme for improved livelihoods (Output 3.2.3) through facilitation of funds from the Fund "On Additional Measures to Improve the Activities of Farmers, Dekhkan Farms and Owners of Private Lands". Beneficiary of awareness and training activities. Will support the implementation of all the project activities under Component 2.
State Committee on Forestry and Forestry Enterprises in targeted districts	The State Committee on Forestry will likely be represented in the Project Steering Committee and Project Technical Advisory Groups (TAG). The Forestry Enterprises are key project partners in all four districts: Alat Forestry Enterprise (Kirlishon Section and Hojadaylat Section); Karakul Forestry Enterprise ; Kipchak Forestry Enterprise; Beruny Forestry Enterprise (Amudarya) ; Moynaq Forestry Enterprise. The Forestry Enterprises will be supporting Investments into different Sustainable Land Management (SLM) measures in Bukhara and Karakalpakstan regions; development and approval of the pasture management plans (Output 2.4 and 3.2.3), forest management plans (Output 2.5) and land restoration activities (Output .2.4); The Forestry Enterprises will be actively participating in and benefiting from education and awareness events (Component 4). Support on the issues of sustainable nature management in Kungrad state forest hunting enterprise during creation of Southern Ustyurt protected area and in Kazakdarya state forest hunting enterprise during creation of Akpetki Protected Area; support on the issues of sustainable nature management in Tahtakupyr State forestry enterprise during creation of Akpetki PA (Output 3.1).
State Committee on Land Resources, Geodesy, Cartography and National Cadaster (Goskomzemgeodezkadastr)	The State Committee on Cadastre will likely be represented in the Project Steering Committee and technical Advisory Groups (TAG). Responsible for the regulatory framework related to land use, land tenure and technical aspects of land use planning. It performs many functions that are of direct relevance and importance for the implementation of activities under Output 2.1 and

	Output 2.2. It will review and approve the integrated land use plans in the targeted districts. It will participate in the project awareness and education events.
Regional government (velayat khokims)	A representative <i>khokim</i> of the affected <i>viloyats</i> will sit in the project steering committee and will mediate two-way communication between national policies and priorities and local project activities and actions to ensure that there is good alignment. The khokims will be part of the activities under Outputs 2.1 and 2.2, they will review the land use plans and LDN targets.
Regional district level government (rayons khokims)	The <i>rayons</i> will play an important role in supporting the implementation of the project in selected districts. They will be direct beneficiaries of training and awareness activities. They will participate into activities under Output 2.1 and 2.2. and will approve the district level LDN centered Integrated Land Use Plans.
Rural communities in villages (auls and kishlaks) including members of the Associations of Pasture Users	Local residents in the targeted project areas, farmers and pastoralists who are using pastures and forest areas in targeted project locations will be actively engaged in the project. They will be consulted and invited to participate in the demonstration of SLM measures and will work in coordination and cooperation with forestry enterprises. The local communities representatives will be invited to participate in all project activities especially in relation to alternative livelihoods and improving sustainable land use practices and agreeing on ecological corridors and measures for a better PAs zoning and delineation of buffer areas. They will be consulted in the planning of all project activities affecting local communities.
Mahallas (In kishlaks and auls)	The <i>mahallas</i> (self-governing bodies) will provide the mechanism for the ongoing consultation will local villages and rural settlements in the Bukhara and Karakalpakstan regions on project outputs and activities, especially with regard to the designation of new PAs, implementation of joint conservation measures, agreements on ecological corridors and biodiversity friendly agricultural practices in buffer areas.
Local and national NGOs	The NGOs will provide specific communication and awareness support to ensure that the project is clearly understood and to encourage active involvement and participation in the project and its activities. NGOs may also be contracted to implement specific project activities, for example : Khorezm Rural Advisory Support Service (KRASS) will be invited to partner with the project in order to deliver training sessions on water and land integrated management; the “Hunarmand Association of Folk Artists, Craftsmen and Artists in Uzbekistan and the Business Women Association in Uzbekistan will be invited to join the project and deliver trainings at local level for rural women and youth on local handicraft production, medicinal herbs value chain, business planning and women entrepreneurship, and support the organization of cultural exhibitions and access to markets etc.
Bird Conservation Society of Uzbekistan	The Bird Conservation Society will complement the project’s conservation and awareness activities, will join efforts in disseminating knowledge about the key biodiversity values of the Importance Bird and Biodiversity Areas IBAs/KBAs embedded into the existing and newly proposed protected areas under the project scope. The project will work with the Bird Conservation Society to create and install information boards/signage about IBAs and promoting the importance of IBAs for the conservation of biodiversity in the protected areas targeted by the project.
Development partners such as GIZ, World Bank, FAO	Development partners supporting conservation projects and initiatives to improve the sustainable management of rangelands and forests in Uzbekistan will be important project partners. They will share, coordinate and collaborate with the project as and where relevant. They may be represented on the project Steering Committee and Technical Advisory Groups (TAG).
Regional Environmental Center for Central Asia (CAREC)	The Regional Environmental Centre for Central Asia (CAREC) is an independent, non-political and non-for-profit international organization with regional mandate to assist the Central Asian governments, regional and international stakeholders

	in addressing environmental and sustainability challenges across Central Asian region and Afghanistan. CAREC will be the Responsible Party in charge with the implementation of Component 4.
The International Centre for Agricultural Research in the Dry Areas (ICARDA)	The International Centre for Agricultural Research in the Dry Areas (ICARDA) is an international organization undertaking research-for-development, providing innovative, science-based solutions for communities across the non-tropical dry areas. ICAEDA will be part of the Technical Advisory Groups (TAGs) and will provide technical support and expertise for the implementation of activities in support of Component 2 of the project.
International Center for Biosaline Agriculture (ICBA)	ICBA will be a key partner in implementing innovative land restoration solutions in project targeted areas, under Output 2.4. Will likely be represented in the committee (Task Force) evaluating proposals under the Innovation Challenge and Technical Advisory Groups (TAG).
Centre for AgroInformation and Innovation	Key partner in the project's activities under Output 2.4, supporting the identification of innovative land restoration activities. Will likely be represented in the committee (Task Force) evaluating proposals under the Innovation Challenge and Technical Advisory Groups (TAG).
Academy of Sciences of the Republic of Uzbekistan and its specialized Institutes	The Academy will provide scientific support and advisory services, through its research institutions, to the project outputs and activities. The Academy may be represented on the Technical Advisory Groups (TAG) Based on their experience and expertise, Academy of Sciences will play a role in elaboration of the scientific bases for various project activities and innovative solutions, PA establishment and management strengthening. National scientific institutions participation envisaged in the project, include Seed Production Center under the State Forestry Committee, and the activities on creating fast-growing forest plantations on degraded or low-potential land in the Amu Darya floodplain area (Lower Amudarya Biosphere Reserve, Kyzylkum Reserve).
Local banks	The local banks such as the Joint Stock Commercial Bank Agrobank and the Joint Stock Commercial Bank Mikrocredit bank, provide loans and microcredits to agricultural sector and will be partners in the Micro-scheme implementation (under Output 3.2.3), through the project's partnership with the Council of Farmers. The local banks will also be beneficiaries of awareness raising activities (Output 4.1).

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**Minutes
of online validation workshop**

*UNDP/GEF Project
Conservation and sustainable management of lakes, wetlands and riparian
corridors as the basis of a sustainable and land-degradation-neutral landscape of the Aral Sea basin that supports
sustainable livelihoods
Tashkent, Uzbekistan*

Date and time: 6 November 2020, 15:00-17:30

Link to Zoom workshop: <https://undp.zoom.us/j/89567713149?pwd=N0pPd2dmR2Z0bTJHa25uRi9lVFdhZz09&from=addon>

The agenda and the list of participants of the project document validation workshop are provided in Annexes 1 and 2, respectively.

Workshop objective: To present and discuss Conservation and sustainable management of lakes, wetlands and riparian corridors as the basis of a sustainable and land-degradation-neutral landscape of the Aral Sea basin that supports sustainable livelihoods Project document proposed by UNDP for GEF financing. To solicit feedback from

key national stakeholders and partners and obtain their comments to finalize the project document and confirm their agreement to submit the document to UNDP headquarters and to GEF Secretariat for consideration.

Moderator: **Bakhadur Paluaniyazov**, Head of Environment and Climate Action

Course of the meeting:

Narzullo Oblomuradov, First Deputy Chairperson of the State Committee of the Republic of Uzbekistan on Ecology and Environment Protection, welcomed the participants of the workshop and expressed sincere hope for productive cooperation. In his welcoming remarks, he briefly described the situation in the Aral Sea region, outlined development priorities and innovative approaches of the Government aimed at addressing environmental and economic problems of the region. He noted that in order to implement measures aimed at improving the environmental and socio-economic situation in the Aral Sea region, timely and effectively implement investment projects aimed at mitigating the consequences of the environmental catastrophe of the Aral Sea, the State Program for the Development of the Aral Sea Region for 2017-2021 was approved. In this connection, he emphasized the timeliness of the developed project, its significance and relevance, and noted that the objectives of the project are aligned with the priorities of the state in the Aral Sea region, where sustainable development can be achieved only through common efforts and consolidated actions. He expressed his sincere gratitude to all national partners and stakeholders for participating in this Project document discussion workshop.

Mr Oblomuradov encouraged the workshop participants to actively discuss and share their feedback, comments and suggestions, which are crucial for finalizing the project document and submitting it to the GEF Secretariat.

Matilda Dimovska, UNDP Resident Representative in Uzbekistan, welcomed the workshop participants and noted that the project is aimed at solving key problems in the Aral Sea zone, and that an open discussion is a very important and necessary stage in the preparation of the final document and it is necessary to discuss further steps, to hear and take into account the opinions and proposals of all stakeholders present at the meeting before finalizing the document.

Madam Dimovska also touched upon other initiatives of UNDP and UN assistance to the government of Uzbekistan in promoting a new concept - transformation of the Aral Sea region into a zone of environmental innovations and technologies. She spoke about importance of a systemic approach in addressing the problems of the Aral Sea region - consolidation of actions for sustainable management of natural resources, restoration of land resources and conservation of biodiversity. She expressed confidence in successful actions in this direction, provided that the efforts of all stakeholders and partners are consolidated. She wished to the participants a successful workshop.

Maxim Vergeichik, Regional Technical Advisor of UNDP BPPS, welcomed the workshop participants and outlined the context and framework of the issues under consideration from the perspective of the donor - GEF, while noting that the key element of any project is compliance with the requirements of the conventions, in this case the Convention on Biodiversity Conservation and the Convention to Combat Desertification. From this point of view, the requirements of both GEF and the government of Uzbekistan will be complied with. He also reflected on the idea, which came up during the project development, to focus work on the conservation of wetlands as the most important ecosystems in terms of climate and biodiversity conservation. He spoke about the development of conceptual areas - the issues of water use, which are important both for the population and for biodiversity, the state of protected areas, sustainable use of natural resources in the long term, in order to obtain benefits for the population without tipping the ecosystem balance. After GEF had approved the conceptual directions, the project team developed a project document, which is being discussed today. Mr. Vergeichik expressed hope for a constructive discussion of the presented project and his willingness to answer questions regarding GEF donations.

Monica Moldovan, International Project Development Specialist, presented an overview of the proposed project components, activities and results. The presentation covered: the process of preparing the project document, the scope of the project, the expected results of the project under 4 Components, synergy with other initiatives, the organizational structure of the project, possible risks in its implementation, environmental and social safeguards, gender aspects, and the next steps subsequent to this workshop.

Khalilulla Sherimbetov, Head of Protected Areas Department, Lead of national team of experts, once again reflected on the main results and effects expected from the project. He spoke about the work of experts under each Component of the project; noted the difficulties of the current situation that the project team faced during the implementation of field missions. He noted that the implementation of the project will contribute to the fulfillment of the obligations of Uzbekistan under the Conventions, increase the level of PA protection (Aichi target 10), increase the PA coverage of the areas of globally threatened species (Aichi target 17), which together will contribute to the achievement of the goals of the National Strategy for Biodiversity Conservation in the Republic of Uzbekistan for 2019-2028.

After the presentation on the goals, objectives and expected results of the project, **Bakhadur Paluaniyazov**, Head of Environment and Climate Action, invited the participants to proceed to discussions in order to assess the presented project document and generate relevant recommendations and proposals. It was noted that the final version of the project document will be prepared taking into account the views and proposals of all stakeholders who took part in the workshop discussion.

Questions, opinions, comments	Answers	Comment reflected in the project document
<p>Vadim Sokolov, National Water Resources Management Consultant: This is the 1st project in Uzbekistan that will try to implement the LDN concept and pilot irrigation areas management aligned with LDN principles (as well as with IRWM). The project is aimed at introducing a system of integrated water resources management - compliance with irrigation schedules, water-saving technologies, reconstruction of irrigation systems, harmonization of the legal framework, determination of PAs' water requirements (comment).</p>		<p>Component 1 "Coordinated water management as basis for LDN and conservation"</p>
<p>Sherzod Umarov, FAO: FAO is already implementing 2 GEF funded projects. Currently, project documentation is being prepared for two more GEF-7 projects. In this regard, it would be good to exchange experience for synergy of activities.</p>	<p>Bakhadur Paluaniyazov, Program lead on environmental issues: as noted in the presentation of Ms. Monica Moldovan, during the preparation of the project document, the possibilities of synergy of activities were studied, the importance of partnerships in the implementation of project activities, including with FAO projects, was taken into account. We look forward to working together will specifically highlight the cooperation's opportunity in the project document.</p>	<p>Incorporating FAO good practices and further cooperation with FAO has been consistently incorporate in many paragraphs of the project document, e.g. Component 2, Output 2.1 para 42. ; Output 2.2 para 45 etc.</p>
<p>Narzullo Oblomuradov, First Deputy Chairman of the State Committee of the Republic of Uzbekistan on Ecology and Environment Protection: The Committee is ready to provide comprehensive support in the implementation of the project. Special attention should be given to Component 4. It is very important Component, which is related to exchange of knowledge and cooperation between organizations. From our end, we are ready to create a permanent platform for exchange of knowledge on the implementation of</p>	<p>Bakhadur Paluaniyazov, Program lead on environmental issues: I want to once again stress the importance of Component 4 and risks that were identified. Working in collaboration with all entities and partners we will be able to mitigate the risks to the maximum possible degree. At working level we will consider all possible options for acceleration of the finalization of the project document, However, there are certain procedures for project document development, which we have to comply with.</p> <p>Maxim Vergeichik, Regional Technical Advisor of UNDP BPPS: I like very much the process so far. I think, we did not lose much time, and considering that the project is very complex, we have to prepare many</p>	<p>Component 4, para 92.</p>

<p>various projects between national and international organizations. We have an agreement in place with UNDP and are ready for joint action.</p> <p>Concerning risks – they are present, and we will provide assistance to the project implementation team and all our partners in order to minimize these risks and maximize the practicality of the project results.</p> <p>Perhaps, it would be advisable to consider the possibilities of accelerating the process of preparation of the final version of the document.</p>	<p>documents and attachments to finalize the project document. State Committee on Ecology keeps everything under control, and the documents prepared by experts are of very high quality. From our side, i.e. the regional office, there will be no delays.</p>	
<p>Roman Kashkarov, Executive Director of the Society for the Protection of Birds of Uzbekistan (UzSPB): UzSPB – is an official partner of the international association Bird Life International. Since 2005 our Society has been carrying out the inventory of KBAs covered by the project area. All these territories are included in the international IBA network, and all project target territories are facing two serious key problems. Firstly, unstable hydro regime. First question is to the representatives of the Ministry of Water Resources: to what extent it is realistic to ensure the release of sufficient volumes of water for maintenance of sustainable biodiversity of wetlands?</p> <p>Secondly, unsustainable use of natural resources. Significant resources will be needed to maintain the protection regimes and most importantly for regional environmental inspections. Will the project provide funds to cover technical needs in the course of implementation of this Component?</p>	<p>Vadim Sokolov, National Water Resources Management Consultant: The project envisages joint work of the Ministry of Water Resources and the State Committee on Ecology on the harmonization of the water and environmental codes and subsequent assessment of how much water is needed to maintain the biodiversity of wetland areas. This will be achieved through mainstreaming the water use in irrigated areas. In 5 years we can achieve savings of up to 1 km³ of water per year. The question is who will regulate this water and how it will get into natural areas. This will depend on the coordination of the actions of the Ministry of Water Resources and the State Committee on Ecology.</p> <p>Khalilulla Sherimbetov, Head of Protected Areas Department, Lead of national team of experts: Under the project PAs will be established in the form of legal entities. Inspectors of these territories will ensure the PAs' regimes. It is envisaged under the project to conclude an agreement between the Ministry of Water Resources and the State Committee on Ecology on ensuring the minimum water level in the water bodies of the project area in order to maintain biodiversity and conservation of ecosystems.</p> <p>Monica Moldovan, International Project Development Specialist: Thank you for your questions, they are taken into account in the project document - providing support for joining efforts in this direction and revising water use norms, carrying out calculations together with scientists and decision-makers to determine the minimum ecological flow in the project area and the required minimum water level for wetland areas. We tried to address these issues with appropriate actions in the project document. We also plan to work in partnership with your organization.</p>	<p>Component 1 (both outputs) Component 3 (Output 3.1.2) Component 4, Output 4.1.1 para 96. Stakeholder Engagement Plan (table)</p>
<p>Yelena Kan, NGO KRASS: On Output 3.1.2: Please bring an example of a hard component for building capacity of the selected, existing PAs?</p> <p>On Output 3.2.3: Who will be responsible for monitoring of soft loans issuance to "green" innovative farmers?</p>	<p>Monica Moldovan, International Project Development Specialist: Under Output 3.1.2, the project document provides for measures to improve the management effectiveness of the existing PAs through PAs regime compliance and enforcement, improved zoning, strengthening equipment base and skills for an efficient patrolling, monitoring and species-focused conservation activities, local</p>	<p>Component 3, Output 3.1.2 and 3.2.3</p>

	<p>communities outreach and facilitating their participation in management decisions and wildlife monitoring.</p> <p>On Output 3.2.3: We will cooperate with the Council of Farmers aiming at setting up a micro- scheme for farmers (\$150 000 project contribution) in order to support access to financing for Sustainable Land Management (SLM) measures (i.e. soft loans under the State Fund “On Additional Measures to Improve the Activities of Farmers, Dekhkan Farms and Owners of Private Lands”). The Loans and credits will be managed by the respective banks, not through the project. The project will provide grants to offset the loan interests and provide technical assistance on select SLM measures. The selection of the supported applications will be done based on certain criteria (e.g. implementation of SLM and sustainable/innovative irrigation measures; cost-effectiveness; vulnerability to climate change; women and youth participation etc.) and the applications will be ultimately approved by the Project Board. The project will assist in the preparation of loan applications and will provide technical assistance for the application of the SLM measures in the field.</p>	
<p>Shakhnoza Umarova, Director of CAREC Office in Uzbekistan: Will the project carry out wide PR campaign? Such campaigns are very important for good results and scaling up of projects.</p>	<p>Monica Moldovan, International Project Development Specialist: Thank you for these highlights. Yes, absolutely. We have planned a wide campaign to inform the public to hopefully match the complexity of this project and raise the level of knowledge and awareness of the natural resource users on Land Degradation Neutrality (LDN) and what this stands for, on biodiversity and sustainable water and land management, through a variety of activities under Component 4. The project will be supported by a PR/media company and will reach out to a wide range of stakeholders using targeted communication messages. During the project preparation phase, we have developed awareness and education questionnaires for different target groups and we’ve analyzed the potential capacity building areas for key project stakeholders. The survey results has helped identifying (at least preliminarily) the main communication needs of different stakeholders and formed the basis of our Communication Plan as well. We have designed the Knowledge Management component also considering the previous good practices tested by other donor-supported projects (including CAREC projects) and we hope to have opportunities to cooperate with your organization during the project implementation.</p> <p>Natalya Shulgina, National Consultant on Communication and Awareness: Component 4 is cross-cutting and contributes to all project activities by engaging and informing all stakeholders. We tried to make the Communication Plan as specific as possible, and we tried to link it with the rest of the project. In the process of project implementation, the Plan will be improved, including based on the experience of other projects.</p>	<p>Component 4, Output 4.1. South-South cooperation (para 148)</p>

<p>Yusup Kamalov, NGO UDASA: Water saving for sustaining of ecosystems is a very important topic. In my opinion, it is advisable to utilize economic incentives and technical measures, as well as introduce market mechanisms in the water use to ensure water saving. If our neighbors gave higher limits on water, we would be able to start addressing the issues of ecosystem restoration.</p>	<p>Maxim Vergeichik, Regional Technical Advisor of UNDP BPPS: The water issue is a transboundary issue, and attempts should be made at a dialogue with neighboring countries under UNDP projects. The issue of economic incentives for water saving deserves attention.</p>	<p>Component 1, Output 1.1 (para 26 and para 31).</p>
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Workshop results:

Khalilulla Sherimbetov, Head of Protected Areas Department, Lead of national team of experts: State Committee of the Republic of Uzbekistan on Ecology and Environment Protection fully supports the project's activities and is ready to cooperate with all project partners. All comments and proposals expressed during the discussions will be taken into account during finalization of the project document. On behalf of the Committee, I express gratitude for the active participation and constructive discussion during the workshop and hope for the earliest approval of the project by GEF.

Maxim Vergeichik, Regional Technical Advisor of UNDP BPPS, noted that he had no comments on the course of the discussion. Very interesting presentation of the project details, interesting comments and questions. He agreed with the previous speakers that the key issue is water, and that without a comprehensive solution to this issue success may not be achieved. The project will try to do the groundwork to address this issue. The solution will require capital investments, and the participation of the partners with whom this issue can be resolved within the framework of the Aral Sea initiatives is of paramount importance. The questions raised will be reflected in the subsequent version of the project document. He assured that there will be no delays in the consideration and approval of the project document on the part of the Regional Center and Headquarters. Colleagues in the GEF Secretariat also support us, since the issues of the Aral Sea basin is a priority. He thanked everyone present for the constructive dialogue and expressed hope for the soonest approval of the project document.

Bakhadur Paluaniyazov, Head of Environment and Climate Action, thanked all workshop participants for their active participation and expressed hope for further fruitful cooperation with all national partners under this project and other joint initiatives. He noted again that if there are any suggestions, they can be sent in writing to the provided contact address. All proposals will be considered and, if possible, integrated into the project document.

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Online validation workshop

UNDP/GEF Project

Conservation and sustainable management of lakes, wetlands and riparian corridors as the basis of a sustainable and land-degradation-neutral landscape of the Aral Sea basin that supports sustainable livelihoods

November 6, 2020, Tashkent city

Link to Zoom <https://undp.zoom.us/j/89567713149?pwd=N0pPd2dmR2Z0bTJHa25uRi9lVfDhZz09&from=addon>
workshop:

Meeting ID: 895 6771 3149

Passcode: 887647

Time	Activity
14:45 – 15:00	Registration
15:00 – 15:20	Welcome remarks

	<p>Mr. Narzullo Oblomuradov, <i>First Deputy Chairperson of the State Committee of the Republic of Uzbekistan for Ecology and Environment Protection</i></p> <p>Ms. Matilda Dimovska, <i>UNDP Resident Representative</i></p> <p>Mr. Maxim Vergeichik, <i>Regional Technical Advisor of UNDP BPPS, Istanbul Regional Hub</i></p>
15:20 – 16:00	<p>Overview of proposed project components, activities and results</p> <p>Ms. Monica Moldovan, <i>International Project Development Specialist, GEF PPG Team Leader</i></p>
16:00 – 16:30	<p>Main expected results and effect of the project</p> <p>Mr. Khalilulla Sherimbetov, <i>Head of Department, the State Committee of the Republic of Uzbekistan for Ecology and Environment Protection</i></p>
16:30– 17:00	Questions and answers, discussion
17:00 – 17:15	Wrapping up the meeting
17:15 - 17:30	<p>Closing remarks:</p> <p>State Committee of the Republic of Uzbekistan on Ecology and Environmental Protection UNDP</p>

Online validation workshop**UNDP/GEF Project**

Conservation and sustainable management of lakes, wetlands and riparian corridors as the basis of a sustainable and land-degradation-neutral landscape of the Aral Sea basin that supports sustainable livelihoods

November 6, 2020, Tashkent city

List of Participants

Time: from 15:00 to 17:30

#	Names of representatives	Organization
National organizations		
1.	Dauletnazar Aynazarov	Council of Ministers of the Republic of Karakalpakstan
2.	Narzullo Oblomuradov	State Committee of the Republic of Uzbekistan on Ecology and Environment Protection, First Deputy Chairman
3.	Khalilulla Sherimbetov	Department for Biodiversity and Protected Areas of the State Committee of the Republic of Uzbekistan on Ecology and Environment Protection, Head of PA Department, Lead of national team of experts
4.	Jahongir Talipov	State Committee of the Republic of Uzbekistan on Ecology and Environment Protection, Head of International Cooperation and Projects Department
5.	Kamol Kuchkarov	Ministry of Water Resources of the Republic of Uzbekistan, Deputy Head of the Land Reclamation Department
6.	Murat Kurbaniyazov	Ministry of Agriculture of the Republic of Karakalpakstan
7.	Sobirjon	The State Forestry Committee
8.	Bakhrom Pardaev	State Committee of the Republic of Uzbekistan for Tourism Development
9.	Mariya Gritsina	Institute of Zoology of the Academy of Sciences of the Republic of Uzbekistan, researcher
10	Roman Kashkarov	Society for the Protection of Birds of Uzbekistan (UzSPB), Executive Director; Institute of Zoology of the Academy of Sciences of the Republic of Uzbekistan, senior researcher
11	Yelena Kan	KRASS- NGO of pilot districts
12	Liliana Shin	KRASS - NGO of pilot districts, Director
13	Yusup Kamalov	UDASA - NGO of pilot districts
14	Eshtukhtar Buriev	Mikrokreditbank
International organizations and projects		
15	Shahnoza Umarova	Uzbekistan Office of CAREC, Director of CAREC in Uzbekistan

16	Maxim Vergeichik	UNDP Regional Hub in Istanbul, UNDP Regional Technical Advisor BPPS
17	Feruza Insavaliyeva	ADB/URM
18	Sherzod Umarov	FAO
19	Davron Khodjiev	KOICA
20	Matilda Dimovska	UNDP, Resident Representative in Uzbekistan
21	Bakhadur Paluaniyazov	UNDP, Environment Program Manager
22	Gaukhar Kundaybergenova	UNDP, Environment Program Officer
23	Ulugbek Islamov	UNDP, EUWater Project Manager, Manager of PPG
24	Abbos Ahadov	UNDP, Mountain Ecosystems Project Manager
25	Kamila Alimjanova	UNDP, RMU Associate
26	Ravshan Yunusov	UNDP, National Coordinator of the SDG Integration initiative in the Aral Sea region
27	Alisher Utemisov	UNDP, Manager of Joint Programme in Aral Region
28	Elvira Izamova	UNDP, Programme Associate
29	Elbek Isroilov	UNDP, project financing and management specialist
30	Monica Moldovan	International Project Development Specialist/PPG Team Leader
31	Vadim Sokolov	National water management consultant, PPG UNDP/GEF; Head of IFAS Agency.
32	Yuliya Mitropolskaya	National PA consultant, PPG UNDP/GEF
33	Khojimurod Talipov	National consultant on Land Degradation Neutrality, PPG UNDP/GEF
34	Natalya Shulgina	National communication and awareness consultant, PPG UNDP/GEF
35	Dildora Karimova	National consultant on gender Issues, PPG UNDP/GEF
36	Shukhrat Bobomurodov	National land use planning consultant, PPG UNDP/GEF
37	Tulkin Farmonov	National consultant on forest and pasture management, PPG UNDP/GEF
38	Ametbay Kodirov	Sustainable livelihoods consultant for Amudaryya district, PPG UNDP/GEF

Process Framework – Template

A Process Framework is prepared when UNDP-supported projects may cause restrictions in access to natural resources in legally designated parks and protected areas. The purpose of the process framework is to establish a process by which members of potentially affected communities participate in the design of project components, determination of measures necessary to address the requirements of SES Standard 5, and implementation and monitoring of relevant project activities.

The level of detail of the Process Framework may vary depending on project activities, characteristics of restrictions and their impacts, and the number of persons affected. The Process Framework supplements the project's environmental and social assessment with a participatory framework focused on the potential impacts of access restrictions.

Specifically, the Process Framework should include the following elements:

1. *Project background:* Briefly describe the project and components or activities that may involve new or more stringent restrictions on natural resource use.
2. *Participatory implementation:* Describe the process by which potentially displaced persons will participate in determining potential access restrictions, mutually acceptable levels of resource use, management arrangements, and measures to address impacts on affected communities. The roles and responsibilities of stakeholders and the methods of participation and decision-making should be described; decision-making may include the establishment of representative local structures, the use of open meetings, and involvement of existing local institutions, being sure that marginalized/vulnerable groups (such as women and youth) are able to participate in decision-making processes. Methods of consultation and participation should be in a form appropriate for affected communities.
3. *Potential impacts:* Describe the process by which potentially affected communities will be involved in identifying any adverse environmental and social impacts associated with project activities, including:
 - the types and extent of community use (and use by men and women) of natural resources in relevant areas, and the existing rules and institutions for the use and management of natural resources, including customary use rights.
 - the threats to and impacts on the relevant areas from various activities in the area of local communities and other stakeholders (e.g. external poachers and traders, development activities);
 - the potential livelihood impacts on men and women of new or more strictly enforced restrictions on use of resources in the area.
4. *Eligibility criteria:* The eligibility criteria would determine which groups and persons are eligible for assistance and mitigation measures while discouraging ineligible persons, such as opportunistic settlers, from claiming benefits. That is, the criteria may exclude certain affected persons or groups from assistance because their activities are clearly illegal, unsustainable and destructive (e.g., wildlife poachers, dynamite fishers). The criteria may also distinguish between persons utilizing resources unsustainably and opportunistically, and others using resources for their livelihoods, and between groups with customary rights and non-residents or immigrants. The criteria need to account for variations in seasonal use of lands by local communities and pastoralists. The eligibility criteria should also establish a cut-off date.
5. *Measures to assist affected persons to improve their livelihoods:* Describe methods and procedures by which communities will identify and choose potential mitigating or compensating measures to be provided to those adversely affected, and procedures by which adversely affected community members will decide among the options available to them. The measures will seek to improve livelihoods in real terms to pre-displacement levels, while maintaining the sustainability of the park or protected area. However, in some circumstances affected communities may agree to restrictions without identifying one-for-one mitigation measures as they may see the long-term benefits of improved natural resource management and conservation. Possible measures may include:
 - special measures for recognition and support of customary rights to land and natural resources
 - transparent, equitable, and fair ways of more sustainable sharing of the resources

- access to alternative resources or functional substitutes
 - alternative livelihood and income-generating activities
 - health and education benefits
 - obtaining employment, for example as park rangers or eco-tourist guides, as well as in wider project functions, such as stakeholder engagement, technical advising or monitoring and evaluation
 - technical assistance to improve land and natural resource use, and marketing of sustainable products and commodities.
6. *Conflict resolution and grievance mechanism:* Describe the process for resolving disputes relating to resource use restrictions that may arise between or among affected communities, and grievances that may arise from members of communities who are dissatisfied with the eligibility criteria, community planning measures, or actual implementation. Procedures should take into account local dispute resolution practices and institutions.
7. *Implementation and monitoring arrangements:* Describe the implementation arrangements, including activity timetable and the roles and responsibilities of different stakeholders, such as the implementing partner, affected communities, and relevant government agencies. Provide clear delineation for administrative and financial responsibilities under the project. Describe arrangements for participatory monitoring of project activities and the effectiveness of measures taken that seek to improve incomes, livelihoods and living standards.
8. *Costs and budget:* An appropriately costed plan, with itemized budget sufficient to satisfactorily undertake the activities described, including financing for livelihood enhancement measures, participatory processes, implementation and monitoring arrangements. List sources and flow of funds.

Annex 15: Stakeholders consulted during project development

Date	Name & Role	Comments/Purpose for Contacting
13.04.20	Klychev Mukhtar Sapargalievich Head of the Protection Department of the Kyzylkum State Reserve	Management efficiency assessment (METT) of the Kyzylkum State Reserve
15.04.20	Ministry of Water Resources of the Republic of Uzbekistan Minister - Khamraev Shavkat Rakhimovich	Presentation of the main goals and objectives of the project to the Minister of Water Management. Discussion on coordination of support from the Ministry of Water Resources
16.04.20	Information-analytical and resource center of the Ministry of Water Management of the Republic of Uzbekistan Director: Toirov Odilbek	Obtaining official information on irrigated areas in the project area (by regions and districts)
18.04.20	Matkarimov Oybek, Director of the Lower Amudarya Biosphere Reserve	Assessment of management effectiveness (METT) NABR
18.04.20	Abdurakhmanov Alisher Khaitmuratovich, Director of the Complex Landscape Reserve "Saigachy"	Assessment of management efficiency (METT) of the state landscape reserve "Saigachiy"
18.04.20	Mambetullaeva Svetlana Mirzamuratovna, Professor of the Department of Ecology and Soil Science, Karakalpak State University	Assessment of management efficiency (METT) of the state landscape reserve "Saigachiy"
20.04.20	Yakubov Alisher Committee of the Republic of Karakalpakstan on Ecology and Environmental protection; Chief Specialist of the Inspectorate for Control in the Sphere of Ecology and Environmental Protection	Assessment of the management efficiency (METT) of the Sudochye State Wildlife Refuge
24.04.20	Sultonboy Yuldashev, Khokim Amudarya region	Discussions on project objectives, outputs, targeted areas and alignment with local priorities.
24.04.20	Khairulla Ubaydullaev, Professor, Head of center for Personnel Development at the Karakalpakstan State University	To discuss project activities and potential synergies and explore participation.
24.04.20	Ziyadullaev Zokhid Head of Center for Seed Development of the Republic of Karakalpakstan	Discussions on the project outputs and activities envisaged in Karakalpakstan region, synergies and potential participation in the project activities.
12.05.20	Ministry of Water Resources of the Republic of Karakalpakstan Minister: Uzakov Zhalgas Uzakovich	Presentation of the main goals and objectives of the project to the Ministry of Water Management of Karakalpakstan. Discussion on coordination and support on ensuring timely water supply to irrigated lands and KBAs within Karakalpakstan.
12.05.20	Cabinet of Ministers of the Autonomous Republic of Karakalpakstan Kazbekov Zhusipbek Sdikbekovich - Deputy Chairman of the Council of Ministers of the Republic of Karakalpakstan for Ecology and Development of the Aral Sea Region	Discussed the possibility of Kazbekov to become a representative of the local Government - a member of the Steering Committee of the project and to provide assistance in project activities and events.
13.05.20	Nukus branch of the Executive Committee of IFAS Director - Allabergenov Rashid Ismailovich	Explored and agreed participation of the Nukus branch together with the IFAS Agency in the implementation of specific project activities
14.05.20	Karakalpak Branch of the Scientific Research Institute of Irrigation and Water Problems Branch Director - Kurbanbaev Sagit Erezhepovich	Discussions on the possibilities of participation in the comprehensive inventories and assessments envisaged by the project
14.05.20	Karakalpak Scientific Research Institute of Natural Sciences of the Karakalpak Branch of the Academy of Sciences of the Republic of Uzbekistan (Karakalpak Scientific Research Institute of Natural Sciences KKOANRUz.) Svetlana Mambetullaeva - Senior Researcher	Discussions on the possibilities involvement of the institute in the implementation of specific project activities to assess the water availability and state of biodiversity in the KBAs

Date	Name & Role	Comments/Purpose for Contacting
14.05.20	Amudarya region of Karakalpakstan Farm "Farhodov Asadbek" Director Iskandarov Jurabek Partner of the IFAS Agency for the implementation of the Tomchi mobile application and drip irrigation	Discussion on the possibility of arranging field farm school of the Amudarya region for water conservation on irrigated lands within the framework of the project
15.05.20	Levoberezhno-Amudarya Basin Department of Irrigation Systems Head of Department: Urazov Atakhan Yakubbaevich	To explore participation in the project activities; discussions on BISA participation in ensuring timely water supply to irrigated lands and KRB within Khorezm - within the framework of the project.
15.05.20	BVO "Amu Darya" Head of BVO Amu Darya - Makhrarov Mahmud	Informing about the main goals and objectives of the project. Discussed participation of BVO Amu Darya within the project - as a key partner for information on the water situation in the project area.
15.05.20	Turaev Mukhtar, Bukhara State University. Lecturer at the Department of Ecology, Faculty of Natural Sciences	Discussion of the choice of indicator species and their current state within the OPT "Dengizkul", Bukhara region
22.05.20	Kashkarov Roman Daniilovich Executive Director of the Society for the Protection of Birds of Uzbekistan (UzSPB) - the official representative of Bird Life International	Discussion of the state of biodiversity in Key Bird Areas (IBA) located in the project area. Feasibility / necessity of including them in the territories of the planned protected areas. Raising the protection status of IBA in accordance with the global importance of their biodiversity.
13.06.20	Akimniyazov Erniyaz Deputy Forestry Committee of the Republic of Karakalpakstan	Discussion on the preliminary selection of pilot sites for project activities on sustainable land use in Muynak and Amudarya districts;
15.06.20	Nurekeev Maksud Kamalbaevich Director of the Kipchak State Ileshoz	Discussion on the preliminary selection of pilot sites on the lands of farms and forestry, as well as planning specific measures for the restoration of degraded lands within the framework of the Project;
15.06.20	Dosmanov Rustam Endirbaevich Chief Forester of the Kipchakch State Ileshoz	Discussion on the preliminary selection of pilot sites on the lands of farms and forestry, as well as planning specific measures for the restoration of degraded lands within the framework of the Project;
17.06.20	A. Sattarov Deputy Chairman Council of Farmers	Exploring potential partnership, roles and responsibilities and potential partnership for the implementation of a micro-scheme support for farmers.
18.06.20	Auvezov Farhad Director of the Muinak State Ileshoz	Discussion on the preliminary selection of pilot sites for project activities on sustainable land use in the Muynak region, including on the drained Aral Sea bed.
18.06.20	Shukurberdiyev Tukhtamys Chief Forester of the Muinak State Ileshoz	Discussion on the Land restoration measures promoted by the project
20.06.20	Gritsyna Maria Alekseevna Executor of the Project of the M. Zukkova Foundation together with GIZ and Goskomles "Land use based on the ecosystem approach and conservation of ecosystems in the lower reaches of the Amudarya River.", 2019	Discussion of the recommended measures to prevent the conflict between the Bukhara deer and the local population on the territory of the Nizhne-Amudarya Biosphere Reserve, developed within the framework of the M. Zukkova Foundation Project together with GIZ and Goskomles.
26.06.20	Nishanov Nariman Manager for the preparation of FAO "Sustainable management of forests and pastures in arid ecosystems of Uzbekistan"	Discussion of potential cooperation between the two GEF projects, and joint activities that can contribute to achieving the national LDN target.
30.06.20	Bukhara land reclamation expedition Head of the Bukhara land reclamation expedition - Bozorov Khairidin Razhabovich	Discussed the issues of access of the project to information on amelioration indicators of the irrigated territory of Bukhara region
30.06.20	Davronov Tulkin Farmonovich First Deputy of Amu-Bukhara BUIS	Discussion on potential participation into the project activities;
30.06.20	Bozorov Khairidin Razhabovich Head of the Bukhara land reclamation expedition	Discussion with farmers; Possibilities of creating farmers field schools for irrigated agriculture; The need for training and seminars.

Date	Name & Role	Comments/Purpose for Contacting
30.06.20	Khodiev Murkhon Regional branch of the Ministry of Agriculture; Head of Pasture and Forage Crops Department	Discussion and preliminary selection of pilot sites for project activities on sustainable land use in Alat and Karakul regions; exploring participation of farmers in the project activities;
30.06.20	Nozimov Askar Makhmudovich Bukhara branch of the Council of farmers, dekhkan farms and owners of household plots; The chairman	Discussions on : Water supply issues; Land restoration measures in the project; Opportunities for the development of farmer schools; Questions of the interest of farmers in increasing the yield and participation in the project activities
30.06.20	Rozzakov Uktam Forestry Department of Bukhara Region Head of Bukhara Regional Forestry Department	Discussions on the Land restoration measures; Restoration of pastures by planting saxaul, cherkez, etc.
01.07.20	Meeting with farmers within the framework of field trip to project sites.	Targeted focus groups and discussions on participation in project activities; protected areas and biodiversity friendly practices in buffer zones; selection of project sites.
01.07.20	Gaibullaev Bakhtiyor First deputy khokim of the Karakul region	Targeted focus groups discussions on:
01.07.20	Ravshanov Yakhyo, "NS va EB Korakul n / st" Pump station boshkarmasi	- Presentation of the goals and objectives of the Project; - Discussion of plots for restoration of degraded lands in the Karakul region;
01.07.20	Begandikov Khudoinazar, Director of the Karakul Specialized Forestry	- Possibilities for the development of pasture farming- expanding the range of forage plants, rotation of pastures, etc.
01.07.20	Hasanov Shukhrat, Leading specialist of the district irrigation system	- Exploration of different feasible methods for saving water and preserve / reduce the level of soil and groundwater salinity;
01.07.20	Boboev Abror Sayfullaevich, Karakul regional branch "Ermulkadastr"	- Discussion of water supply issues for biodiversity conservation zones;
01.07.20	Khuseynov Umid, Head of Land Management	- Discussion and preliminary assessment of interest of farms for project activities;
01.07.20	Abdiev Sukhrob, Korakul mahalla	- Discussions on the preliminary selection of pilot sites for project activities on sustainable land use in the Karakul region;
01.07.20	Kuchchiev Dadabek Gofurburkhonovich Farmers Council	- Reasons for the decline in biodiversity;
01.07.20	Begandikov Bobonazar Khudainazarovich, Korakul Specialized State Forestry	- Agreed on the options for applying the most appropriate land degradation mitigation measures to achieve LDN for the pre-selected areas.
01.07.20	Ravshan Rashidovich Ochilov, Head of the Korakul District Inspectorate for Ecology and Environmental Protection	- Agreed to include issues of biodiversity conservation in adjacent protected areas and key sites in the implementation of land use management plans;
01.07.20	Aminov Shokir Murotovich, Korakul State Forestry; chief forester	- Possible ways to increase the level of knowledge among all categories of stakeholders;
01.07.20	Kodirov Komaljon Karimovich, Korakul District Inspectorate for Ecology and Environmental Protection; Chief Specialist	- The needs of the district inspectorate for ecology and environmental protection in material and technical support
01.07.20	Chekiev Khudonazar Bobokulovich, Korakul District Inspectorate for Ecology and Environmental Protection	- Opportunities for the development of farmer schools; - Strengthening the enforcement of environmental legislation;
01.07.20	Ergashev Maruf Nurmatovich Council of the Union of Youth of Uzbekistan of the Korakul region	- discussions over potential limitations of local livelihoods due to potential restrictions and exploration of ways for alternative livelihoods.
01.07.20	Matniyazov Zhasurbek Khairullaevich National Bank	- Banks' interest in dedicating more funds for land restoration and sustainable business models on lands prone to salinization and degradation;
01.07.20	Holov Sobirjon National Bank	- Discussions on options and terms of concessional loans;
01.07.20	Mamirov Tulkin Farkhodovich People's Bank	- exploration of ways to set up a micro-scheme support for farmers
01.07.20	Zirinov Subkhon Agrobank	- The possibility of the banks entering into an agreement with UNDP;
03.07.20	Ismatov Abdullo, Representative of the Alat branch of Agrobank	- Possible options for assistance from the Project in repayment of the farmers' loan

Date	Name & Role	Comments/Purpose for Contacting
	Department of Irrigation Systems of Karakul District Sobirov Asror - Head of Pumping Stations Department	Discussed participation of the AIS in supporting the achievement of the results of Component 1. Will contribute to ensuring timely water supply to irrigated lands and KBAs within the Karakul region and coordinate local project implementers
03.07.20	Discussion with farmers	Exploring openness of farmers towards organization of Farmer field schools of the Karakul and Alat targeted areas on water conservation in irrigated lands; discussions on preliminary selection of project sites; agreement on participation into the project activities and piloting of SLM measures in buffer zones.
03.07.20	Nematova Nargiza Khokim of Alat region	Presentation of the goals and objectives of the Project, alignment with local priorities.
03.07.20	Sobirov Ismoil Deputy khokim for agricultural issues	Opportunities for land restoration and their introduction into circulation.
03.07.20	Department of Irrigation Systems (ISA) of Alat District Ruziev Tulkin - Head of Department	Discussed participation of the ISA in supporting the achievement of the results of Component 1. Will contribute to ensuring timely water supply to irrigated lands and KBAs within the Alat region and coordinate local project implementers
03.07.20	Yangiboev Marif Urinboevich District Department of Investments and Foreign Trade	Presentation of the goals and objectives of the Project.
03.07.20	Ruziev Mamat Razhabovich Specialist of the regional department of land resources and state cadastre	Agreed on the options for applying the most appropriate land degradation mitigation measures to achieve LDN for the pre-selected areas.
03.07.20	Avozov Shokhrukh Toshpulatovich Alat State Forestry	Discussion and preliminary selection of pilot sites for sustainable land use around the state reserve "Dengizkul";
03.07.20	Kokhorov Ubaidullo Rakhmatullaevich, Chairman of the "Marifat" IFI	Targeted focus groups discussions on:
03.07.20	Khamraev Mansur Zhurakulovich, Alat state forestry	- Presentation of the goals and objectives of the Project;
03.07.20	Arabov Dilmurod Nuriddinovich, Alat District Inspectorate for Ecology and Environmental Protection, Biodiversity Department	- Discussion of plots for restoration of degraded lands in the Alat region;
03.07.20	Turaeva Muazzat Journalist of the newspaper "Olot hayoti"	- Possibilities for the development of pasture farming-expanding the range of forage plants, rotation of pastures, etc.
03.07.20	Ruziev Tulkin Irrigation department of Alat region	- Exploration of different feasible methods for saving water and preserve / reduce the level of soil and groundwater salinity;
03.07.20	Ismoilov Tulkin Khalilovich Alat khokimiyat	- Discussion of water supply issues for biodiversity conservation zones;
03.07.20	Nematova Feruza Isamiddinovna, Eski Olot" MFY, Mahalla Committee deals with women's issues	- discussions over potential limitations of local livelihoods due to potential restrictions and exploration of ways for alternative livelihoods.
03.07.20	Rakhmatov Tangri Nasrullaevich, Director of Alat State Forestry	- Discussion and preliminary assessment of interest of farms for project activities;
03.07.20	Igamov Murod, Head of the District Inspectorate for Ecology and Environmental Protection of the Alat District	- Opportunities for the development of farmer schools;
26.08.20	Matekova Gulara Aitmuratovna Karakalpak Scientific Research Institute of Natural Sciences (KCOANRUz); Junior Researcher of the Laboratory of Ecology of Animal World	- Strengthening the enforcement of environmental legislation.
26.08.20	Ametov Yakub Idrisovich Karakalpak State University (KSU), Dean of the Faculty of Biology	Discussion of the choice of indicator species and their current state within the existing and planned protected areas in Karakalpakstan - Sudochoye lake system, Akdarya-Kazakhdarya interfluve, Akpetki lake system.
20.11.20	Caroline Milow, Programme Manager "Green Central Asia- Transboundary Dialogue on climate, environment and security in Central Asia and 250Afghanistan"	Discussions of the punctual interventions of the project in water and biodiversity areas (based on good practices of GIZ project and Michael Shukkov Foundation) and exploration of possible future climate change related actions and synergies with upcoming GIZ led initiatives namely " Green

Date	Name & Role	Comments/Purpose for Contacting
	Mukhabbat Kamalova – Ecosystem based land use and ecosystem conservation initiative in Lower Amudarya Reaches”	Central Asia “ and Aral Sea regional project for Uzbekistan and Kazakhstan.
30.12.2020	Akmal Akramkhanov Senior researcher International Center for Agricultural research in the Dry Areas ICARDA	Discussions on ICARDA’s role in the project and technical expertise needed for the implementation of Component 2.
30.12.2020	Shakhnoza Umarova Country Director Regional Environmental centre for Central Asia CAREC	Discussions on CAREC role in the project execution, national capacities of the CAREC office, MicroHACT assessment, and relevant project portfolio.

Annex 16: Gender Analysis and Gender Action Plan

Gender Analysis

UNDP prioritizes gender mainstreaming as its main strategy to achieve gender equality and women's empowerment. Gender mainstreaming is the process of assessing any planned action in all areas and levels to determine the implication for women and men. It is a strategy for making women's, as well as men's, concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of projects so that women benefit equally. Gender mainstreaming aims to transform unequal social and institutional structures in order to make them profoundly responsive to gender, and, when realized, it ensures that both women and men benefit equally from the development process. It involves much more than simply adding women's participation to existing strategies and programmes. Special attention and action is often required to compensate for the existing gaps and inequalities that women currently face.

The [UNDP Gender Equality Strategy 2018-2021](#) is aligned with the 2030 Development Agenda and UNDP's Strategic Plan. The strategy recognizes gender equality as a human right as well as instrumental to the achievement of sustainable development. It considers women and men as active agents of change and development, not simply beneficiaries and vulnerable groups and it recognizes how working with men and boys is of critical importance to change gender norms and attitudes and achieve gender equality.

The GEF Council approved a new GEF [Policy on Gender Equality](#), in November 2017. The policy outlines the need to address gender equality and promote women's empowerment across GEF operations, and, in particular, in its projects and programs. The policy requires gender-responsive actions, from design to implementation, monitoring and evaluation to ensure that GEF programs and projects are not only designed with a good understanding of relevant gender differences, roles and needs, but also actively pursue activities that contribute to equal access to and control over resources, decision-making, and empowers women and girls.

Both UNDP and the GEF require a gender responsive approach, an approach in which the particular needs, priorities, power structures, status and relationships between men and women are recognized and adequately addressed in the design, implementation and evaluation of activities. The approach seeks to ensure that women and men are given equal opportunities to participate in and benefit from an intervention, and promotes targeted measures to address inequalities and promote the empowerment of women.

Methodology and results

Guided by the *UNDP Guide to Gender Mainstreaming in UNDP Supported GEF Financed Projects*, this analysis has been undertaken with the use of several methodological tools. Principally, a documentary review of policy documents and existing gender reports was conducted to establish the general socio-economic conditions of women and men in Uzbekistan. Disaggregated data and Statistics were sources from the State Committee of Statistics of Uzbekistan. In addition, targeted surveys and discussions with women and women's group in the project regions have also provided context-specific experiences and perceptions of both men and women who live in the project communities. Furthermore, stakeholder meetings and discussions were conducted with technical and professional staff from related government ministries and departments as well as with partner entities and members of non-government, community-based and private sector organizations who provided additional information and qualitative data which aided this analysis. Finally, field and community visits were undertaken in order to observe firsthand, the gendered interactions, and activities at the community level.

The gender related surveys in the pilot districts (Muynak and Amudarya districts of Karakalpakstan and Alat and Karakul districts of Bukhara province) provided information about key social, economic and ecological aspects affecting the lives of men and women and problems with regard to access to and use of natural resources, biodiversity and water.

During the surveys: a sampling size was determined (90 respondents, of which 50% - men, 50% - women, and youth represents 30% of the total sample size), questionnaires were developed with 4 blocks of questions: 1) general information about a respondent (gender, age, region of residence, education, area of activities, income etc.); 2) key social and economic and 3) ecological aspects affecting the lives of people, especially women; 4) impact of people on environment.

A review of experiences generated by development projects in other countries showed that in the course of work under various international projects, rural women shared their innovative practices, for example, of collecting rainwater, as well as the water-saving method of planting on rocky soils, using djessuras (series of small dams for managing rainwater on valley slopes), fegsuas (underground brick tanks for collecting and storing rain and flow water) etc. Focus group surveys among representatives of line ministries and agencies, hokimiyats, communities, partner organizations, NGOs, public organizations and private sector were aimed at collecting quality data.

Gender equality is one of the fundamental democratic principles enshrined in the Constitution of the Republic of Uzbekistan, which proclaims the equality of men and women. Uzbekistan has acceded to more than 60 international human rights agreements and has joined a number of international organizations and conventions dedicated to the promotion of gender equality and the protection of women's rights. The Convention on the elimination of all forms of discrimination against women (CEDAW) was ratified by Uzbekistan in 1995, and the CEDAW National action plans are approved and implemented on a regular basis.

The Law of the Republic of Uzbekistan "On guarantees of equal rights and opportunities for men and women", adopted by the Legislative Chamber on August 17, 2019, was approved by the Senate on August 23 of the same year. The first article of the first chapter reads: "The purpose of this Law is to regulate public relations in the field of ensuring guarantees of equal rights and opportunities for men and women, and prevent discrimination based on gender". The Law on the protection of women from oppression and violence was adopted on August 17, 2019, by the Legislative Chamber of Uzbekistan and approved by the Senate on August 23, 2019, to promote high skilled employment of working women, increase their income and role in family, state and social affairs, as well as to protect their legal, social, economic and spiritual interests. The law provides a set of measures aimed at preventing violence against women. The Criminal Code of the Republic of Uzbekistan sets out various types of punishments for violent acts committed against women (Articles: 103,115,117,121,136). Direct or indirect violation or restriction of equality of citizens is prosecuted under the Criminal Code of the Republic of Uzbekistan (Article 141).

Gender analysis is based on the review of other reports of international organizations in Uzbekistan, as well as in other countries. In particular, the Sixth National Report "On conservation of biodiversity in Uzbekistan" (UNDP and GEF, 2018), the Report "Uzbekistan: Updated gender assessment in the country" (Asian Development Bank (ADB), 2018), the Report "Actualizing the relationship between gender and environment in Tajikistan" (UNDP and UNEP, 2015), the Report "Strength of synergy: Interlinking gender equality, economic development and environmental sustainability" (UNDP, 2013), the Report "Gender Perspectives: Integrating disaster risk reduction into adaptation to climate change: effective methods and experience" (Secretariat of the United Nations International Strategy for Disaster Reduction, 2008), etc.

After studying the experience of the Northern European countries six factors that influenced the development of gender equality policies in Denmark, Norway, Finland, Iceland, and Sweden were identified: 1. Social-democratic orientation of state policy and the creation of a welfare state. 2. Women's access to work and professional development. 3. Representation of women in the public authorities. 4. Creation of an anti-discrimination legislation. 5. Creation of national mechanisms for gender equality. 6. Development of women's movement in the region.

Gender related aspects of the current state of social and economic development in Uzbekistan

This section includes secondary data obtained through desk review of reports of national and international organizations, as well as the results of surveys conducted in the project regions - Muynak and Amudarya districts of the Republic of Karakalpakstan and Alat, and Karakul districts of Bukhara province.

According to the Human Development Index, Uzbekistan is ranked 108th out of 189 countries in UNDP 2018 Report, which puts it in the category of countries with high level of human development. Uzbekistan ranks 64th out of 162 countries in the Gender Equality Index 2018 - this position is obtained due to the high level of education and economic activity of women. In 2014, the Organization for Economic Cooperation and Development (OECD) included Uzbekistan in its Index of social institutions and gender. Uzbekistan took 52nd place among 86 countries outside the OECD and scored 0.1475 points in 2014, which classifies it as a "medium" category country.

Gender indicators are closely interlinked with the indicator of poverty and inter-regional inequality. The share of low income population of the country (poverty) in 2018 reached 9.4%, while in the Republic of Karakalpakstan the figure stood at 23.8% and in Bukhara province it was 7.4%. Despite the current state policy to reduce poverty, there are still issues regarding the status of women and gender equality that need to be addressed, such as asymmetries in property ownership; horizontal and vertical segregation in the labor market, where women are underrepresented in high positions at the decision-making level in all sectors, and employed predominantly in the social sectors of the economy, in seasonal, low-paid, unskilled jobs in the formal and informal labor markets; as well as traditional stereotypes regarding the role of women and men in family and broader society.

The problems of poverty are to a large degree associated with the weak participation of women in political and public life. Since 2004, a 30% quota has been reserved for women in the lists of political parties. According to 2017 data, their number in the Legislative Chamber of the Oliy Majlis amounted to 15%, in the Senate - 17%, the Jokargy Kenes of the Republic of Karakalpakstan - 13%, the Oliy Majlis (Parliament) - 16%, in the Kengashes of deputies: a) of provinces and the city of Tashkent - 12%, b) of districts (tuman) - 23%, among deputy khokims of provinces - 16.6%, districts - 25%. Women are still underrepresented at the decision-making and management levels in all sectors, i.e. they have not yet reached the critical minority of 30% necessary to effectively influence decisions.

According to the results of the gender surveys conducted at PPG stage, the following respondents stated that the regions have a low representation of women: (i) 32% of respondents in the Legislative Chamber of the Oliy Majlis (in Amudarya district of the Republic of Karakalpakstan - 50%, in Alat district of Bukhara province - 50%); (ii) 9% of respondents in the Senate (in Amudarya district of the Republic of Karakalpakstan - 50%, Karakul district of Bukhara province - 17%); (iii) 7% of respondents in the Jokargy Kenes of the Republic of Karakalpakstan (in Amudarya district of the Republic of Karakalpakstan - 50%); (v) 32% of respondents in Kengashes of deputies of districts (in Amudarya district of the Republic of Karakalpakstan - 50%, in Karakul district of Bukhara province - 39%); (vi) 9% of respondents among deputy hokims of province (in Karakul district of Bukhara province - 22%); (vii) 20% of respondents among deputy hokims of districts (in Muynak district of the Republic of Karakalpakstan - 25%, in Karakul district of Bukhara province - 22%); (viii) 25% of respondents among officials in leadership positions in ministries and agencies (in Muynak district of the Republic of Karakalpakstan - 50%, in Karakul district of Bukhara province - 28%).

The next factor is the weak activity of women in the development of civil society. Non-governmental organizations identifying themselves as *women organizations* account for 7% of NGOs in Uzbekistan: 595 (6.8%) of more than 8 700 NGOs registered by the Ministry of justice in 2017. Most of these organizations focus on promotion of social support, health of women and their families, addressing disability issues, development of sports, and improvement of the legal culture of women and the general population. According to the results of the PPG surveys regarding the social activity of women, 60% of respondents noted that there are **no** women's NGOs, including those working in the environmental field, in their area of residence, 29% of respondents said that existing women's NGOs were ineffective.

A survey among specialists from 42 line ministries and agencies revealed the following:

76% of the surveyed specialists familiar with the term "gender" (out of 90 respondents). Of those who familiar with gender issues, 73% consider it important to integrate them in various types of development activities in the country.

To the question "What measures should be taken so that women fully participate in integrated management of natural resources (biodiversity, water, land, forest)?"

39% of respondents indicated the need to increase the number of women (at least to 25% of total number of employees) employed in relevant ministries and departments;

47% of respondents mentioned grants supporting research conducted by women in the field of biodiversity conservation, integrated management of the Aral Sea basin, sustainable land management and increased resilience to climate change;

26% of respondents mentioned the need to train employees of relevant ministries and agencies on strategies, conceptual frameworks and practical tools for ensuring gender equality;

25% of respondents mentioned the need to increase the awareness of the population in the project districts about the gender aspects of environmental problems, periodically cover the topic in the media and on Internet;

22% of respondents mentioned the need to stimulate and support the increase in the number of women-led line ministries, NGOs, farms and businesses;

10% of respondents mentioned the need to create a unified gender-disaggregated data base on the state of water supply and sanitation systems, soil quality and land degradation, etc.

Experience of the North European countries show that participation of women in political life grows in parallel with their access to employment, which in turn is associated with access to education. Women account for 49.6% of the population of Uzbekistan. The gender balance is maintained in the system of primary and general secondary and vocational education; in the field of higher education, significant gender imbalances persist. Among students enrolled in higher education, 38.2% are girls and 61.8% are men. In rural areas, in low income families, choices of higher education can be given to sons, since education in most cases is paid. This can also be due to the reluctance of parents to send their daughters to study far from home for a long period of time (two-thirds of higher education institutions are located in three major cities of the country). The low proportion of women with higher education compared with men is a serious barrier to women's competitiveness in the labor market. In this context, and based on the results of the PPG gender surveys, the main factors limiting women's access to higher education are the following: high cost of a university education contract (86% of the surveyed women and men), low quality of education (10%), and long distances to universities (10%), the reluctance of parents to educate girls (in Karakul district of Bukhara province - 11%), reluctance of girls to get higher education, prioritising marriage (in Alat district of Bukhara province - 13%).

Gendered roles and women participation in the labour market

The share of formally employed women is still lower than that of men: 45.7% and 54.3%, respectively. In the labor market, gender trends are clearly visible: women are largely represented in social sectors (education, healthcare and social services, hospitality and catering) with lower salaries, and men dominate in technical and other, more profitable sectors (for example, construction, finance, industry, transport, communications). According to the PPG conducted surveys, the factors limiting women's employment in labor market in the project districts are: lack of jobs in the official sector (59% of respondents noted this), low pay rates (45%), lack of kindergartens (lack of care for children of working women) (21%).

In the business sector, most women occupy micro- and mini-business segments, mainly due to insufficient financial resources and lack of managerial skills. Most women entrepreneurs in Uzbekistan start business career at the age of about 40, when their children have already grown up and women have enough time and resources to focus on their business. There is also a traditional mentality stating that women are more suited for small business, which, accordingly, affects the behavior of women and limits the scope of their entrepreneurial activity. The breakdown by sectors of female-headed business enterprises: services — 34%, trade — 16%, non-food products — 16%, food products — 9%, agricultural farms — 5%, and other sectors — 21%. Microfinance projects in these areas are a vivid example of the positive impact of sub-loans provided to private women entrepreneurs.

Women in rural areas are much less competitive in the labor market, given the limited number of local formal jobs, lack of required level of education, professional qualifications and skills. They are most often engaged in income-generating activities in small family businesses, such as homestead farming or crafts. Women contribute to family budget by taking care of small gardens and large plots of land. They grow fruits, vegetables or seedlings, look after cattle and poultry, produce dairy products for family consumption and for sale, bake bread, mend clothes for family members, sometimes take orders for sewing from neighbors, etc. Only some of them are gradually shifting to agricultural production; the number of women-headed farms remains low (5%) with significant regional differences (Republic of Karakalpakstan - 14%). Factors limiting the development of female farming are: lack of start-up capital and inability to use property and assets as collateral, since in most cases they are registered under men. Other problems include lack of time management skills, short maturity of available bank loans, limited mobility due to poor access roads, limited public transportation, high cost of fuel and transportation to markets. In areas with shortage of irrigation water, one of the key difficulties is related to drilling of wells, which requires significant financial investments from farmers, regardless of gender.

According to the results of the PPG conducted surveys in the project regions, women are not active in business due to lack of start-up capital (56% of respondents in Muynak district and 67% of respondents in Amudarya district of the Republic of Karakalpakstan, as well as 50% of respondents in Alat district of Bukhara province) and insufficient level of financial and managerial skills (31%). In Bukhara region, to a greater extent, respondents also

complained about poor transport infrastructure and roads, lack of local branches of commercial banks, shortage of water, as well as heavy load of household chores and gender stereotypes about women's role in society.

Due to the social role that society assigns to them, women are involved in unpaid household work, spending about the same amount of time on chores as men spend on productive paid work. In addition, unreliable infrastructure in rural areas coupled with frequent interruptions of electricity and water supply affect how much time women spend for carrying out their traditional social roles in the family. Women very often cannot use household appliances such as washing machines or electric stoves.

According to the surveys, 34% of the respondents reported a high burden of domestic chores on women and children (55% in Muynak district of the Republic of Karakalpakstan and 39% in Karakul district of Bukhara province), 23% of respondents mentioned the need to solve problems with fuel for heating (in Alat district of Bukhara region - 39%), about 14% of respondents mentioned that they have to carry water for household consumption from outside sources (33% in Amudarya district, and 18% in Muynak district), 11% of respondents complained about hard work in personal subsidiary plots and caring for cattle. 21% of respondents also mentioned the lack of consumer services near their houses and 14% of respondents mentioned that shortages of water and constant power surges limit the possibilities of using household appliances.

Sustainable development issues are related to the situation with the population migration. In case of male migration, it was revealed that women-headed families become especially vulnerable, as they had to assume male responsibilities without having equal and direct access to all financial, technical and social resources. Remittances by men from abroad cannot always mitigate the vulnerability of such families.

According to the surveys, 77% of respondents stated that high labor migration in their regions was due to lack of work and low salaries (in Muynak district - 75%, Amudarya district - 100%, in Alat district - 58% and Karakul district - 85%), 18% of respondents reported high labor migration due to poor conditions and poverty (in Alat district - 37%), and 13% of respondents associated labor migration with limited opportunities to start a business (in Alat district – 21% and Karakul district - 20%).

Access and control over resources

There are significant disparities in access to safe drinking water and sanitation facilities between urban and rural areas. Share of population that have access to safe drinking water (2016): in cities - 93.2%, in rural areas - 75.3%. Share of population that have access to sewerage facilities (2016): in cities - 78.7%, in rural areas - 42.1%. In the project areas, according to the results of our surveys, lack of centralized water supply and reliance on trucked water were reported in Amudarya district - 75% of respondents, Alat district - 41% of respondents and Karakul district - 59% of respondents. 40% of respondents reported about low-quality (salinity) of drinking water (59% of respondents in Alat district), 25% of respondents reported the lack of irrigation water.

Lack of water supply system affect women, as they are mainly responsible for delivery of water from various external sources and main consumers and managers of household water and family hygiene. In rural areas, women and children have to make trips for water several times a day. On average, water trips require 22 man-hours per month. Women boil water to make it safe to drink. In winters, they heat water for washing, bathing, as well as for watering livestock. With stable electricity and water supply women would be able to manage their time more efficiently and distribute it between bathing children, washing, cooking and other household chores and have some spare time for productive activities.

Unreliable transport infrastructure creates barriers to employment, negatively affects the quality of provision of social health services and education. For women, it seriously limits the potential for setting up and expanding small businesses, since access to local markets for raw materials, equipment and services, and for sale of their own products, as well as access to training opportunities, information, and nearest commercial bank branches become difficult.

According to the conducted surveys during the PPG, approximately 47% of respondents indicated that there are no asphalt roads in areas of their residence, 68% noted that the roads need repair, 27% mentioned the lack of public transportation.

At the institutional level, women are underrepresented (5-10%) in the matter of energy and water supply utilities, both in lower level positions and among senior and middle management personnel: the majority of economists, engineers and operators in this sector are men. Women mainly work in junior (and therefore lower

paid) technical positions (controllers, laboratory assistants, cleaners). There is a serious gender asymmetry in the staffing of the Ministry of agriculture, where women make up 14.5% of the employees, mainly lower service-related positions or involved as technical staff.

According to the PPG conducted surveys, lack of women involvement in the field of environment and in the management of the natural resources is due to the lack of highly qualified, professional female staff in the environmental sector (64% of respondents noted this), gender stereotypes about women's role in society (20%) which are diminishing their interest in working in this sector (18%); there is also a problem of insufficient managerial skills among women (15%), and they lack full awareness of their rights (12%).

The legislation of the country establishes that women and men have equal rights to own property. However, there are significant gender disparities in actual ownership of real estate. Most houses are acquired by inheritance, where traditionally men are prioritized. Real estate registered in the name of women accounts for 22.3% of the total value of real estate.

Rural households are traditionally headed by men; accordingly, most of the property is registered on their name. Family financial resources are accumulated in the hands of the elderly, usually fathers-in-law, who manage family budget. Limited access to finances and assets significantly affects women's economic opportunities and rights. In recent years, Uzbekistan has implemented efforts to expand rural women's access to housing loans. In 2012-2015, women became officially registered owners of 4 300 (26.5%) standard design houses built in rural areas. In 2016, women received 40.9% (413) of 1 009 new microloans and 46.2% (368) of 796 small business loans issued to home buyers. Improved housing situation in rural areas sharply increased the quality of life of rural communities and reduced household related burden on women, freeing up time, which many women used to organize home-based businesses.

According to the PPG conducted surveys, in the project districts, according to the respondents, there is a shortage of land for construction of private houses (in Amudarya district - 50% of respondents), of multi-apartment buildings (in Muynak district - 44% of respondents), and mortgage loans are not affordable (in Karakul region - 22% of respondents), high interest rates on mortgages (in Alat district – 81% of respondents and in Karakul district –50% of respondents), and there is no social housing for the poor (in Karakul district - 33% of respondents).

An important role in promoting equality is played by the national mechanism for ensuring equal rights for women and men, which implies the presence of structures within the government that address gender equality aspects at governmental level. Good example of national framework for ensuring equal rights for women and men is Sweden's model, where the system consists of the Ministry of equality, the Council of equality, the Ombudsman and the Commission for equal opportunities. Sweden, Denmark and Iceland have ministers for gender mainstreaming and equality, who are responsible for implementing government equality policies.

In 2019, Uzbekistan established a new structure within the Senate of Oliy Majlis - Committee on women and gender equality in order to create decent working and living conditions for women, increase their social protection, socio-economic and political and legal activity. Previously functioning Women's committee of Uzbekistan (which had the status of a public agency) now has been included in the structure of the newly created Ministry for support of mahallas and families (2020). New structure focuses on working with women. Employees of women's committees, mahallas continue their activities within the new structure; their status, working conditions and level of remuneration have significantly increased. Key environmental aspects affecting men and women in the pilot districts are land degradation, limited access to safe drinking water, electricity, road infrastructure and banking etc.

According to the PPG surveys, the state of region's environment is characterized by soil salinization (noted by 70% of respondents), water pollution (44%) and poor air quality (40%), drought (20%) and extreme weather conditions (19%). Due to its current environmental state, land is not suitable for agricultural production (15%) and there is a shortage of irrigated lands (17%) (in Muynak district - 43%), land areas of private farms are not enough for livestock farming (in Amudarya district - 80%, in Alat district – 50% and in Karakul district –71% of respondents).

The lack of hot water was mentioned by 71% of respondents; other complaints were with regard to sewerage (63%), irregular supply of coal (45%), natural and liquefied gas supply (34%), scheduled power outages (51%) or constant power surges (28%). Poor living and environmental conditions affect the health of local population. Spread of endemic goiter, anemia and other diseases due to lack of iodine and vitamins and poor nutrition was mentioned by 44% of respondents in Amudarya district, 63% of respondents in Muynak district, 55% of

respondents in Alat district and 75% of respondents in Karakul district. 32% of respondents noted the spread of infectious diseases due to contaminated drinking water or lack of water and inadequate sanitation.

People also influence the state of environment, land and water. This is evidenced by the surveys in the pilot regions, where 39% of respondents mentioned the deforestation due to lack of district heating (in Amudarya district – 88%), 30% mentioned about air pollution due to use of firewood, pressed dung and coal for heating and cooking, 23% complained about irrational irrigation practices leading to soil salinization and poor regeneration of ground water sources, 5% mentioned overgrazing and destruction of vegetation and forests (in Karakul district - 16%). 34% of respondents noted that the population lacks the awareness of environment conservation, best agricultural practices, use of machinery, quality of seeds and their impact on land degradation, and the importance of proper waste treatment.

Irrational water use, poor sanitation and sewerage

The country's irrigation practices related to cotton production, which was based on unlimited water withdrawal from the main tributaries of the Aral Sea for decades, ultimately led to a sharp reduction in the size of the Aral Sea itself, the spread of dust storms, salinization, economic crisis and loss of natural ecosystems. Most of the irrigated land in Uzbekistan, as well as water-dependent pastures, have been significantly degraded due to poor water management, overgrazing, and irrational and unsustainable water use, which is further worsened by climate change risks.

Negative impact on women:

- lack/absence of clean drinking water (water is brought and distributed among the population), outdated system of water pipes and lack/absence of water for irrigation force women to spend more time with household chores and negatively affect the health of women and children;
- contamination of drinking water, industrial and agricultural wastewaters cause prevalence of gastrointestinal and infectious diseases, burdening women, as they are the primary caretakers in the household;
- saline groundwater causes low yields and negatively affects the quality of agricultural crops, lowers livelihoods and food security;
- key problem in areas with shortage of irrigation water is drilling of wells, which requires significant financial investments from farmers, regardless of gender;
- problems related to unemployment, low incomes, and poverty among women-headed households.

The project's planned intervention to promote "water saving agriculture" and sustainable and wise use of water resources, coupled with comprehensive awareness and education campaign that can touch upon water sanitation and public health as well, is extremely important to raise awareness on the problems and solutions available and start/trigger behaviors changes towards a more responsible attitude towards water use. The project will advocate for women participation in task forces, boards, local committees, that will enable the sharing of their valuable knowledge in natural resources management. This will contribute towards increasing engagement of women in the development of civil society, promotion of public and non-governmental organizations headed by women in the environment sector and altering traditional stereotypes regarding the roles of women and men in family and society, especially in rural areas.

Land degradation

Land degradation resulting from irrational use of pastures and forests and poor management of rangelands lead to food insecurity, land degradation, loss of plant biodiversity and increased desertification.

Negative impact on women:

- land degradation and soil erosion affect the yields and quality of agricultural crops and impacts food security at household level;
- poverty and external labor migration increase in regions with poor rangeland management.
- land degradation is affected by low level of awareness of the best agricultural practices, use of machinery and seeds quality;
- improper/inefficient irrigation practices lead to soil salinization and poor groundwater regeneration;
- overgrazing and destruction of vegetation and forests;
- forest destruction due to lack of district heating networks;

- land degradation is affected by excessive use of pesticides and fertilizers, violation of rules for storage of organic waste;
- air pollution resulting from use of firewood, pressed dung and coal for heating and cooking (deaths caused by carbon monoxide poisoning).

The project will promote sustainable land management practices in productive landscapes surrounding lake, wetland and riparian ecosystems. Integrated land management plans will be developed for 4 administrative districts of the Aral Sea region (Muynak and Amudarya in Karakalpakstan and Alat and Karakul in Bukhara province). The project's micro-grants program will include targeted support for development of sustainable livelihoods with a reduced impact on biodiversity, including measures to reduce competition for feed and water between cattle and wildlife, as well as support for sustainable fishing practices. Integrated gender aspects will be mainstreamed in the project activities, in particular: (i) expansion of microfinance projects and sub-loans for women entrepreneurs; (ii) stimulating an increase in the number of small business enterprises headed by women in the areas of consumer goods production, food production and agricultural production; (iii) increasing the number of female farmers by developing conditions for women to use property and assets as collateral and seed money (addressing the fact that in most cases property is registered on men), developing time management skills, improving knowledge on use of bank loans and marketing and sales management, etc.; (iv) development of women's family budget management skills (family financial resources are accumulated in the hands of men who manage family budget. Limited access to financing and assets significantly affects women's economic opportunities and rights); (v) expanding access of rural women to housing loans (improved housing situation in rural areas sharply increased the quality of life of rural families and reduced the household chores burden on women, freeing up time, which many women may use to set up home-based businesses).

Clearly, both women and men make crucial contributions in commodity value chains, agricultural landscapes and rangelands and forest sectors as farmers, workers, processors and entrepreneurs, and yet women are seldom recognized for doing so, much less empowered to shift toward more sustainable practices. They generally possess fewer assets (land, livestock, and human capital), have less access to productive inputs (seed, fertilizer, labor, and finance), and have less access to rural advisory services (extension, technical trainings) than men (FAO). While integrated landscape management approaches are being pursued for the enhancement of food security and ecosystem services, these efforts are often not inclusive of women and other less empowered groups.

GEF identifies three critical gender gaps in its 'Guidance to Advance Gender Equality in GEF Projects and Programs' (GEF, 2018):

- Unequal access to and control over natural resources
- Unbalanced participation and decision-making in environmental planning and governance at all levels
- Uneven access to socio-economic benefits and services

The gender action plan (developed during project preparation) identifies and supports opportunities to include women in the implementation activities especially in support of an increased participation and leadership in decision-making processes relating to the natural resources and providing opportunities to ensure that economic benefits coming from the sustainable use of pastures and forests resources and land restoration efforts are shared equitably between men and women.

Gender Action Plan

Component/Activities	Indicators	Target	Responsible entity	Period of Implementation
Component 1- Coordinated water management as basis for LDN and conservation				
<ul style="list-style-type: none"> - Advocate for women rights to be recognized as key landscape stakeholders; - Include women and youth from the Lower Amudarya and Aral Sea Basin (LADAB) landscape in the drafting and implementation of the Integrated Water Management Framework - Promote the equal participation of men, women, youth and other marginalized groups in the development of the Integrated Water Management Framework, Integrated Water Management Plans (at district level), and in the public consultations that will be organized under Component 1; - Include women and youth from the 4 targeted districts Alat, Karakul, Amudarya, Moynaq in the drafting and implementation of the LDN compatible, climate smart Integrated Water Management Plans; - Establish and support actions to strengthen capacities for women, men, youth beneficiaries to participate in Amudarya Basin management; - Strengthen capacities of Water Resource Users (WUAs) and advocate for participation of women in the awareness and capacity building activities that target WUAs; - Include gender related topics (e.g. strategy, conceptual frameworks, practical tools for implementing the focus on gender) in the trainings and education seminars of the staff of the Implementing Partner and key stakeholders - Include gender aspects in the watershed assessments (e.g. refer to differentiated ways that women and men access, use, control water, land in the Amudarya watershed; assess challenges women may face in accessing and benefiting from wetlands ecosystem services) 	<ul style="list-style-type: none"> - No of women on Multi-Stakeholder Water Management Task Force - No of women on Multi Stakeholder Committee - Percentage of women participants in the water management related trainings, seminars, round table meetings - Participation of the representatives of grassroots rural women who are engaged formally and informally in water resources management in the project activities - Gender focused assessment chapters included in the overall watershed data collection and water use assessments envisaged under the preparatory project work within Component 1. 	To be refined during Project Inception	UNDP/ IP Project manager PMU staff Gender expert M&E consultant	Over 5 years period

Component 2- Sustainable land management for Land Degradation Neutrality in the target landscape				
<ul style="list-style-type: none"> - Advocate for women rights to be recognized as key landscape stakeholders - Ensure that the representatives of grassroots rural women who are involved formally or informally in pastures/forests use are included in the project activities - Ensure women representativity in the LDN Stakeholder Working Group (LDN SWG) under Output 2.1 and the Integrated Spatial and Land Use Planning District Committee (ISLUPDC), to be set-up under Output 2.2. The LDN SWG and ISLUPDC should consist of local divisions of State Committee on Land Resources, Geodesy and Cadastre (Goskomzemgeodezkadastra), Ministry of Agriculture, Ministry of Water Resources, State Committee on Ecology, district authorities, local communities' representatives, farmers (daikhan farms, individual farmers), women groups. - Enable full and effective consultation and participation of women and men in all stages of pastures/forests management planning and implementation (Output 2.3 and 2.5) and the land restoration activities (Output 2.4). - Provide women and men with equal access to information regarding all aspects of projects - Involve women in all Monitoring and Evaluation (M&E) activities, and provide the necessary tools and knowledge needed for women to engage meaningfully. - Female and male producers, including youth have consistent access to community-based training that promote biodiversity conservation, integrated watershed management, SLM, and resilience building to climate change. - Include gender differentiated aspects in the socio-economic assessments (highlight different ways in which men and women use and gave access to natural resources) and on the assessment of economic benefits derived from the implementation of Sustainable Land Management (SLM) measures within the project Component 2; highlight challenges faced by women, youth and other marginalized groups to benefit from project interventions. - Ensure that the legal and regulatory amendments that will be drafted under Component 2 will seek to address in as much as possible the challenges faced by women, youth and marginalized groups in 	<ul style="list-style-type: none"> - No of women participating in the LDN Stakeholder Working Group (LDN SWG) under Output 2.1 and the Integrated Spatial and Land Use Planning District Committee (ISLUPDC); - No of household headed women participating in the project activities; - Number of economic opportunities created and benefiting women and youth and marginalized people, in pasture management practices, forest management practices, land restoration activities; - Gender sensitive pastures and forests management regime implemented in 4 targeted districts; - Gender sensitive pastures and forests management plan guidelines developed - Gender sensitive integrated land use planning guidelines, manuals developed; 	<p>To be refined during Project Inception</p>	<p>UNDP/ IP</p> <p>Project manager</p> <p>PMU staff</p> <p>Gender expert</p> <p>M&E consultant</p>	<p>Over 5 years period</p>

<p>accessing natural resources and benefiting from subsidies and other existing facilities in agriculture sector.</p>	<ul style="list-style-type: none"> - Percentage of women participants in all of the activities under Component 2. 			
<p>Component 3- Conservation of globally significant Aral Sea Basin biodiversity</p>				
<ul style="list-style-type: none"> - Promote equal participation of men, women in the capacity building activities - Train the State Committee on Ecology and Environmental Protection staff and PAs management units in strategies, conceptual frameworks and practical tools for implementing focus on gender - Enable full and effective consultation and participation of women and men in all stages of component planning and delivery - Ensure meaningful women participation in the stakeholders consultation process during the preparatory and planning work for new PAs designations, community outreach work aiming at improved PAs zoning; - Facilitate the contributions of women, male and female youth in the design and implementation of agreements with local communities for expansion of wildlife feed base and creation of ecological corridors, relocation of wildlife etc - Ensure women representation in the Micro Scheme Task Force - Ensure microgrant criteria allows for the equitable distribution of benefits; paying special attention to cultures and traditional practices that entrench inequality and could exclude women from engaging with the Micro-scheme mechanism s(under Output 3.2.3) 	<ul style="list-style-type: none"> - Increased women leadership in protected areas management - Gender sensitive Training Needs Assessments (TNA) and PAs training curricula - No of women participating in the community outreach events, round table meetings, workshops awareness events and trainings - Percentage of women entrepreneurs/women agricultural producers benefiting from the Micro-scheme on-granting and facilitated access to affordable financing of SLM/ biodiversity friendly agricultural measures 	<p>To be refined during Project Inception</p>	<p>UNDP/ IP Project manager PMU staff Gender expert M&E consultant</p>	<p>Over 5 years period</p>
<p>Component 4- International Cooperation and knowledge management</p>				
<ul style="list-style-type: none"> - Design awareness raising campaigns to explicitly target women and youth and ensure that the content of information materials is explicitly addressing the differentiated ways in which women and men have access to and use natural resources management - Conduct a full gender proofing of the Communication Plan 	<ul style="list-style-type: none"> - Percentage of women and men and women youth participating to the awareness and training events 		<p>UNDP/ IP Project manager</p>	<p>Over 5 years period</p>

<ul style="list-style-type: none"> - Conduct community level research complete with sex disaggregated baseline data and socio-economic information that provides for a comprehensive profile of each community benefitting from the project activities; - Develop and disseminate communication materials that incorporate gender perspectives which informs the wider public about the environmental and socioeconomic benefits of sustainable production practices at household, community, and societal levels. - Ensure that women have the option to participate in all types of training and education, in order to increase their technical capacity to engage in project activities. 	<ul style="list-style-type: none"> - Number of knowledge products produced by the project that are mainstreaming gender dynamics within LDAB landscape - Percentage of awareness and communication events reflecting gender perspectives 		<p>PMU staff</p> <p>Gender expert</p> <p>M&E consultant</p>	
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Annex 17: Knowledge Management Plan

The project's approach on Knowledge Management targets two levels of activities, strategies and products. First, in the country, at local and national levels, the project will actively contribute towards the development of a critical mass of understanding and awareness about prioritized gaps, as reflected by the baseline awareness questionnaires. The communication and capacity building activities will focus on the importance of sustainable water management, wetland ecosystem services, land degradation neutrality and biodiversity friendly production practices around protected areas and how these translates into global environmental benefits while sustaining local livelihoods. The second level is the regional level, where the project will act as an active contributor to supporting negotiations on sustainable regional water management, and will leverage the knowledge generated within the project, by actively supporting mainstreaming of integrated land-water approaches into regional programming.

The project knowledge management strategy builds on three key elements that foster learning and knowledge sharing, placed at the heart of the project's adaptive management and upscaling efforts at local, national and regional levels:

1. Learning from existing lessons and best practices,
2. Assessing and documenting results,
3. Knowledge sharing and communication.

1. Learning from existing lessons and best practices

Although a variety of promising good practices for land management and biodiversity conservation have been implemented recently, a broader uptake of SLM best practices is hampered by insufficient enabling conditions. The project will draw upon best practices of GEF/UNDP "Strengthening the Sustainability of the National Protected Area System by Focusing on Strictly Protected Areas" and will use the protected areas management guidelines and templates developed by the project. Similarly, SLM measures have been tested before and have been proven useful in the course of several projects such as: "UNDP-GEF 'Achieving Ecosystem Stability in Aral Sea and Kyzylkum Desert' (SLM Project)", the "UNDP-GEF Project 'Biodiversity Tugai and Nuratau Biosphere Reserves'", the GIZ Rangeland Management Project, the UNDP GEF Project "Reducing Pressures on Natural Resources from Competing Land Use in Non-Irrigated Arid Mountain, Semi-desert and desert landscapes (LAND project)" as well as other projects supported by World Bank, the EU, ICARDA.

Clearly, these projects have been successful in implementing socio-economic small-scale measures in dryland areas, helping people to improve their livelihoods, however, best practices were limited to the demonstration sites and upscaling elements were not necessarily embedded in these strategies. Barriers persist in terms of integrated water and land management and upscaling of SLM measures in the productive landscapes. Progress has been made with the adoption of the Law on Pastures (in 2019). According to GEF final evaluations "the Law on Pastures developed with the assistance of the LAND project, has increased the attention on pasture management but in order to become effective the law still needs an investment programme to which farmers and herders can apply for resources needed to transform their local businesses to ecologically friendly enterprises; the most important barrier to replicating the best practices under the project is the lack of funds and of technical knowledge ". In addition, the National Voluntary LDN Target Setting process (2019) has drawn attention to the multiple facets of the land degradation, however, there is no awareness, and technical knowledge on LDN at national and local/sub-national levels, and insufficient financial resources targeting SLM measures to achieve LDN. Uzbekistan commitments to LDN, and the recently approved LDN National Voluntary Target, have however opened opportunities for upscaling SLM best practices.

In terms of Integrated Water Management, the project will learn from the EU funded initiative " Sustainable management of Water resources in Rural Areas of Uzbekistan Technical capacity Building" and will build on the knowledge that has been generated by the project and trainings delivered to the water managers, Basin Irrigation System Authorities (BISAs) in the project targeted regions and water users. The project will build on GIZ work on basin level planning through the Project "Water Management and Basin Organizations in Central Asia WMBOCA" and on other previous projects such as "Incorporating environmental flows into water management in the Amudarya river delta"(2003-2007) The project will build on the knowledge generated by the global project ValuES: Methods for integrating ecosystem services into politics, planning and practices (GIZ), which have demonstrated that acknowledgement of the values of ecosystem services brought to different sectors of economy and local livelihoods was key to identify trade-offs among multiple water users. Lessons learned about incorporating environmental flows into water management in the Amudarya River Delta are

considered in the project design. As water wastage in agriculture is linked to water deficits to lakes, wetlands and riparian zones, GIZ project has emphasized the need of coordination and reconciliation among multiple water users, as being the challenge to be overcome, if minimum ecological flow necessary to survival of water-based ecosystem is to be achieved.

In terms of adaptation to climate change, UNDP together with the NIM Implementing Partner, will ensure coordination and synergies of the proposed project activities mainly with the one ongoing parallel project "Developing climate resilience of farming communities in the drought prone parts of Uzbekistan." This project is funded by the Adaptation Fund and it is expected to be still operational during the planning phase of the proposed project, if not beyond. As the adaptation project focuses on small-scale subsistence farming practices in Karakalpakstan, Component 2 of the proposed project is of direct relevance both in the geographical and sectoral scope. The proposed project will build on the adaptation project's work with the small-scale (Dekhan) farmers to introduce climate resilient farming, along with land and water management practices.

In terms of raising awareness of the local natural resource users, there are lessons learned and good practices derived from international projects that have been successfully implemented in the project target areas (Muynak and Amudarya districts of Karakalpakstan and Karakul district of Bukhara province) and some elements are included in the Project's Draft Communication Plan.

MSF/GIZ/State forestry committee of Uzbekistan Project "Ecosystem based land use and ecosystems conservation along the lower reaches of Amudarya" highlights that for best results the projects should ensure that (i) the local population and local authorities are informed about ecosystem management models and available solutions to problems; (ii) are informed about ecosystem services and economic assessments showing the benefits of conserving forest ecosystems; (iii) are aware about environmental measures that could contribute to the sustainable development and conservation of forests; and (iv) it is necessary to ensure that relevant policy and decision makers, international organizations and the media are well informed about ecosystem based (EbA) adaptation models and project impacts. The project analyzed the existing communication materials in accordance with CEPA: gaps on communication, education and public awareness in the lower reaches of Amudarya⁷⁰ were identified and recommendations for their improvement were developed.

GEF/UNDP/GoU Project "Conservation of tugai forests and strengthening the PA system in Amudarya delta of Karakalpakstan"(2005-2011)

The successful implementation of the project was facilitated by the active involvement of stakeholders in testing the best practices in sustainable natural resource management. A broad information campaign involving the media and using print and video materials was implemented covering various focus groups. The Visitor center created by the project on the territory of former Badai-Tugay reserve contributed to raising the awareness of stakeholders.

This work has continued under UNDP/GoU project *"Strengthening efficiency and sustainability of newly established Lower Amudarya state biosphere reserve) (2012-2013).*

Apart from its thematic conservation focus areas, *the GEF Small Grant Program in Uzbekistan*, aimed at achieving concrete results with regards to improving living conditions of the local communities. At that, considerable attention was paid to economic assessment of technologies and practices for the sustainable use of natural resources introduced by SGP projects. Results of the assessment were included in information materials to illustrate the real benefits of environmentally friendly practices. Informational materials use infographics for ease of understanding of the material by nature users. SGP continues to actively collaborate with other environmental projects to widen the coverage of communities. Various contests and exhibitions were organized to engage and raise awareness among different focus groups.

UNDP/AF Project "Developing climate resilience of farming communities in the drought prone parts of Uzbekistan", in its public awareness activities, used various types of information dissemination, including publications, animated films, practical guidelines on best practices, television and radio programs in Uzbek, Karakalpak, Russian and English. All materials are distributed through the Climate information center at Uzhydromet and are also available at <http://af.climatechange.uz>. To spread sustainable resource-saving

⁷⁰ GIZ-MSF Report "Analysis of existing communication material according to CEPA: Communication, Education and Public Awareness", 2019

practices, the project created demonstration plots. Training on best practices is provided locally through existing extension centers (for example, Kanlykul farm and dekhkan extension center).

Based on the fact that effective awareness raising among youth and continuous work with educational institutions is the basis for building long-term capacity for the introduction of sustainable land use practices in Uzbekistan, the *UNDP/GEF Project: Reducing Pressures on Natural Resources from Competing Land Use in Non-Irrigated Arid Mountain, Semi-Desert and Desert Landscapes of Uzbekistan (LAND)* was closely cooperating with the Tashkent State Agrarian University on the establishment of "Land Fund of Uzbekistan and its use" Resource Center. The Resource Center serves for consolidation and dissemination of the available success stories, as well as shaping information and education environment that allows the participants of the training process to expend their free access to information, scientific and methodological and technical resources for improved learning. To disseminate the experience and achievements of the project, project information centers were established under the Administrations of Zaamin city in Jizah province and Karakul city of Bukhara province (2014-2017).

GEF/UNDP/GoU project "Achieving Ecosystem Stability on Degraded Land in Karakalpakstan and the Kyzylkum Desert, successfully tested Field agricultural farmer schools (FAS) as a tool for training and involving the local population of the desert regions of Karakalpakstan in the rational use of personal land plots with degraded soils. Trainings took place on the local population's own land plots. Farmers themselves collected data on plant growth and discussed it among themselves and with an instructor who visited them once a month. Gained experiences were shared among other members of the community. As a result, the majority of the population began to successfully grow food on their household plots. At the beginning of the training, only 2 women participated in FAS, however, by the end of the experiment, women and children of each household were actively farming.

Participation in training events of international projects has enabled many farmers to receive some basic knowledge about most important environmental issues and best practices for sustainable management of natural resources. However, trainings remain limited to the project areas and do not have the capacity to trigger other than limited marginal investments into SLM practices. Integrated approaches on land-water and biodiversity is still largely unknown and the fundamental role of wetlands, lakes and riparian areas for the local livelihoods is not entirely understood.

All international projects had paid attention to some extent, at the engagement of women in project activities, which helped to increase the understanding among the local population that gender equality and empowerment of women are essential prerequisites for conserving the environment and ensuring sustainable development.

Given the thematic focus and the main objectives of this project, in general, many experts have noted the necessity to paying attention to the following aspects in order to raise awareness of ecosystem users:

- ✓ raising awareness of local communities living in the immediate vicinity or on the territories of protected areas, buffer and/or productive zones and developing mechanisms for engaging the public in addressing the issues related to protected areas;
- ✓ raising awareness on the biodiversity values of priority areas and the role of biodiversity in the lives of people;
- ✓ raising awareness on the measures that people can take to conserve and sustainably use wetland biodiversity;
- ✓ engaging local communities in the implementation of project activities in order to increase the level of awareness, ownership and interest of the local population in environment conservation activities;
- ✓ addressing the lack of a systematic and integrated approach to raising awareness of various target groups based on developed programs and action plans.
- ✓ Promoting green financing: Private sector, banks and other financial institutions are not actively supporting green events in Uzbekistan, possibly due to a very low level of understanding of the importance of such interventions.

In terms of raising awareness of local and regional authorities on sustainable water management as indicated by the awareness questionnaires conducted at PPG stage and as reflected in the lessons learned of previous projects, decision-makers have basic knowledge about land degradation, biodiversity and climate change^{71,72},

⁷¹ Report on capacity building requirements, GEF/UNDP/GIZ/HM/GoU, "Central Asian Countries Initiative for Land Management".

⁷² Report on capacity building in biodiversity, UNDP/GoU project "National biodiversity planning to support

however, given the project's novelty that lies within its integrated approaches to land and water management in and around protected areas, increasing awareness and technical knowledge is needed. GIZ projects revealed that when engaging in raising awareness of decision makers, it would be helpful to use a dialogue within a mediated workshop on ecosystem service-values matrix. Another tool for raising awareness and engaging decision-makers is developing guidelines, manuals, concepts with focus on integrated land/water management, LDN concept, wetlands ecosystem services, biodiversity and ecosystem conservation considerations. LDN is a relatively unknown concept as indicated by the questionnaires, approximately 70% of the specialists and government employees do not know this concept and how an LDN compatible land use planning in irrigated areas can lead to important water saving in agriculture.

As indicated by the EU Water project, the *Water Users Associations (WUAs) are key stakeholders in any water related interventions, therefore* strengthening the capacities of Water User Associations (WUA) is extremely important. Water use plans of farmers and dekhans, self-governing bodies and other water users are approved by respective water user associations serving them. Water user associations consolidate water consumption plans and draw up water use plans for associations.⁷³ In this way, WUAs play an important role in local water management. The Government of Uzbekistan, recognizing importance of WUAs, among key tasks of the Ministry of Water resources included the need for accelerated development of the activities of WUAs by strengthening their legal status, increasing the role of water user associations in the field of water management, as well as promoting their financial stability⁷⁴. Under these conditions, as one of the prerequisites, comprehensive solution of problems in the Aral Sea region requires a high level of awareness and qualifications of WUAs staff⁷⁵.

Awareness and networking at regional level, and the intended Support to Government, academia and non-governmental organizations in the development and discussion of solutions to the Aral Sea basin issues at the international level.

In light of active international activity in Uzbekistan, related to development of the Aral Sea region and creation of a zone of environmental innovations and technologies, as well as the need to address transboundary water problems, the development of capacities of the parties involved in developing and discussing solutions at the international level is of great importance.

One of the project's main partners will be the International Fund for Saving the Aral Sea (IFAS), created in 1993 by agreement between Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan, serves as the main platform for addressing regional environmental issues in the Aral Sea basin. IFAS Executive Committee was established with the aim of improving socio-economic and environmental situation in the Aral Sea basin. Successful implementation of projects within its framework tells about a rather high competences of its employees. However, to successfully conducting international negotiations and participate in addressing transboundary water issues, there is a need to constantly improve the level of knowledge and capacities in the following areas: organization of multilateral consultations, water diplomacy, compromise seeking mechanisms, priority setting, principles and mechanisms of coordinated water use, and joint goal-oriented planning⁷⁶.

Participation of NGOs and academia in discussing various issues facing the Aral Sea region is increasingly becoming a part of informed decision-making process that takes into account the views of all interested parties. Involvement of women in this process will be actively pursued. In order to actively and efficiently participate in development of such solutions, parties should improve their level of relevant knowledge. As one of the centers for capacity building- the International Innovation Center for Aral Sea Region under the President of Uzbekistan (No. PP-3975 dated October 16, 2018), created with the scientific and technical support of the Islamic Development Bank and the International Center for Biosaline Agriculture (ICBA), will be a key project partner.

Cooperation with the Multi-Partner Human Security Trust Fund for the Aral Sea Region in Uzbekistan (MPHSTF) will ensure dissemination of the best practices in a coordinated and sustainable manner and will leverage project's generated knowledge at regional level programming. The Fund's programming strategy is based on UN

implementation of CBD 2011-2020 Strategic plan in Uzbekistan".

⁷³ Review of water legislation of Uzbekistan, Tashkent, 2018

⁷⁴ Resolution of the President of Uzbekistan № ПП-4486 "On measures for further improvement of water management system" of October 9, 2019.

⁷⁵ Innovative solutions in support of water sector reforms in Uzbekistan, Tashkent, 2018.

⁷⁶ Concept - "Aral Sea region is a zone of environmental innovations and technologies". Discussion paper. Version 2.7, Tashkent, 2020

Human Security Concept and focused on environmental safety - it is expected to implement measures for organizing integrated environmental monitoring, ensuring conservation and rational use of water and land resources through the introduction of innovative methods and technologies, and reducing desertification and salt transfer from the dried up Aral Sea bed, conservation and restoration of biological resources and ecosystems. Cooperation with MPHSTF may also include facilitation and enhancement of regional and international dialogue between donors and Government in addressing the problems of the Aral Sea region and increasing the capacity of national organizations to develop quality project documents and implement projects according to international standards.

The project will learn from NEXUS approach (i.e. interdependence between water-energy-food security) on intersectoral cooperation and planning. In terms of raising public awareness under NEXUS concept cooperation will be explored with EU NEXUS project in Central Asia within the project “ Central Asia Nexus Dialogue: Fostering Water, Energy and Food Security Nexus Dialogue and Multi-Sector Investment”. The evaluation carried out by this project shows that Central Asia lacks the experience of working with this concept; there is a lack of understanding how CA countries can get practical benefits from its use, what prevents the full commitment of the key stakeholders to the NEXUS approach; and there is also a lack of relevant information and information sharing and joint use of the concept by sectors and countries of the region.⁷⁷

This GEF/UNDP Aral Sea project will also coordinate and exchange knowledge and scientific research findings with the GEF/UNDP International Waters Project “Strengthening the Resilience of Central Asian Countries by Enabling Regional Cooperation to Assess High Altitude Glacio-nival Systems to Develop Integrated Methods for Sustainable Development and Adaptation to Climate Change” (GEF ID 10077). The opportunities for knowledge exchange will be used by both projects to strengthen the knowledge base for the achievement of results. The UNDP/GEF Aral Sea project-born research findings will contribute to the GEF/UNDP International Waters project specific focus on assessing the water flow of Amu Darya River especially considering the climate change water shortage predictions. Uzbekistan is one of five countries part-taking in this regional project that will promote and facilitate the establishment/strengthening of national and regional glacier centers and with an eye towards continuously assessing current and future water flow in key rivers, including the Amu Darya, Syr Darya and the Illi River. Both projects will involve IFAS organization, which will further support the coordination. The GEF/UNDP International Waters regional project is fully coordinated with IFAS and will deliver national action plans informed by inter-ministerial dialogues and knowledge and data exchanges and may provide key building blocks for other planned/ongoing projects specific to increasing climate change adaptation and informing management practices.

Finally, when looking at examples of donor interventions (analyzed in this document, or others) that are considered successful by both international actors as well as local partners, a few crucial factors can be identified: (1) building upon and further developing local knowledge, (2) a long-term programmatic perspective, and (3) taking into account the technical-political interdependencies of water management in CA. When considering the lessons learnt in the past, international led initiatives can provide meaningful support to the Central Asian societies on their way to a more sustainable future.

2. Assessing and documenting results

The project team will ensure extraction and dissemination of lessons learned and good practices to enable adaptive management and upscaling or replication at local and global scales. Results will be disseminated to targeted audiences through relevant information sharing fora and networks. The project will contribute to strengthening of the scientific data-base on water ecological flow parameters in Amudarya delta, biodiversity data base on key species and habitats and land degradation information, therefore enabling evidence-based policy making and supporting inter-sectorial coordination and broad stakeholder participation.

Assessment of project results will start with the establishing a baseline. A key element of the project is the PPG stage conducted questionnaires targeting four groups : (i) general public, NGOs, representatives of media (ii) government officials at local and national levels with activities relevant to natural resources management (iii) local natural resources users, farmers, pastoralists, local households; (iv) private enterprises, microcredit organizations, banks. The questions have been prepared to assess awareness on the following key issues:

- Unsustainable water management, uneven distribution of water between different sectors, and shortage of water for natural ecosystems.

⁷⁷ Presentation "Water, energy and food security nexus - requirements, tasks and opportunities for Central Asia", Pre-conference academic session of the Central Asian Conference on Climate Change, Tashkent, April 2, 2019

- Poor land management and degradation of land, wetlands and riparian areas.
- Habitat destruction and inappropriate biodiversity management.

Brief summary of the analysis of the Baseline Awareness Questionnaires conducted at PPG stage

The conclusions drawn from the analysis of the questionnaires have formed the basis for designing the cross-cutting activities under Component 4 of the project. The project will conduct another questionnaire towards the end of the implementation period to assess the level of awareness of the respondents.

On average, the level of awareness on the project's thematic areas, stands between 50 - 55%. This level of understanding of the consequences of unsustainable water and land use leading to land degradation and higher risks of biodiversity loss is inadequate as is the awareness on the benefits of the integrated natural resources management approaches. Analysis of expert assessments, published information materials and responses to questionnaires showed that decision-makers, employees of ministries and departments involved in agricultural and water management and environmental protection, as well as specialists of partner organizations have a certain understanding of the Integrated Natural Resources Management (61%), of ecosystem services provided by wetlands (83%), of water saving technologies (83%) and of technologies to combat land degradation (89%). However, the provided answers are not clear-cut and do not always cover all of the important aspects.

Among the practices of sustainable water management, the main known technology (although not really accessible to all) is the drip irrigation. Practices mentioned for combating land degradation include afforestation and pasture management, although it is not clear if their methods are just heard of or throughoutly known and practiced. Approximately 72% of the surveyed specialists from water and agricultural sectors are not familiar with the concept of Land Degradation Neutrality (LDN). Analysis of the answers related to level of understanding of the importance of wetland and riparian ecosystems in the Aral Sea basin showed that there is a general understanding of importance of their conservation and supply of sufficient water for their survival. However, in order to take appropriate timely measures for conservation of these valuable ecosystems and their efficient management through integrated approaches, it is necessary to increase the knowledge of decision-makers on the ways and methodologies to reconcile water needs among different sectors. Understanding of LDN concept and skills to translate the country's LDN obligations into regular practice are inadequate.

The respondents consider the role of civil society in addressing problems related to environmental protection as "very important" (45%) or "important" (45%), but at the same time 63% of the respondents could not name any NGO working in their region. Regarding the role of the media in addressing problems related to environmental protection, 51% think that it is "very important" and 43% - "important". The level of awareness of journalists and other media representatives about issues related to environmental protection is assessed by 46% as "satisfactory". On the issue of stakeholder engagement, the overwhelming majority of respondents answered that interaction with all stakeholders is necessary - 94%. On the issue of stakeholder engagement, overwhelming majority of respondents answered that interaction with all stakeholders is necessary - 94%.

Given the level of international activities of the Republic of Uzbekistan on the development of the Aral Sea Basin region and the creation of a zone of environmental innovations and technologies in this territory, as well as the importance of addressing transboundary water problems, building the capacities of the parties involved in the development and discussion of solutions at the international level becomes a high priority. Approximately 94% of respondents indicated that important issues related to environmental protection in the Aral Sea Basin should be addressed at the international level. To the question "What actions should be taken to achieve the best results in addressing internationally the issues related to biodiversity conservation, introduction of integrated approach to water management and climate-smart land use?" the answers were distributed as follows: "Building decision-making capacity on environmental issues" - 44%, "Building capacity of employees of the involved organizations in conducting negotiations" - 22%, "Setting up data exchange at the regional level" - 33%, "Organizing dialogue with all stakeholders", including NGOs and the scientific community, - 33%.

The questionnaires' results have shaped the Communication Objectives and the components of the (draft) Communication Plan, which is part of the Knowledge Management Strategy. The change in the level of awareness will be measured by indicators included in the Project's Results Framework. The project includes multiple approaches for knowledge management, analysis and guidance. The project design has included many elements of good practices or lessons learned, derived from previous GEF and non-GEF projects, for example: mechanisms for stakeholders coordination and information sharing in integrated water management, elements that add to the project's sustainability and scaling up of LND/SLM practices; aspects that are addressing challenges identified in previous projects, or including best practices derived from successful projects- these

are but a few examples of how this project is learning from baseline experience. The project's focus during the first part of implementation will be on increasing awareness and technical knowledge, analyses and guidance. Collection and consolidation of lessons learned and good practices will become more prominent at midterm.

The key knowledge management activities and corresponding indicators are summarized in the table below:

Project Strategic Results Framework KM Results Indicators	Outputs/Activities	Type of Knowledge Content or Strategy	Geographic level	Roles and responsibilities	Approx. Budget (USD) and timeliness
<p><u>Indicator 4:</u> Existence of formally approved institutional framework for integrated water management in Lower Amudarya and Aral basin (LADAB) landscape, enforcing revised climate sensitive norms and volumes and timing of water releases among multiple users for 1,050,910 ha irrigated arable land and 957,260 ha of lakes, wetlands and riparian ecosystems, following IWRM and LDN/SLM principles.</p> <p>Target: Integrated Water Management Framework approved and under implementation</p>	<p><u>Output 1.2.</u> Under this output, the project will develop an Integrated Water management framework in LADAB landscape, which will serve as a platform for knowledge sharing, facilitating consensus and participatory decision making among multiple water users. This is an institutional coordination mechanism that will bring together scientists, water managers, water users from Uzbekistan and in the region.</p>	<p>Coordination, knowledge sharing and decision-making platform; knowledge dissemination tools</p>	<p>National</p>	<p>Project team; M&E expert;</p>	<p>\$150,000 Years 1-2</p>
<p><u>Indicator 8 :</u> Level of information necessary for improved integrated water management considering the climate change impacts (e.g. revised water requirements in agriculture sector and correct estimation of ecological flows to maintain lakes, wetlands and riparian zones in LADAB landscape)</p> <p>Target : A new <i>Concept on Water Management and Release to Lakes, Wetlands and Riparian</i></p>	<p><u>Output 1.1</u> The project will establish revised norms and water allocation towards lakes, wetlands and riparian zones that account for climate predicted water deficit. The development of the new Concept on Water Releases to Lakes Wetlands and Riparian Zones will involve a comprehensive data collection, inventory and analysis: (i) water uses and water requirements in agriculture sector, (ii) necessary</p>	<p>Diagnostic, analytical and synthesis communication products and tools</p>	<p>National and sub-national Regional</p>	<p>Project team; M&E expert;</p>	<p>\$200,000 Years 1-2</p>

Project Strategic Results Framework KM Results Indicators	Outputs/Activities	Type of Knowledge Content or Strategy	Geographic level	Roles and responsibilities	Approx. Budget (USD) and timeliness
Zones is shared with. and endorsed by, the Ministry of Water Resources by with water managers.	investments for optimization of hydrotechnical facilities and (iii) water requirements at all lakes, wetlands and riparian zones in Amudarya mid and lower reaches, is completed and accessible to end users and water managers in LADAB landscape				
<p><u>Indicator 14</u> : (KM): Existence of mandatory methodologies (manuals, guidelines) on LDN and SLM measures applicable for practical improvements of land management and experience shared through farmer-to-farmer interaction</p> <p>Target:</p> <p>1 Manual with Guidelines on Establishing LDN sub-national targets (showcasing Karakalpakstan experience)</p> <p>1 Manual with Guidelines on LDN compatible Integrated Land Use Planning</p> <p>2 Guidelines on pastures and forest management planning to</p>	<p>Output 2.1 One of the activities under this output will be to develop a Manual with guidelines for establishing LDN subnational targets and how to include these targets into districts integrated land use planning, encompassing the knowledge generated by the project. The Manual will be institutionalized.</p> <p>Output 2.2 One activity under this output will be to develop an LDN compatible GIS based Land Use Concept ⁷⁸ and will disseminate it to relevant government bodies. The planning document will contain recommendations (including GIS based maps) for different types of land use, given development</p>	<p>Diagnostic, analytical methodologies and technical approaches on LDN regional target setting and LDN integrated land use planning</p> <p>Case studies and Good practices; lessons and diagnostic, on pastures and forests management ; knowledge dissemination products and tools</p>	Sub-national	Project team M&E expert; Local authorities	\$25,000 Years 1-3

⁷⁸ The LDN compatible GIS based land use concept will include landscape (natural and cultural), soil, wildlife, biome maps. Each map will include categories of importance (high, medium, low value) along with sensitivity analysis. The land use concept will balance development priorities (economic and social) with conservation objectives in the area given the current status of ecosystems (habitat status, degree of degradation and sensitivity, available ecosystem services).

Project Strategic Results Framework KM Results Indicators	Outputs/Activities	Type of Knowledge Content or Strategy	Geographic level	Roles and responsibilities	Approx. Budget (USD) and timeliness
<p>achieve LDN, for local natural resources users</p> <p>1 LDN compatible GIS based Land Use Concept</p>	<p>priorities at district level and at local rural settlements level and the potential for ecosystems impact. The project will develop a Manual with guidelines on LDN compatible land use planning at district level, and advocate that these tools will be institutionalized and will serve for replication of project's knowledge and experience.</p> <p>Output 2.3 and Output 2.4</p> <p>One of the activities will be to develop Pastures and Forests Management Planning Guidelines, for the benefit of local natural resources users, forestry enterprises and local authorities.</p>				
<p><u>Indicator 21: (KM):</u> Existence of environmental data on species and habitats, data base available for PAs managers and environmental inspectors, for improved biodiversity management; conservation experience and knowledge on key species and critical ecosystems shared through seminars, workshops, community engagement, conferences,</p>	<p>Output 3.1</p> <p>Under this output, the project is focusing on inventory of species and habitats (to document new PAs designation) and will enrich the knowledge on biodiversity, key species and habitats in the country. The project will contribute to a strengthened national data base and an improved access of the PAs</p>	<p>Environmental data collection; analysis and diagnostic; knowledge products and tools.</p>	<p>Sub-national</p>	<p>Project team; M&E expert; PAs managers; State Committee on Ecology and Environment Protection</p>	<p>\$ 32,000</p> <p>Years 1-2</p>

Project Strategic Results Framework KM Results Indicators	Outputs/Activities	Type of Knowledge Content or Strategy	Geographic level	Roles and responsibilities	Approx. Budget (USD) and timeliness
<p>through S-S exchanges and knowledge products in the region</p> <p>Target:</p> <p>(i) Data base on species and habitats related to existing PAs improved and accessible;</p> <p>(ii) New environmental information collected through inventories at new designated PAs available;</p> <p>(iii) PAs managers have a better access to environmental information and improved based for research and knowledge management</p>	<p>managers to key biodiversity information.</p>				
<p><u>Indicator 22 (KM):</u> Existence of capacity building for environmental inspectors and border officials, PAs staff in Biodiversity management trainings and community outreach events ;</p> <p>Target: 24 trainings and outreach events (30 % female participants)</p>	<p>Output 3.2.2</p> <p>Within this output, the project will conduct more than 20 trainings for PA management staff and authorities. The training sessions will be organized by the Center for Retraining and Advanced Training of Employees, working in the field of Environmental protection, under the State Committee for Ecology and Environment protection.</p>	<p>Capacity building, learning and knowledge dissemination tools</p>	<p>Subnational</p>	<p>Project team; M&E expert; PAs managers; State Committee on Ecology and Environment Protection</p>	<p>\$ 24,000 Years 1-5</p>

Project Strategic Results Framework KM Results Indicators	Outputs/Activities	Type of Knowledge Content or Strategy	Geographic level	Roles and responsibilities	Approx. Budget (USD) and timeliness
<p><u>Indicator 24 (KM)</u>: Degree of environmental awareness of different stakeholders on biodiversity, integrated water management, integrated land management SLM and LDN and benefits for livelihoods</p> <p>Target: Increase relative to baseline over a rolling 5-year period</p>	<p>Output 4.1</p> <p>Under this output the project will conduct a final questionnaire, to assess the change in the level of awareness regarding (i) Unsustainable water management, uneven distribution of water between different sectors, and shortage of water for natural ecosystems; (ii) Poor land management and degradation of land, wetlands and riparian areas; (iii) Habitat destruction and inappropriate biodiversity management and to register any increase in the level of awareness on LDN, SLM, integrated land-water management, wetland ecosystem services.</p>	<p>Diagnostic, analysis, synthesis products and tools</p>		<p>Project team; M&E expert; Task Leader Component 4</p>	<p>\$ 1,600</p>
<p><u>Indicator 25 (KM)</u>: Access to, and sharing of, environmental information by stakeholders</p> <p>Target: Information on the knowledge generated within the project is accessible to different groups of stakeholders through different channels:</p>	<p>Component 4/all outputs</p> <p>Awareness campaign</p> <p>Knowledge products and dissemination tools developed within the Output 4.1.1, Output 4.2.2 to serve the education events and awareness raising campaign for local resource users, and water managers as well as to support technical capacities of government</p>	<p>Knowledge dissemination, diagnostic , analytical, synthesis products and tools</p>	<p>National and sub-national</p>	<p>Project team; M&E expert; Task Leader Component 4</p> <p>Subcontractors (PR/outreach company to implement awareness campaign).</p>	<p>\$ 56,000 Years 1-5</p>

Project Strategic Results Framework KM Results Indicators	Outputs/Activities	Type of Knowledge Content or Strategy	Geographic level	Roles and responsibilities	Approx. Budget (USD) and timeliness
<p>-Printed and translated materials and information, brochures, available handbooks for farmers;</p> <p>-Analytical reports available to support Uzbekistan in negotiations under Integrated Fund for Ara Sea (IFAS) and the UN Multi-Partner Human Security Trust Fund for the Aral Sea Region in Uzbekistan (UN MPHSTF)</p> <p>-Video documentary</p> <p>-Handouts and technical information disseminated during seminars</p> <p>-Project website and social media presence, blogs, moderated dialogues</p> <p>-Available UNCCD/ WOCAT platform; CACILM II platform.</p>	<p>officials participating in regional water negotiations .</p>				
<p><u>Indicator 26 (KM):</u> Number of awareness and training events raising awareness and strengthening technical knowledge level on integrated, biodiversity friendly land-water management and wetlands ecosystem services.</p> <p>30 trainings 4 Farmers Field Schools 20 awareness events</p>	<p>Output 4.1.1/ 4.2.2</p> <p>The <u>awareness raising component</u> under this output will include dedicated events in each targeted district, initially to raise a critical mass of understanding on LDN and the importance to local livelihoods of mainstreaming biodiversity in agricultural practices (awareness raising activities, dissemination of project results will be</p>	<p>Knowledge dissemination, awareness raising, diagnostic , analytical, synthesis, communication products and tools</p>	<p>National and sub-national Regional</p>	<p>Project team; M&E expert; Task Leader Component 4 Subcontractors (NGO/company to implement trainings)</p>	<p>\$74,000 Years 1-5</p>

Project Strategic Results Framework KM Results Indicators	Outputs/Activities	Type of Knowledge Content or Strategy	Geographic level	Roles and responsibilities	Approx. Budget (USD) and timeliness
South-South exchange 5water diplomacy seminars	<p>implemented as per the Communication Plan).</p> <p>The <u>training component</u> will include targeted seminars to increase technical knowledge on pasture management and rotational grazing techniques, water management methodologies and technology and biodiversity friendly practices in buffer and production zones in the PA/KBAs/IBAs surrounding geographies. The beneficiaries are expected to be mainly farmers (dekhan farms), Water Users Associations (WUAs), farmers extension services, rural women/ youth and representatives of local authorities. The project will conduct more than 30 training sessions and farmers field schools and 20 awareness events.</p>				
Indicator 27 (KM): Number of regional water forums under IFAS, to which government counterparts and country representatives with	Output 4.2.1 The project will support technical preparedness and participation of government's representatives in regional negotiations processes	Participation in Regional Water Management Platforms; knowledge dissemination of	Regional	Project team, Task Leader Component 4.	\$12,000 Years 2-5

Project Strategic Results Framework KM Results Indicators	Outputs/Activities	Type of Knowledge Content or Strategy	Geographic level	Roles and responsibilities	Approx. Budget (USD) and timeliness
strengthened technical capacities are participating Target: 3		good practices, diagnostic, analytical, synthesis, communication products and tools.			
	Annual PIR	Documentation and dissemination of lessons and good practices		Project team/ Project manager; M&E expert;	Covered under regular project costs (Years 1-5)
	Midterm review	Documentation and dissemination of lessons and good practices		Project team with support from sub-contracted external evaluation experts	\$30,000 (Year 3)
	Terminal Evaluation	Documentation and dissemination of lessons and good practices		Project team with support from sub-contracted external evaluation experts	\$30,000 (Year 5)

3. Knowledge sharing and Communication

The project information dissemination system will be based on a package of various information thematic products that will contribute to raising the stakeholders awareness on issues related to climate-smart agriculture, biodiversity conservation, integrated natural resource management (ICRM), LDN/SLM, integrated water management. The project will use a mix of information channels, including traditional print and electronic materials, media publications, formal and informal forums and face-to-face meetings, internet sites and forums, and social media. Tailored delivery of information will ensure the most effective, locally available and accessible communication ways for specific audience.

Proposed Communication Plan :The project stakeholders are diverse in terms of knowledge, awareness, cultural background, influence and interests. These include decision makers at the regional and local levels, farmers, local users of resources, the general public, including media, NGOs, representatives of the tourism industry, teachers, border guards, representatives of oil and gas companies, employees of organizations involved in the preparation of international agreements on the Aral Sea Basin, donors, financial organizations, international project consultants, UNDP and other international partners of the project, etc.

The table below summarizes the main stakeholders and communication priorities:

Stakeholder Group (Stakeholder Group)	Role in the project	Communication/information needs	Communication tools to address these needs
Decision-makers, at the regional and local levels: specialists and heads of local administrations, heads and representatives of Water Users Associations and the Council of Farmers, Dekhkan Farms and Owners of Household Lands, BISAs, State Forestry Enterprises and other state institutions	<p>Providing support to and actively participating in project activities</p> <p>Review and adoption of some of the KM products (manuals and guidelines)</p> <p>Support for the implementation of LDN practices in the pilot project areas.</p> <p>Participation in training and awareness events</p> <p>Commitment to ensure sustainable project results</p>	<p>Clear, accessible baseline information to back evidence-based policy making</p> <p>Information materials and briefs about the project's approaches and benefits for environment and socio-economic</p> <p>Information to sensitize public opinion on the importance of addressing integrated wetland management</p>	<p>Policy Briefs</p> <p>Stakeholders coordination mechanism facilitated intersectoral dialogue</p> <p>Information materials on water and land use; Availability of data related to water use in agriculture;</p> <p>Information on the correct irrigation requirements</p> <p>Availability of scientific conclusions on wetlands and lakes water requirements</p> <p>Availability of good practices in IWRM based water management</p> <p>Availability of guidelines and manuals on integrated spatial and land use planning</p> <p>Availability of good practices showcasing LDN compatible sustainable land</p>

Stakeholder Group (Stakeholder Group)	Role in the project	Communication/information needs	Communication tools to address these needs
			management (SLM) measures
Farmers, local users of resources in the targeted areas of the project, around the PAs and agricultural producers living near the PAs	<p>Participation in (and benefiting from) project activities</p> <p>Demonstration of sustainable LDN compatible SLM practices in production zones</p> <p>Agreement on establishing ecological corridors</p> <p>Taking action to maintain wetlands ecosystem services</p> <p>Dissemination of experience, farmer-to-farmer sharing of knowledge.</p>	<p>Information to improve understanding and awareness on the importance of Sustainable Land Management measures (SLM), LDN and wetlands ecosystem services.</p> <p>Information to improve awareness and understanding on PAs, wildlife and conservation requirements and ways of living in harmony with nature</p> <p>Practical on the ground application of SLM and demonstration of benefits</p> <p>Information on available subsidies and affordable financing for SLM</p> <p>Technical knowledge on alternative sources of income to sustain livelihoods</p> <p>Information on practical results on environmental, economic and social benefits of SLM measures</p>	<p>Cooperation and dialogue between all stakeholders and exchange of experience.</p> <p>Small roundtable meetings at village and farm level; discussions with farmers; awareness and training events</p> <p>Quarterly newsletters</p> <p>Guidelines on sustainable pastures and forests management and benefits that can be derived</p> <p>Information materials on the economic, environmental and social benefits and practical application of IPRM in the pilot project areas.</p> <p>Field visits to exchange experiences and demonstrate good practices.</p> <p>Social media posts</p> <p>Radio talk shows</p>
Media, NGOs, representatives of the tourism industry, teachers, border inspectors, representatives of oil and gas companies, scientists etc.	<p>Raising awareness of the general public on issues related to climate-smart agriculture, biodiversity conservation, integrated natural resource management</p> <p>Dissemination of project experience and contribution to the general discussion on selected thematic issues.</p>	<p>General information on key biodiversity values existing in Aral Sea Basin and importance at national, regional and global level</p> <p>Information on wetlands ecosystem services and livelihoods that depend on it</p> <p>Briefs on the benefits of integrated water-land management in arid ecosystems</p>	<p>Web publications</p> <p>Radio and TV talk shows</p> <p>High profile interviews</p> <p>Online media presence</p> <p>Brief information about the project, reports on the achieved project results</p> <p>Documented project good practices</p> <p>Press releases</p>

Stakeholder Group (Stakeholder Group)	Role in the project	Communication/information needs	Communication tools to address these needs
	<p>Contribution to the creation of communication networks among stakeholders</p> <p>Participation in information campaigns</p> <p>Providing legal enforcement of environmental norms</p>		<p>Information thematic publications</p> <p>Social media posts</p> <p>Media forums</p> <p>Good old newspaper articles</p>
<p>Employees of organizations involved in the preparation of international agreements on the Aral Sea basin (IFAS, Ministry of Agriculture and Water Resources, Ministry of Water Resources)</p>	<p>Participation into Water diplomacy seminars</p> <p>Regional water programming</p> <p>Participation in the communication campaigns, dialogues with other stakeholders, webinars</p>	<p>Technical briefs and analytical reports as a basis for the preparation of national contribution to the regional agreements and negotiation processes</p> <p>Available data on water requirements in Aral Sea Basin</p> <p>Available research conclusions</p> <p>Exposure to international good practices in water diplomacy</p> <p>Technical background for water programming in the region</p>	<p>Availability of good practices in IWRM based water management</p> <p>Technical support to regional water programming</p> <p>Events and seminars, international conferences to increase exposure on international experience</p> <p>Information materials for the meetings of the Working Groups on the development of International Agreements.</p> <p>Analytical reports and relevant scientific research conclusions</p>
<p>Donors, financial institutions</p>	<p>Support to the development and implementation of a Micro scheme for farmers livelihoods</p> <p>Participation in the project activities, especially awareness and education on the benefits derived from investing in biodiversity friendly SLM measures</p> <p>Supporting the transition to integrated</p>	<p>Need to invest in training and awareness creation on investments into agriculture that does not deplete soil condition</p> <p>Information on cost benefit of application of climate smart agriculture, biodiversity friendly SLM measures</p> <p>Awareness on tools to address climate risks in their portfolios</p>	<p>Information materials on economic benefits derived from SLM measures</p> <p>Briefs on project results</p> <p>Branded project advertising materials</p> <p>Exposure to international good practices in “Green Banking” – transition to investments into environmentally sustainable and climate</p>

Stakeholder Group (Stakeholder Group)	Role in the project	Communication/information needs	Communication tools to address these needs
	natural resources management	Information on international experience in the implementation of "green financial mechanisms"	resilient financing products Exposure to best practices in climate risk insurance
Development partners, other donor supported initiatives	Synergies and joint activities such as joint awareness and training, upscaling project results;	Information about project results, challenges, progress, achievements, lessons learned and best practices Exploration of potential joint programming opportunities	Web Stories and Blogs Briefs and information materials; participation into project activities; bilateral and round table meetings Documented project good practices Social media posts

The overall proposed objectives of the draft Communication Plan can be summarized as follows:

Goal 1. Raising awareness of stakeholders, their level of knowledge, and understanding of approaches to integrated management of terrestrial, lake, wetland and coastal ecosystems and the main objectives of the project. The implementation of this goal will aim to bridge the knowledge and awareness gaps identified through the key stakeholder surveys conducted during the PPG phase. Achievement of Goal 1 will represent a significant contribution to the implementation of Component 4 and the achievement of final result 4.1 by conducting educational and information campaigns for local users of resources on the key values of biodiversity and approaches to sustainable land use (Output 4.1.1) and organizing an information campaign on sustainable water use focused on local and national decision-makers (4.1.2).

Goal 2. Strengthening communication and collaboration between project stakeholders, as well as between projects key stakeholders and other relevant groups at the country and international levels. According to the survey, 94% of the interviewed specialists in the agricultural and water sectors noted the need for interaction of all stakeholders in the implementation of activities to preserve the lake, wetland and coastal ecosystems of the Aral Sea region, confirming the importance of strengthening coordination between stakeholders. Since the project is multi-focus, well-coordinated work of all partners and target groups of the project is of great importance, which will allow (i) to receive the necessary thematic information when making decisions; (ii) find innovative integrated solutions; (iii) increase trust between the parties involved and will help to ensure that the interests of all interested parties are considered and balanced collaboration, not only at the country level, but also at the international level, is essential to share best practices and contribute to global benefits in terms of negative impacts on carbon sequestration and climate change, biodiversity and the reduction of transboundary water resources.

Goal 3. Development of communication at the project level, ensuring transparency and wide dissemination of its results. The development of communication at the project level will allow not only to establish interaction between the project components focusing on different thematic areas (water resources, sustainable land management, biodiversity and protected areas, LDN, integrated land use planning), but also to establish interaction with the general public. The involvement of the media in the project is of particular importance. In their responses to the questionnaires, more than 90% of the respondents noted the important role of the media in solving problems related to environmental protection. Active media engagement will contribute to raising the awareness of journalists, as well as creating the basis for ensuring transparency and wide dissemination of the results of the project, contributing to its sustainability.

This draft Communication Plan is part of the overall Knowledge Management strategy and it will be updated and fine-tuned during the project inception period. Activities to support communication goals are proposed in the Draft Communication Results Framework below, which will be fine-tuned during the project inception:

Activities	Communication channel	Target group	Indicators	Verification tools
1. Raising awareness of stakeholders, their level of knowledge, and understanding of approaches to integrated management of terrestrial, lake, wetland and coastal ecosystems and the main objectives of the project				
<p>Information: Develop, publish and widely disseminate information materials at the national and international levels to support the implementation of activities to achieve results (Component 4/all Outputs) (KM Indicator 27, Indicator 25) including training events, awareness seminars, media tours, etc.</p> <p>Develop materials to support the preparation of the negotiation process at the international level. Prepare information materials to support thematic events of the project (cross-cutting Components 1-3) related to water resources, sustainable land use, biodiversity and protected areas, LDN, integrated land use planning.</p>	<ul style="list-style-type: none"> • Printed materials • Project website • Questionnaires/survey • Dissemination during meetings, seminars and other project activities • Social media distribution • Awareness events • Education seminars 	All interested parties	<ul style="list-style-type: none"> • Number and type of copies of information products • The number of people and organizations that received information products of the project in hard copy, in electronic form or having access to them online. • Number of awareness events and education seminars • Number of participants (gender disaggregated) 	<ul style="list-style-type: none"> • Copies of developed materials • Information material distribution sheet
<p>Results dissemination: Document and widely disseminate project success stories, analytical briefs and other knowledge products, lessons learned and best practices (KM Indicator 8; KM</p>	<ul style="list-style-type: none"> • Printed materials available in local languages • Project website • Distribution (handouts) during meetings, seminars and other project activities 	<ul style="list-style-type: none"> • Implementation partners • Donors • Private entrepreneurs and private sector representatives 	<ul style="list-style-type: none"> • Number and type of copies of information products • Number of gender sensitive knowledge products disseminated • The number of people who have access to these documents. 	Printed and electronic copies of documented information

Activities	Communication channel	Target group	Indicators	Verification tools
Indicators 14; KM Indicator 21; KM Indicator 24; Indicator 26) in print and electronic format, including information brochures on SLM / water conservation measures, land reclamation approaches on marginal saline lands, alternative livelihoods on the farm level, business planning models at the farm level, water saving technologies at the farm level and pasture management at the farm level, etc., highlighting the economic and environmental benefits of these measures (under Outcome 4.1.1).	<ul style="list-style-type: none"> • Distribution via e-mail • Distribution via major news channels (radio and TV) • Distribution via KM platforms • Small round table meetings with local communities representatives 	<ul style="list-style-type: none"> • Journalists and Reporters • Scientists and teachers • All interested parties 	<ul style="list-style-type: none"> • Number of best practices documented and hosted on knowledge platforms 	
Development, promotion and regular updating of the project website with an interactive feedback system to provide stakeholders and the public with the knowledge gained during the project (under Output 4.1.1 and KM Indicator 25).	<ul style="list-style-type: none"> • Project site 	<ul style="list-style-type: none"> • All interested parties 	<ul style="list-style-type: none"> • Developed project website • Number of site visits • The amount of information uploaded to the site 	<ul style="list-style-type: none"> • Website • Site visit statistics • Copies of uploaded information
Development and dissemination of a project message through social networks (Telegram) and thematic groups (Pasture Users Group, Water Users Group, etc.) (within the framework of	<ul style="list-style-type: none"> • Social networks 	<ul style="list-style-type: none"> • All interested parties 	<ul style="list-style-type: none"> • Number of participants in thematic groups Telegram (gender disaggregated) • Number of messages sent via social media • Number of responded users 	<ul style="list-style-type: none"> • Copies of messages • Records of responses to these messages

Activities	Communication channel	Target group	Indicators	Verification tools
Outputs 4.1.1, 4.1.2 and KM Indicator 25).				
Preparation of short informative documentary videos and recommendations on specific aspects of the project, including for presentation at final conferences of the project. Facilitating the production and distribution of thematic videos (under Outputs 4.1.1, 4.1.2 and KM Indicator 25)	<ul style="list-style-type: none"> • Electronic media, including knowledge hubs • Project site • Social networks 	<ul style="list-style-type: none"> • Donors • Government representatives • Local people and local communities 	<ul style="list-style-type: none"> • The number of short video products prepared with the participation of the project • Number of gender sensitive knowledge products developed and disseminated • Distribution list 	<ul style="list-style-type: none"> • Documentary • Copies of short video products
Promotion of information initiatives carried out in the framework of the country's implementation of international agreements - such as the CBD, the CCD, the UNFCCC, in order to improve the visibility of individual project activities. (linked to Outputs 4.1.1, 4.1.2, 4.2.1 and KM Indicator 25 and 26).	<ul style="list-style-type: none"> • Project site • Social platforms and blogs 	<ul style="list-style-type: none"> • All interested parties 	<ul style="list-style-type: none"> • Number of cases of participation in information initiatives • Number of prepared materials 	<ul style="list-style-type: none"> • Copies of prepared and used materials • Number of broadcasts.
Providing audio-visual communication support for KM activities such as workshops, meetings, conferences (20 information events, 2 outreach events with FAO (under Output 4.1.1) and an awareness campaign for water managers (Output 4.1.2), educational and information workshops	<ul style="list-style-type: none"> • Printed handouts • Project website • Social platforms • Small round table meeting at village level 	<ul style="list-style-type: none"> • All interested parties 	<ul style="list-style-type: none"> • Number of events provided with visual aids 	<ul style="list-style-type: none"> • List of manufactured products • Event minutes

Activities	Communication channel	Target group	Indicators	Verification tools
(Output 4.2.2)) (KM Indicator 26)				
Preparing handouts for project awareness raising activities (launch events, awareness raising seminars, water diplomacy conferences, media forums, field visits, final project conferences, etc.) and providing translation (4.1.1, 4.1.2) (KM Indicator 26)	<ul style="list-style-type: none"> Printed information materials Translated materials Moderated discussions during small round table meetings and focus groups 	<ul style="list-style-type: none"> All interested parties 	<ul style="list-style-type: none"> Number of events provided with visual aids Number of translated materials 	<ul style="list-style-type: none"> Number of awareness raising activities carried out Copies of handouts Copies of translated materials
2. Strengthening communication and collaboration between project stakeholders, as well as between project stakeholders and other relevant groups at the country and international levels.				
Create a list of project stakeholders and their contacts, determine the priority channel of communication with them (phone, e-mail, social networks) and an alternative source of communication (within the framework of Results 4.1.1, 4.1.2, 4.2.1, 4.2.2) and support any stakeholder coordination mechanisms set up by the project (Output 1.1/1.2 and Output 2.1/2.2) (Indicator 4)	<ul style="list-style-type: none"> Official websites of interested parties Participant Lists Personal contacts of project experts 	<ul style="list-style-type: none"> Project staff 	<ul style="list-style-type: none"> Number of contact points 	<ul style="list-style-type: none"> List of stakeholder contact details

Activities	Communication channel	Target group	Indicators	Verification tools
Development and regular updating of a mailing list of individuals, networks and groups who will receive communication materials of the project (under Outcomes 4.1.1, 4.1.2 and Indicator 4; Indicator 21; Indicator 22; Indicator 25)	<ul style="list-style-type: none"> Electronic database 	<ul style="list-style-type: none"> Project staff 	<ul style="list-style-type: none"> Number of stakeholders on the mailing list 	<ul style="list-style-type: none"> Copy of the list
Promote digital campaigns to raise awareness and participation for local and national decision-makers and professionals in the water and agriculture sectors (under Outcome 4.1.2) and KM Indicator 8.	<ul style="list-style-type: none"> Project website Social media platforms 	<ul style="list-style-type: none"> All interested parties 	<ul style="list-style-type: none"> Number of participants in digital companies Number of cases by interaction 	<ul style="list-style-type: none"> Documents confirming the interaction (copies of materials, reports, minutes, etc.) Minutes of events
Providing communication support and participation in thematic international conferences, seminars, including the preparation of information visual materials for presentations and poster presentations(KM Indicator 26)	<ul style="list-style-type: none"> Printed materials for conferences and seminars Distribution at events Project site Social media platforms 	<ul style="list-style-type: none"> All interested parties 	<ul style="list-style-type: none"> Number of information products Number of international events provided with communication support 	<ul style="list-style-type: none"> Event minutes
3. Development of communication at the project level, ensuring transparency and wide dissemination of its results				
Creation of initiative groups and a group of volunteers to organize and disseminate information to exchange knowledge and experience at the country level and implement project activities on	<ul style="list-style-type: none"> E-mail correspondence Project website Social networks 	<ul style="list-style-type: none"> Students Locals NGO activists 	<ul style="list-style-type: none"> Number of participants in initiative groups and groups of volunteers (gender disaggregated) Number of participation in project activities 	<ul style="list-style-type: none"> Documents confirming the support of the events (copies of materials, reports, minutes, etc.)

Activities	Communication channel	Target group	Indicators	Verification tools
public involvement (cross-cutting Components 1-2)				
Creation of a list of experienced translators and their contacts for translating information materials into local and English languages (cross-cutting Components 1-4)	<ul style="list-style-type: none"> • Roster UNDP 	<ul style="list-style-type: none"> • Project staff 	<ul style="list-style-type: none"> • Number of translated materials • Number of people who received these materials 	<ul style="list-style-type: none"> • Copies of translated materials
Production of high quality branded promotional materials with project identification and their distribution to stakeholders at events and meetings, including project banners, notebooks, pens, USB, key rings, calendars, folders, etc. (KM Indicator 25)	<ul style="list-style-type: none"> • Printed and manufactured materials • Distributing them at project events 	<ul style="list-style-type: none"> • All interested parties 	<ul style="list-style-type: none"> • The number of types of materials produced and the number of issued copies of each type 	<ul style="list-style-type: none"> • Copies of promotional materials • Distribution list
Development and continuous updating of a directory of journalists and reporters who deal with environmental issues within the framework of the project aimed at attracting partners from the media (under Output 4.1.1).	<ul style="list-style-type: none"> • Electronic database 	<ul style="list-style-type: none"> • Project staff 	<ul style="list-style-type: none"> • The number of journalists and reporters listed and the number of media types they represent 	<ul style="list-style-type: none"> • Data base
Promotion of media forums and competitions at the national level for journalists and reporters interested in environmental issues in order to improve their understanding, contribute to the improvement of journalistic products (articles,	<ul style="list-style-type: none"> • Personal meetings • Interaction by email • TV and radio studios, newspaper offices • Social networks 	<ul style="list-style-type: none"> • Journalists and Reporters • Other interested parties 	<ul style="list-style-type: none"> • Number of journalists and reporters participating in project activities • Number of media materials released 	<ul style="list-style-type: none"> • Copies of materials published in the mass media prepared by participants in forums, competitions, etc. • Recordings of television and radio broadcasts.

Activities	Communication channel	Target group	Indicators	Verification tools
reports, TV and radio broadcasts, discussions, interviews, etc.) and mobilize them to write thematic articles on the key thematic issues of the project and on the activities of the project (Output 4.1.1 and KM Indicator 25).				

No.	Tool	Developer	Available platform for synergies and knowledge sharing	Intended use in project activities
1.	A Biodiversity Communications Handbook	CBD	https://www.cbd.int/cepa/toolkit/2008/doc/a%20biodiversity%20communication%20handbook.pdf	Support for communication project activities
2.	Communication for Development Toolkit	FAO	http://www.fao.org/communication-for-development/en/	Support for communication project activities
3.	Information portal on climate change in Central Asia	CAMP4ASB	http://www.ca-climate.org/	Awareness raising and education
4.	Network of water management organizations in Eastern Europe, Caucasus and Central Asia	NWO EECCA	www.eecca-water.net	Awareness raising and education
5.	Central Asia Water and Ecology Knowledge Portal	SIC ICWC	http://cawater-info.net/	Awareness raising and education
6.	Global Land Outlook	UNCCD	https://www.unccd.int/actions/global-land-outlook-glo	Awareness raising knowledge sharing
7.	World Overview of Conservation Approaches and Technologies	UNCCD	https://www.wocat.net/	Awareness raising knowledge sharing
8.	Site of the project on knowledge management in the field of SLM	ICARDA	http://www.cacilm.org	Awareness raising knowledge sharing
9.	Ecoservices case studies	ValuES project	https://www.arcgis.com/apps/MapJournal/index.html?appid=a64d4f5c870f44729858a639cb06928b	Education and knowledge sharing

Monitoring of the implementation of the Communication Plan will be carried out on an ongoing basis to allow for adaptive amendments by improving the effectiveness of activities and relevance in achieving the set goals. The Task Leader responsible for Outcome 4 assisted by the M&E expert will monitor the overall KM indicators and implementation of the Communication Plan. The developed products will be evaluated for the quality of content and correctness of language, and the relevance of the messages to each group of stakeholders,.

Monitoring and evaluation will use a combination of indicators identified in the strategic framework and the following tools:

1. After the completion of the activity, conduct an analysis to identify gaps and plan improvements in future communication activities.
2. Reviews and monitoring of the press to assess the accuracy and appropriateness of media coverage of information related to project activities, provide reviews to management and organize media feedback, and improve approaches to interaction with the media.
3. Monitoring and moderating publications and comments about the project on the Internet and social networks.
4. Regular tracking of the volume and distribution of communication products.
5. Polls of public opinion on communication activities.

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Results of questionnaires analysis

«Conservation and sustainable management of lakes, wetlands and riparian corridors as pillars of a resilient and land degradation neutral Aral basin landscape supporting sustainable livelihoods»

METHODOLOGY

The following methodology was applied in carrying out the activities under Outcome 1 of the ToR:

1. Development of four questionnaires.

The questionnaires have been developed with a view to assessing the baseline situation with regard to the awareness of stakeholders on issues related to water and land resources and biodiversity, as well as their interdependencies and existing opportunities for integrated resolution of the emerging problems.

Each questionnaire has been developed with a focus on a different target group:

Group 1 - government and local organizations, general public, NGOs, representatives of the media;

Group 2 - government and local organizations whose activities are related to agricultural and water management issues;

Group 3 - users of natural resources, farmers specializing both in the cultivation of crop-plants and livestock, owners of household plots, etc.

natural resource users, farmers, forestry sector workers, etc.;

Group 4 - private enterprises, microcredit organizations, banks.

The questions have been prepared to assess awareness on the following key issues:

- Unsustainable water management, uneven distribution of water between different sectors, and shortage of water for natural ecosystems.
- Poor land management and degradation of land, wetlands and riparian areas.
- Habitat destruction and inappropriate biodiversity management.

The questionnaires have been designed with basic vocabulary and optimal scope so that their filling out by respondents would not take much time.

The questionnaires were distributed to stakeholders through relevant organizational channels - ministries, hokimiyats, farmers' councils, as well as local experts on land use planning, sustainable livelihoods and public engagement in Alat and Karakul districts of Bukhara province and in Amudarya and Muynak districts of Karakalpakstan.

At local level, the questionnaires were distributed through the administrations of the following project target districts: Muynak and Amudarya districts in Karakalpakstan and Alat and Karakul districts in Bukhara province, and local project consultants.

The questionnaires were drawn up with the support and contributions of the project experts and included some gender aspects.

2. Analysis based on processing of the results of the questionnaires, consultations with the project experts and a review of information sources relevant to the thematic areas.
3. Use of the conclusions of the analysis for development of Component 4 "**International cooperation and knowledge management**" and determining the baseline awareness of key stakeholders.

ANSWERS TO QUESTIONNAIRE 1

Specialists of stakeholder ministries and agencies provided 91 responses to **questionnaire 1**

Table 1.

Question No.	Question/answer options	Number of responses	%
1.	How old are you?		
	21-40	69	76
	41-60	22	24
2.	Education?		
	Elementary school	0	0
	High school	0	0
	Secondary education	5	5
	Higher education	86	95
3.	To which group you belong?		
	Male	18	20
	Female	73	80
4.	What is your main occupation?		
	Agricultural worker	0	0
	Administrative worker	73	80
	Service sector worker	4	4
	Student	0	0
	Other (write down) (<i>energy sector worker, environmental specialist, oil and gas sector worker, teacher</i>)	14	15
5.	Are you familiar with the concepts?		
	Biodiversity	64	70
	Protected area	74	81
	Ecosystem services	41	45
	Land degradation	39	43
	Unfamiliar	2	2
5a	From what sources have you learned about these concepts?		
	Mass media (newspapers, magazines, TV, radio, etc.)	46	51
	International projects	7	8
	Books, research articles	28	31
	Familiar due to professional activity	33	36

Question No.	Question/answer options	Number of responses	%
	Internet	58	64
	Conferences, workshops, seminars	19	21
6.	How important, in your opinion, is conservation of biodiversity, ecosystems and ecosystem services for the development of our country and your region?		
	Very important	59	65
	Important	32	35
	Somewhat important	0	0
	Not important at all	0	0
7.	Does the state of biodiversity have an impact on.... ?		
	Environment	88	97
	Your wellbeing	16	18
	Economy	27	30
	Living standards of the population	38	42
	Health of the population	58	64
	Culture	22	24
8.	What factors (aspects) negatively affect the conservation of biodiversity?		
	Insufficient water resources	60	66
	Economic development	31	34
	Land degradation	35	38
	Climate change	58	64
	Natural hazards (droughts, floods, mudflows, etc.)	47	52
	Anthropogenic pressure	25	27
9.	How do you assess the general level of awareness of people who you know (for example, colleagues/fellow students) about biodiversity?		
	Very high	5	5
	High	24	26
	Satisfactory	51	56
	Low	11	12
10.	How do you assess the level of awareness of various sectors of society about the problems related to climate change and measures to address them?		
	Very high	2	2
	High	18	20
	Satisfactory	52	57
	Low	17	19
11.	Are biodiversity conservation measures taken at the national level sufficient?		
	Yes	23	25
	No	37	41
	Don't know	31	34
12.	What measures can you suggest (consider the most effective) for biodiversity conservation in your region?		
	Create protected areas	61	67
	Improve water management	71	78
	Improve pasture management	23	25

Question No.	Question/answer options	Number of responses	%
	Improve awareness and knowledge	54	59
13.	In your opinion, biodiversity conservation activities should be carried out by a responsible organization (State Committee for Ecology) or interaction with other organizations and stakeholders is necessary?		
	Only State Committee for Ecology	5	5
	Interaction is necessary	86	95
13a	What government organizations and other stakeholders need to be engaged to address biodiversity-related problems?		
	Ministry of agriculture	74	81
	Ministry of water resources	74	81
	Goskomzemgeodezcadastre	45	49
	State Forestry Committee of Uzbekistan	72	79
	Academy of Sciences	57	63
	Universities	37	41
	Civil Society	47	52
	Other (write down) (Ministry of energy, hokimiyats, mahalla, Ministry of industry and construction, Uzbek Republican Committee for Geology and Mineral Resources)		
14.	What is integrated management of natural resources (water, land, forest, biodiversity)?		
	Have answer	50	55
	Don't have answer	41	45
15.	What actions need to be taken in order to implement integrated management of natural resources (water, land, forest and biodiversity)?		
	Government initiative	51	56
	Use of resource-saving technologies	69	76
	Raising awareness of the general public	55	60
	Additional incentives	43	47
	More microloans for farmers	18	20
	Other (specify)(improve legislation, development of agricultural clusters)		
16.	What water saving technologies do you know?		
	Have answer	67	74
	Don't have answer	24	26
17.	What technologies do you know to combat land degradation??		
	Have answer	28	31
	Don't have answer	63	69
18.	Are you familiar with the term "gender"?		
	Yes	69	76
	No	22	24
18a	How important, in your opinion, to integrate gender issues in various development activities of the country?		
	Very important	14	15
	Important	37	41
	Somehow important	21	23
	Absolutely unimportant	6	7

Question No.	Question/answer options	Number of responses	%
19.	What, in your opinion, is the role of civil society in addressing problems related to environmental protection?		
	Very important	41	45
	Important	41	45
	Not very important	6	7
	Doesn't play any role	1	1
20.	What environmental non-governmental non-profit organizations carry out their activities in your region? Please, name them.		
	Have answer	34	37
	Don't have answer	57	63
21.	How would you assess the level of awareness of NGOs on issues related to environmental protection?		
	Very high	1	1
	High	19	21
	Satisfactory	29	32
	Low	12	13
	Can't assess	26	29
	Don't have answer	3	3
22.	What, in your opinion, is the role of media workers in addressing problems related to environmental protection?		
	Very important		
	Important		
	Not very important		
	Doesn't play any role		
23.	Which radio/television programs, newspapers, magazines, etc., related to environment protection do you regularly read/watch?		
	Have answer	63	69
	Don't have answer	28	31
24.	What do you think is the level of awareness of journalists and other media representatives on issues related to environmental protection?		
	Very high	6	7
	High	22	24
	Satisfactory	42	46
	Low	18	20
25.	What, in your opinion, is the role of ecological tourism in the sustainable development of your region and the country as a whole?		
	Very important	42	46
	Important	34	37
	Not very important	41	45
	Doesn't play any role	3	3
26.	Name the territories located in your region that are already used or can be used for the development of ecotourism?		
	Have answer	55	60
	Don't have answer	36	40

Question No.	Question/answer options	Number of responses	%
27.	What do you think, what is the level of awareness of eco-tourists about the importance of biodiversity conservation??		
	Very high	12	13
	High	34	37
	Satisfactory	30	33
	Low	10	11
28.	What do you think you can personally do for biodiversity conservation in your region?		
	Have answer	49	54
	Don't have answer	42	46

1. 76 % of respondents were in age group from 21 to 40, 24% - from 41 to 60.

2. Almost 95% have a university degree.

3. 80% of respondents are men, 20% - are women.

4. Most of the respondents are government.

5. Most of the respondents are familiar with the concept of "protected area" (81%) and "biodiversity" (70%). Less than half are familiar with the concepts of "ecosystem services" (45%) and "land degradation" (43%).

5a. Most of the environment related information respondents receive from the Internet and the media, and 21% of respondents - from attending conferences, seminars and workshops.

6. All respondents recognize the conservation of biodiversity, ecosystems and ecosystem services as "very important" (65%) or "important" (35%) for the development of the country.

7. Most of the respondents believe that the state of biodiversity has the greatest impact on the environment (97%) and public health (64%). Only 18% of respondents believe that the state of biodiversity affects their personal wellbeing.

8. Most of the respondents believe that insufficient water resources (66%) and climate change (64%) are factors that negatively affect the conservation of biodiversity. Minority indicated "anthropogenic pressure" (27%) and "economic development" (34%).

9. Most of the respondents assessed the level of public awareness as "satisfactory", and only 5% believe that the level of awareness is "very high".

10. Most of the respondents think the level of awareness of various sectors of society on the problems associated with climate change and measures to address them is "satisfactory". This shows that there is a basic level of knowledge on environmental issues that needs to be further expanded.

11. To the question "Are biodiversity conservation measures taken at the national level sufficient?", 41% of the respondents answered that they are inadequate, and a rather large number of respondents (35%) answered that they didn't know, which indicates a lack of public awareness about the measures taken in the country for biodiversity conservation.

12. Among key measures that need to be taken for biodiversity conservation, were indicated "improved water management" (78%), "creation of protected areas" (67%) and "improving awareness and knowledge" (59%).

In addition, among other measures were suggested:

- *rehabilitation of the Aral Sea;*
- *increasing energy efficiency by adopting modern energy-saving technologies in irrigation;*
- *use of renewable energy sources;*
- *introduction of continuous monitoring of the biological system;*
- *optimization of the level of anthropogenic impact on the environment;*

- *reducing the share of industry in GDP and economic development, which will lead to an increase in the share of service sector, save material resources, and reduce the environmental impact.*

13. When asked about the need for interact with other organizations and stakeholders in implementing activities aimed at conservation of biodiversity, the overwhelming majority noted "need for interaction" (95%), whereas 5% of respondents believe that only State Committee for Ecology should deal with these issues. The respondents also noted the need for interaction with other organizations, namely:

- *Ministry of energy,*
- *Ministry of industry and construction,*
- *Mining and Smelting Works,*
- *Uzbek Chemical Industry Agency,*
- *Uzbek Republican Committee for Geology and Mineral Resources.*

They also emphasized the need to engage all enterprises that have a negative impact on the environment, relevant organizations, ministries and local departments, as well as mahallas, hokimiyats, NGOs, the media and communities.

Among the most important partners, most respondents mentioned Ministry of agriculture and Ministry of water resources (81%) and Forestry Committee (79%). Importance of engaging Academy of Sciences was also noted (63%).

14. 55% of all respondents answered to the question "What is integrated management of natural resources (water, land, forest, biodiversity)". That is, almost half of the respondents don't have a complete understanding of the concept of "integrated management of natural resources".

15. Among key actions that need to be taken in order to implement integrated management of natural resources (water, land, forest and biodiversity) respondents named "use of resource-saving technologies" (76%), "raising awareness of the general public" (60%) and "government initiative" (56%). The latter shows the importance of raising awareness of decision-makers who are involved in natural resource management and can become a driving force for environmental initiatives.

Also worth noting that the respondents lack understanding of the importance of micro loans for farmers (20%), which can serve as one of the mechanisms to stimulate the adoption of sustainable best practices in natural resource management.

It should also be noted that even those respondents who could not define IMNS, answered to the question about the measures that need to be taken to implement IMNS, which suggests that many cannot properly formulate this concept or lack information and understanding of these issues.

16. To the question "What water-saving technologies do you know?" answer was given by 74% of respondents, however the overwhelming majority of them mentioned only one technology, namely "drip irrigation".

17. Majority of respondents could not answer to the question "What technologies for combating land degradation do you know?", which suggests that specialists from various ministries and departments lack knowledge on this issue.

18. To assess the respondents' awareness of gender issues, the questionnaire included several gender-related questions. The answers to the questions showed that the concept of "gender" is familiar to 76% of specialists, and 41% and 15%, respectively, believe that it is "important" and "very important" to integrate gender aspects in various activities on the development of the country⁷⁹.

19. Most of the respondents believe that civil society plays an important role in addressing problems related to environmental protection ("very important" - 45% and "important"- 45%).

20. However, 67% of the respondents lack information about the activities of environmental non-governmental non-profit organizations and could not name a single NGO working in the region.

21. To the question "How would you assess the level of awareness of NGOs on issues related to environmental protection?" most of the respondents answered "satisfactory" (32%), 29% - couldn't assess, and 21% - "low".

⁷⁹ Other gender related aspects will be analyzed by the project expert on gender issues.

22. To the question "What, in your opinion, is the role of media workers in addressing problems related to environmental protection?" the absolute majority of respondents answered "very important" (51%), and (41%) - "important".

23. To the question "Which radio/television programs, newspapers, magazines, etc., related to environmental protection, do you regularly read/watch?" answer was given by 69% of the respondents. Most of them noted that they watch national TV programs, as well as international TV channels Animal Planet, National Geographic, Discovery, read magazines and follow eco-news on the Internet.

24. The level of awareness of journalists and other media representatives on issues related to environmental protection was identified by the respondents as mostly "satisfactory" (46%).

25. Although the majority of respondents answered that the role of eco-tourism in the sustainable development of regions and the country as a whole is "very important" (46%) and "important" (37%), a large percentage of respondents (45%) believe that ecological tourism does not play a big role ("not very important").

26. To the question "Name the territories located in your region that are already used or can be used for the development of ecotourism?" 60% of respondents answered, indicating areas with high ecotourism potential throughout Uzbekistan.

27. Level of awareness of eco-tourists about the importance of biodiversity conservation was assessed by the respondents differently. A small majority (37%) believe that the level is "high", 33% - "satisfactory", 13% - "very high", 11% - "low".

28. To the question "What do you think you can personally do of biodiversity conservation in your region?" answer was given by 54% of the respondents, and their choice of actions mainly consisted of growing plants on personal plots.

ANSWERS TO QUESTIONNAIRE 2

40 responses were received to **questionnaire 2** from specialists of government and local organizations, whose activities are related to agriculture and water infrastructure.

Table 2.

Question No.	Question/answer options	Number of responses	%
1.	How old are you?		
	21-40	24	61
	41-60	16	39
2.	Education?		
	Elementary school	0	0
	High school	0	0
	Secondary education	0	0
	Higher education	40	100
3.	To which group you belong?		
	Male	33	82
	Female	7	18
4.	What is your main occupation?		
	Agriculture	22	55
	Water resources	18	45
	Administrative and management activity	0	0
	International cooperation	0	0
	Other (write down)	0	0

Question No.	Question/answer options	Number of responses	%
5.	How important, in your opinion, is conservation of biodiversity for the development of our country and your region?		
	Very important	33	83
	Important	7	17
	Somehow important	0	0
	Absolutely unimportant	0	0
6.	Does the state of biodiversity affect.... ?		
	Environment	40	100
	Your wellbeing	13	33
	Economy	16	39
	Living standards of the population	18	44
	Public health	20	50
	Culture	0	0
7.	What factors (aspects) negatively affect the conservation of biodiversity?		
	Insufficient water resources	16	39
	Economic development	4	11
	Land degradation	13	33
	Climate change	33	83
	Natural hazards (droughts, floods, mudflows, etc.)	13	33
	Anthropogenic pressures	16	39
8.	In your opinion, biodiversity conservation activities should be carried out by a responsible organization (State Committee for Ecology) or interaction with other organizations and stakeholders is necessary?		
	Only by State Committee for Ecology	2	6
	Interaction is necessary	38	94
8a	What government organizations and other stakeholders need to be engaged to address biodiversity-related problems?		
	Ministry of agriculture	27	67
	Ministry of water resources	27	67
	Goskomzemgeodezcadastre	20	50
	State Forestry Committee of Uzbekistan	38	94
	Academy of Sciences	24	61
	Universities	22	56
	Civil Society	20	50
Other (specify) (hokimiyats, MES, international organizations, mahalla)	27	67	
9.	Are you sufficiently informed about issues related to biodiversity conservation, climate change, and land degradation?		
	Yes	24	61
	No	16	39
10.	From what sources you get information about issues related to environment protection?		
	Mass media (newspapers, magazines, TV, radio, etc.)	24	61
	International projects	9	22
	Books, research articles	13	33

Question No.	Question/answer options	Number of responses	%
	Familiar due to professional activity	22	56
	Internet	24	61
	Conferences, workshops, seminars	20	50
11.	What is integrated management of natural resources (water, land, forest, biodiversity)*?		
	Have answer	24	61
	Don't have answer	16	39
12.	What is ecosystems services?*		
	Have answer	33	83
	Don't have answer	7	17
13.	What ecosystem services are provided by lake, wetland and riparian ecosystems of the Aral sea region?*		
	Have answer	33	83
	Don't have answer	7	17
14.	Lake, wetland and riparian ecosystems of the Aral sea region are very important for:		
	Conservation of globally significant biodiversity	33	83
	Sustainable livelihoods of the local population	18	44
	Conservation of landscapes	16	39
	Water resources	13	33
	Climate change resilience	11	28
	Combating land degradation	24	61
	Other	0	0
15.	What measures can you suggest (consider the most effective) for the conservation of lake, wetland and riparian ecosystems of the Aral sea region?		
	Create protected areas	31	78
	Improve water management	16	39
	Improve land management	11	28
	Improve awareness and knowledge	11	28
	Other (specify)	31	78
16.	How important, in your opinion, is it to provide lake, wetland and riparian ecosystems of the Aral sea region with sufficient water?		
	Very important	29	72
	Important	11	28
	Somehow important	0	0
	Absolutely unimportant	0	0
17.	What needs to be considered when providing water for lake, wetland and riparian ecosystems of the Aral sea region?		
	Amount of available water resources	24	61
	Irrigation needs	20	50
	Weather conditions (dry year, wet year)	11	28
	Ensuring the timely delivery of water (regularity, seasonal needs, etc.)	24	61
	Other (specify)	0	0
18.	What water saving technologies do you know?		

Question No.	Question/answer options	Number of responses	%
	Have answer	33	83
	Don't have answer	7	17
19.	What technologies do you know to combat land degradation??		
	Have answer	36	89
	Don't have answer	4	11
20.	Are you familiar with the "Land Degradation Neutrality" concept?		
	Yes	11	28
	No	29	72
21.	At what levels it is necessary to address important issues related to environmental protection in the Aral sea basin?		
	International level	38	94
	Regional level (Central Asia)	11	28
	Local level	0	0
22.	Are you familiar with the term "gender"?		
	Yes	40	100
	No	0	0
23.	What actions need to be taken in order to achieve best results in addressing internationally the issues related to biodiversity conservation, implementation of integrated approach to water resources management and climate-smart land use?		
	Build the decision-making capacity on environmental issues	18	44
	Build the capacity of employees of involved organizations on conducting negotiations	9	22
	Set up data exchange at the regional level	13	33
	Organize dialogue with all stakeholders	13	33
	Other (specify)	0	0
24.	What do you think you can personally do for biodiversity conservation in your region?		
	Have answer	36	89
	Don't have answer	4	11

1. 61% of the respondents of Group 2 were in age group from 21 to 40, 39% - from 41 to 60.
2. Almost 100% of respondents have a university degree.
3. 82% of respondents are men, 18% are women.
4. 55% of respondents are specialists in the field of agriculture, 45% - in the field of water management.
5. 83% of the respondents answered that biodiversity conservation is "very important" for the development of the country, and 17% - "important", which indicates a general understanding of the need to integrate biodiversity conservation in the activities related to agriculture and water management.
6. 100% of the respondents answered that the state of biodiversity affects the "environment", 50% - that it affects "public health", 44% - that it affects living standards of the population, 39% - that it affects the economy, and (33%) - that it affects their own wellbeing. However, none of the respondents understood that biodiversity also affects culture. Thus, the majority are not fully aware about full spectrum of biodiversity's impact on the country's development.

7. To the question "What factors (aspects) negatively affect biodiversity conservation?" 83% of the respondents answered - "climate change", which means that specialists in the agricultural and water sectors know about negative impact of climate change on biodiversity. They are less informed about other negative aspects - "anthropogenic pressures" (39%), "land degradation" - and "natural hazards (droughts, floods, mudflows, etc.)" (33%). "Economic development" as a negative factor is mentioned by 11% of the respondents.

8. Overwhelming majority of the respondents (94%) believe that biodiversity conservation activities should be carried out by State Committee for Ecology in collaboration with other stakeholders. The need to involve Forestry Committee is mentioned by 94%, Ministry of agriculture and Ministry of water resources - by 67%, Academy of Sciences - by 61%, Universities - by 56%. Goskomzemgeodezkadastr and Civil Society - by 50%. Other stakeholders include - hokimiyats, makhalla, Ministry of emergency situations, international organizations.

9. To the question "Are you sufficiently informed about the issues related to biodiversity conservation, climate change, land degradation?" 67% of respondents think that well enough (61%).

10. Among the sources of information on issues related to environmental protection, most of the respondents mentioned "mass media" and "Internet" (61%), 56% noted that they have knowledge of these issues by the nature of their "professional activity", 50% learned about them in conferences, seminars, workshops, 33% "from books and scientific articles", 22% - from international projects.

11. Although 69% of the respondents provided definition of integrated management of natural resources (water, land, forest, biodiversity), the answers show that the majority of the respondents do not have a clear and complete understanding of this topic.

12. 83% of respondents gave answer to the question "What are ecosystem services?", however the majority of the respondents do not have a clear and complete understanding of this topic. For example, some respondents refer to ecosystem services as "types of services provided by organizations to preserve the environment".

13. "What ecosystem services are provided by lake, wetland and riparian ecosystems of Aral sea region?" know, however partially, 83% of the respondents.

14. 83% of the respondents believe that lake, wetland and riparian ecosystems of Aral sea region are very important for the "conservation of globally significant biodiversity". Other answer options were selected as follows: important for "combating land degradation" - 61%, "sustainable livelihoods of local population" - 44%, "conservation of landscapes" - 39%, "water resources" - 33%, "climate change resilience" - 28%.

15. Among effective measures for conservation of lake, wetland and riparian ecosystems of Aral sea region, 78% named "creation of protected areas", 39% - "improved water management", and 28% named both "land management" and "improving awareness and knowledge".

16. Most of the specialists are aware of the importance of providing lake, wetland and riparian ecosystems of Aral sea region with a sufficient amount of water ("very important" - 78%, "important" - 28%).

17. To the question "What needs to be considered when providing water to lake, wetland and riparian ecosystems of the Aral sea region?" the majority answered "Amount of available water resources" - 61%, and "Timely water supply (regularity, seasonal needs, etc.)" was mentioned by 61%. "Irrigation needs" was selected by 50%, and "weather conditions (dry year, wet year)" - by 28%.

18. Although 83% of the respondents answered the question "What water-saving technologies do you know?", most of them identified only one technology - "drip irrigation".

19. 89% of the respondents named technologies for combating land degradation, most of them mentioned technologies for reforestation.

20. The answers showed that the majority of the experts in the agricultural and water sector, who participated in the survey, is not familiar with the concept of "Land degradation neutrality" (72%).

21. To the question "At what levels is it necessary to address important issues related to environmental protection in the Aral sea basin?" 94% of the respondents answered "internationally" and 28% - "regionally" (Central Asia).

22. To assess the respondents' awareness of gender issues, the questionnaire included several gender-related questions. Answers to the questions showed that the concept of "gender" is familiar to 100% of the specialists who completed the questionnaire⁸⁰.

23. Specialists from agricultural and water sectors believe that in order to obtain the best results in addressing internationally the issues related to biodiversity conservation, adoption of integrated approach to water resources management and climate-smart land use, it is necessary to: "build the capacity of decision-makers on issues of environmental protection" (44%), "set up data exchange at the regional level"(33%), "Organize dialogue with all stakeholders" (33%), "build the capacity of employees of the involved organizations on conducting negotiations" (22%).

To the question "What do you think you can personally do for biodiversity conservation in your region?" answers were given by 89% of the respondents. For example:

- *participate in research activities;*
- *conduct outreach activities;*
- *improve legislation;*
- *right an article on the topic of biodiversity, etc.*

ANSWERS TO QUESTIONNAIRE 3

64 responses were given to **questionnaire 3** by users of natural resources, farmers specializing in both crop production and livestock, owners of household plots, etc. (Annex 3. **List of ministries and agencies for dissemination of the questionnaire for Group 3**).

Table 3.

Question No.	Question/answer options	Number of responses	%
1.	How old are you?		
	21-40	39	61
	41-60	25	39
2.	Education?		
	Elementary school	0	0
	High school	1	2
	Secondary education	22	34
	Higher education	41	64
3.	To which group you belong?		
	Male	54	84
	Female	10	16
4.	What is your main occupation?		
	Agricultural worker	29	45
	Administrative worker	11	17
	Service sector worker	11	17
	Student	0	0
	Other	12	19
5.	Are you familiar with the concepts?		

⁸⁰ Other gender related aspects will be analyzed by the project expert on gender issues.

Question No.	Question/answer options	Number of responses	%
	Biodiversity	32	50
	Protected are	34	53
	Ecosystem services	28	44
	Land degradation	34	53
5a	From what sources you learned about the concept?		
	Mass media (newspapers, magazines, TV, radio, etc.)	22	34
	International projects	2	3
	Books, research articles	20	31
	Familiar due to professional activity	41	64
	Internet	13	20
	Conferences, workshops, seminars	4	6
6.	How important, in your opinion, is conservation of biodiversity for the development of our country and your region?		
	Very important	37	58
	Important	26	41
	Somehow important	1	2
	Absolutely unimportant	0	0
7.	Does the state of biodiversity have an impact on...?		
	Environment	45	70
	Your wellbeing	8	13
	Economy	13	20
	Living standards of the population	16	25
	Public health	28	44
	Culture	11	17
8.	Lake, wetland and riparian ecosystems of the Aral sea region are very important for:		
	Conservation of globally significant biodiversity	32	50
	Sustainable livelihoods of the local population	19	30
	Conservation of landscapes	16	25
	Water resources	24	38
	Climate change resilience	21	33
	Combating land degradation	18	28
9.	What factors (aspects) negatively affect the conservation of biodiversity?		
	Insufficient water resources	25	39
	Economic development	6	9
	Land degradation	25	39
	Climate change	27	42
	Natural hazards (droughts, floods, mudflows, etc.)	29	45
	Anthropogenic pressures	7	11
10.	What is integrated management of natural resources (water, land, forest, biodiversity)?		
	Have answer	23	36
	Don't have answer	41	64
11.	Are you familiar with the term ecosystem services?		

Question No.	Question/answer options	Number of responses	%
	Yes	37	58
	No	27	42
12.	Wetland and riparian ecosystems of the Aral sea region serve as:		
	Source of livelihoods for local communities	17	27
	Source of water	20	31
	Recreation are for local communities and tourists	18	28
	Source of food	15	23
	Impact weather and climate	38	59
13.	How important, in your opinion, is it to provide lake, wetland and riparian ecosystems of the Aral sea region with sufficient water?		
	Very important	35	55
	Important	24	38
	Somehow important	3	5
	Absolutely unimportant	2	3
14.	Who do you think should participate in the conservation of lake, wetland and riparian ecosystems of the Aral sea region?		
	Environmental organizations	14	22
	Water management organizations	8	13
	Local authorities	10	16
	WUAs, Farmers' councils, mahalla	5	8
	Local communities	20	31
	All above and other stakeholders	37	58
15.	What do you think needs to be done so that farmers, rationally and in an integrated manner, use water not only for irrigation, but also to maintain lake, wetland and riparian ecosystems of the Aral sea region?		
	They need to understand the importance of ecosystems	24	38
	They need to cooperate with water management organizations	26	41
	They need to have appropriate knowledge	25	39
	They need to adopt water saving technologies	35	55
	They need incentives	8	13
16.	What causes land degradation?		
	Water scarcity	31	48
	Waterlogging, flooding, water saturation of affected lands	21	33
	Irrigated agriculture	28	44
	Uncontrolled deforestation	24	38
17.	What are the negative consequences of land degradation?		
	Long-term loss of vegetation	31	48
	Release of salts and dust into the air	35	55
	Loss of pasture feed capacity	31	48
	Loss of biodiversity	37	58
	Deforestation	33	52
18.	What water saving technologies do you know?		

Question No.	Question/answer options	Number of responses	%
	Have answer	40	63
	Don't have answer	25	39
19.	What technologies do you know to combat land degradation?		
	Have answer	29	45
	Don't have answer	34	53
20.	What measures can you suggest (consider the most effective) for the conservation of lake, wetland and riparian ecosystems of the Aral sea region?		
	Create protected areas	19	30
	Improve water management	17	27
	Improve pasture management	13	20
	Improve awareness and knowledge	14	22
21.	What negative impact can bring climate change in your region?		
	Drying out of water bodies	15	23
	Reduction in the volume of irrigation water	19	30
	Decrease in crop yields	28	44
	Decrease in the feed value of pastures	9	14
22.	What measures to address climate change impact can be/are applied in your region?		
	Use of water-saving technologies	34	53
	Reduction of cutting of tree plantations/forests	43	67
	Efficient use of land resources	38	59
	Planting drought tolerant crops	33	52
	Efficient pasture use management	26	41
23.	Are you familiar with the term "gender"?		
	Yes	46	72
	No	18	28
24.	You are sufficiently informed about measures to address impacts of climate change, land degradation, and issues of biodiversity conservation?		
	Yes	28	44
	Insufficiently	32	50
	No	4	6
25.	What, in your opinion, is the most effective way of learning to gain knowledge?		
	Trainings	16	25
	Field demonstration of new technologies	32	50
	Through information materials: brochures, booklets, information sheets, etc.	23	36
	Field farmer schools	27	42
26.	What do you think you can personally do for biodiversity conservation in your region?		
	Have answer	39	61
	Don't have answer	24	38

1. 61 % of the respondents in Group 3 were in age group from 21 to 40, 39% - from 41 to 60.

2. 64% of the respondents have university diploma, 34% - have secondary education and 2% graduated from high school.
3. 84% of the respondents are men, 16% are women.
4. 45% are agricultural workers, 17% are administrative workers, 17% are service sector workers.
5. The concepts of "protected area" and "land degradation" are familiar to 53% of the respondents. 50% are familiar with the concept of "biodiversity", 44% - with the concept of "ecosystem services".
- 5a. The respondents learned about the above concepts from the following sources: 64% - are familiar by the nature of their professional activities, 34% - from the media, 31% - from books and scientific articles, 6% - from attending conferences, seminars, workshops, 3% - from international projects.
6. Most of the respondents realize the importance of biodiversity conservation for the development of the country: "very important" - 58%, "important" - 41%, only 1% answered that it is "somehow important".
7. When asked what the state of biodiversity influences, 70% of the respondents answered - "environment", 44% - "public health", 25% - "living standards of the population", 20% - "economy", 17% - "culture", and 13% believe that the state of biodiversity affects their personal wellbeing, which shows that not everybody understands that biodiversity affects life of absolutely every person.
8. Half of the respondents (50%) noted that lake, wetland and riparian ecosystems of the Aral sea region are important for the conservation of globally significant biodiversity, 38% - for water resources, 33% - for resilience to climate change, 30% - for sustainable livelihoods of local population, 28% - for combating land degradation, 25% - for landscape conservation.
9. To the question "What factors (aspects) negatively affect biodiversity conservation?" almost half of the respondents (45%) named natural hazards (droughts, floods, mudflows, etc.) and 42% - climate change. 39% mentioned negative impact of "insufficient water resources" and "land degradation". Less than 11% - "anthropogenic pressures" and 7% - "economic development".
10. Definition of "integrated natural resource management" was given only by 36% of respondents.
11. Definition of "ecosystem services" was given by 58% of respondents.
12. Most of the respondents (59%) believe that wetlands and riparian systems of the Aral sea region "affect the weather conditions and climate", 31% - that they are a source of water, 28% - that they are recreation areas for local communities and tourists, 27% - that they are a source of livelihoods for local population, 23% - that they are a food source.
13. To the question "How important, in your opinion, it is to provide lake, wetland and riparian ecosystems of the Aral sea region with sufficient water?" 55% of the respondents answered "very important", and 38% - "important", although there are those who believe that it is "somehow important" (5%) and "absolutely unimportant" (3%).
14. Most of the respondents well understand the need for interaction of all stakeholders in the conservation of lake, wetland and riparian ecosystems of the Aral sea region to achieve best results (58%). 31% of the respondents answered that local residents should be involved, 31% - environmental organizations, 22% - local authorities, 16% - water management organizations, 13% - WUAs and Farmers' councils, 8% - mahalla.
15. To the question "What do you think needs to be done so that farmers, rationally and in an integrated manner, use water not only for irrigation, but also to maintain lake, wetland and riparian ecosystems of the Aral sea region?", 55% of the respondents answered "use of resource-saving technologies", 41% noted importance of cooperation with water management organizations, 39% mentioned the need to have relevant knowledge, 38% - mentioned the need to understand the importance of wetland and riparian, and only 13% of respondents believe that what is need is incentives.
16. Among the causes of land degradation were mentioned "water scarcity" - 48%, "irrigated agriculture" - 44%, "uncontrolled deforestation" - 38%, "waterlogging, flooding and water saturation of affected lands" - 33%.
17. The respondents are fairly well aware of the consequences of land degradation. Among the mentioned consequences were "loss of biodiversity" - 58%, "release of salts and dust into the air" - 55%, "deforestation" - 52%, "loss of feed capacity of pastures" and "long-term loss of vegetation cover" - 48%. However, more than half of the respondents couldn't name technologies for combating land degradation (question 19). As additional

consequences were named: a negative impact on the income of farmers and livestock breeders, as well as an increase in soil salinity.

18. 63% answered to the question "What water-saving technologies do you know?" mainly mentioning drip irrigation.

19. More than half of the respondents (53%) couldn't answer to the question "What technologies do you know to combat land degradation?".

20. Among effective measures for biodiversity conservation in the pilot districts of the project were noted: "creation of protected areas" - 30%, "improvement of water management" - 27%, "improvement of awareness and knowledge" - 22%, "improvement of pasture management" - 20%.

21. To the question "What negative impact can bring climate change in your region?" most of the respondents (44%) answered - "decrease in crop yields", 30% - decrease in the volume of irrigation water, 23% - drying up of water bodies, 14% - decrease in the feed value of pastures.

22. Among the measures to address climate change impact, the respondents noted: reduction of cutting down tree plantations /forests - 67%, efficient use of land resources - 59%, use of water-saving technologies - 53%, cultivation of drought-resistant crops - 52%, efficient pasture use management - 41%. *Importance of working with the local population to improve their level of knowledge* was also mentioned.

23. 72% of the respondents are familiar with the term "gender".

24. Half of the respondents believe that they are not sufficiently informed about measures for addressing the impacts of climate change, land degradation, and issues of biodiversity conservation - 50%. 44% consider their level of knowledge as sufficient.

25. Half of the respondents named "field demonstration of new technologies" as the most efficient for obtaining knowledge (50%). Field farmer schools were indicated by 42%. 36% consider that information materials such as brochures, booklets, information sheets, etc. are important for improving awareness and knowledge, and 25% think that trainings are important. *In addition, it was pointed out that it is important to start receiving environmental knowledge from childhood, as well as to involve professionals with rich practical experience in training events.*

26. 68% of the respondents answered to the question "What do you think you can personally do for biodiversity conservation in your region?". The responses included compliance with environmental safeguards, responsible water use, prevention of deforestation, etc.

ANSWERS TO QUESTIONNAIRE 4

4 responses were received to **questionnaire 4** from representatives of banks during visit to the pilot districts of the project in Bukhara province.

Table 4.

Question No.	Question/answer options	Number of responses	%
1.	How old are you?		
	21-40	3	75
	41-60	1	25
2.	Education?		
	Elementary school	0	0
	High school	0	0
	Secondary education	0	0
	Higher education	0	0
3.	To which group you belong?		
	Male	0	0
	Female	4	100

Question No.	Question/answer options	Number of responses	%
4.	What is your main occupation?		
	Agricultural worker	0	0
	Administrative worker	3	75
	Service sector worker	1	25
	Student	0	0
	Other	0	0
5.	Are you familiar with the concept of?		
	Biodiversity	0	0
	Protected area	2	50
	Ecosystem services	0	0
	Land degradation	2	50
5a	From what sources did you learn about this concept?		
	Mass media (newspapers, magazines, TV, radio, etc.)	4	100
	International projects	0	0
	Books, research articles	0	0
	Familiar due to professional activity	1	25
	Internet	1	25
	Conferences, workshops, seminars	2	50
6.	How important, in your opinion, is conservation of biodiversity for the development of our country and your region?		
	Very important	2	50
	Important	0	0
	Somehow important	2	50
	Absolutely unimportant	0	0
7.	Does the state of biodiversity have an impact on...?		
	Environment	3	75
	Your wellbeing	1	25
	Economy	1	25
	Living standards of the population	1	25
	Public health	1	25
	Culture	1	25
8.	What factors (aspects) negatively affect the conservation of biodiversity?		
	Insufficient water resources	3	75
	Economic development	0	0
	Land degradation	0	0
	Climate change	2	50
	Natural hazards (droughts, floods, mudflows, etc.)	1	25
	Anthropogenic pressures	0	0
9.	Are sufficient measures taken at the national level to preserve biodiversity, adapt to climate change, combat land degradation?		
	Yes	2	50
	No	2	50
	Don't know	0	0

Question No.	Question/answer options	Number of responses	%
10.	What measures can you suggest (consider the most effective) for biodiversity conservation in your region?		
	Create protected areas	1	25
	Improve water management	2	50
	Improve pasture management	1	25
	Improve awareness and knowledge	0	0
	More microloans to farmers	0	0
11.	What measures, in your opinion, should be taken in order to engage more private companies in addressing the consequences of climate change and land degradation, and in biodiversity conservation?		
	Introduce incentives	2	50
	Carry out economic assessment	0	0
	Introduce concessional loans	0	0
	Improve awareness and knowledge	1	25
12.	How important the role of financial organizations in addressing consequences of climate change and land degradation, and in biodiversity conservation?		
	Very important	2	50
	Important	2	50
	Somehow important	0	0
	Absolutely unimportant	0	0
13.	Are Uzbek banks ready to introduce green financing mechanisms?		
	Yes	3	75
	No	0	0
	Don't know	1	25
14.	Please provide examples of green financing mechanisms of banks in Uzbekistan?		
	Have answer	0	0
	Don't have answer	4	100
15.	What needs to be done in order for banks to introduce more green loan portfolios?		
	Have answer	1	25
	Don't have answer	3	75
16.	Please provide examples of preferential financial packages for farmers introducing resource-saving technologies (land, water, biodiversity)?		
	Have answer	1	25
	Don't have answer	3	75
17.	Are you familiar with the term "gender"?		
	Yes	2	50
	No	2	50
17a	How important do you think it is to integrate gender aspects in various development activities in the country?		
	Very important	2	50
	Important	1	25
	Somehow important	0	0

Question No.	Question/answer options	Number of responses	%
	Absolutely unimportant	0	0
18.	How do you assess the general level of awareness of people that you know (for example, employees with whom you work / study) about biodiversity, climate change impact, land degradation?		
	Very high	2	50
	High	0	0
	Satisfactory	2	50
	Low	0	0
19.	What, in your opinion, is the most effective way of learning to gain knowledge?		
	Trainings	1	25
	Field demonstration of new technologies	2	50
	Through information materials: brochures, booklets, information sheets, etc.	1	25
20.	What do you think you can personally do for biodiversity conservation in your region?		
	Have answer	1	25
	Don't have answer	3	75

CONCLUSIONS

Thus, the analysis of the answers shows:

Local population has certain basic knowledge of key environmental concepts - ("biodiversity" - 50% of the respondents, "PAs" - 53%, "ecosystem services" - 44%, "land degradation" - 53%). Half of the respondents (50%) mentioned that they were not adequately informed about measures for addressing climate change impact, land degradation, and about biodiversity conservation, 44% answered that they were sufficiently informed on these issues, and 6% that they were not informed at all.

Half of the respondents (50%) believe that wetland and riparian ecosystems of the Aral sea region are important for the conservation of globally significant biodiversity and, to a lesser extent, for the sustainable wellbeing of the local population (30%). The lack of understanding among local natural resources users of the importance and role of various ecosystem services, which are provided by the wetland and riparian ecosystems of the Aral sea region, in improving the wellbeing of the population is shown by the fact, that the majority of respondents (59%) think that these ecosystems "affect the weather and climate", and only 27% think that they are "a source of income for the local population".

Although 55% of the respondents indicated, that it is necessary to use resource saving technologies, so that farmers use water efficiently and in an integrated manner not only for irrigation, but also to maintain lake, wetland and riparian ecosystems of the Aral sea region, 39% of them couldn't name any water saving technology, and those who named, mainly referred to drip irrigation. 53% didn't know about any technology to combat land degradation. Other named measures to support these ecosystems included the need for farmers to have relevant knowledge (39%) and to improve farmers' understanding of the importance of ecosystems (38%).

When organizing training events, it is necessary to take into account what learning method, in the opinion of the respondents, is the most efficient. 50% of the respondents indicated "field demonstration of new technologies", 42% - "organization of farmer field schools", and 36% also mentioned the importance of providing local natural resources users with information materials and 25% - of conducting relevant training events.

Survey also showed that natural resources users understand the need for dialogue and joint problem solving. To the question "Who do you think should be engaged in the conservation of lake, wetland and riparian ecosystems of the Aral sea region?" 58% of respondents answered: local residents - 31%, local authorities - 16%, water management organizations - 13%, WUAs, farmers' councils, mahalla - 8%, and all of the above and other stakeholders - 58%.

In summarizing all key results of the stakeholder survey, we can conclude that the level of awareness stands between 50 - 55%. This level of understanding of the problems related to unsustainable water use and land degradation, which lead to higher risks of loss of biodiversity, is not sufficient to support the introduction of integrated natural resources management approaches and full realization of the benefits and roles in the conservation of natural resources and requires further development.

Analysis of expert assessments, published information materials and responses to questionnaires showed that decision-makers, employees of ministries and departments involved in agricultural and water management and environmental protection, as well as specialists of partner organizations have a certain understanding of INRM (61%), of ecosystem services provided by wetlands (83%), of water saving technologies (83%) and of technologies to combat land degradation (89%). However, the provided answers are not clear-cut and do not always cover all important aspects. Among the practices of sustainable water management, mainly were indicated drip irrigation, collection of rainwater for irrigation, and use of hydrogel. Practices for combating land degradation include afforestation and pasture management.

It should be noted, that 72% of the surveyed specialists from water and agricultural sectors are not familiar with the concept of Land Degradation Neutrality (LDN), which calls for activities aimed at raising their awareness of the benefits and ways of achieving LDN.

Analysis of the answers related to level of understanding of the importance of wetland and riparian ecosystems in the Aral sea region showed that there is an understanding of importance of their conservation and providing them with sufficient water. However, in order to take appropriate timely measures for conservation of these valuable ecosystems and their efficient management through integrated approach, it is necessary to increase the knowledge of decision-makers. Understanding of LDN concept and skills to translate the country's LDN obligations into regular practice should be also improved.

The respondents consider the role of civil society in addressing problems related to environmental protection as "very important" (45%) or "important" (45%), but at the same time 63% of the respondents could not name any NGO working in their region. 32% assessed the level of awareness of NGOs as "satisfactory", 1% - as "very high", and 21% - as "high".

Regarding the role of the media in addressing problems related to environmental protection, 51% think that it is "very important" and 43% - "important". At the same time, the level of awareness of journalists and other media representatives about issues related to environmental protection is assessed by 46% as "satisfactory", and only by 7% as "very high".

To the question "What, in your opinion, is the role of ecological tourism in the sustainable development of your region and the country as a whole?" the opinions of the respondents were divided - 46% believe that it is "very important", and 45% think that it is "not very important", which indicates a lack of awareness of the need and benefits of developing ecological tourism.

On the issue of stakeholder engagement, overwhelming majority of respondents answered that interaction with all stakeholders is necessary - 94%.

Thus, there is a need to engage the media, civil society, tourism sector and other stakeholders in information campaigns and training events, which will help in achieving the best results and scaling up the project experience.

56% of the respondents mentioned, that in promoting INRM principles at the local level, initiatives of higher authorities and their active involvement in the conservation of lake, wetland and riparian ecosystems of the Aral sea region is of great importance.

Given the level of international activities of the Republic of Uzbekistan on the development of the Aral sea region and the creation of a zone of environmental innovations and technologies in this territory, as well as the

importance of addressing transboundary water problems, building the capacities of the parties involved in the development and discussion of solutions at the international level becomes a high priority. 94% of respondents indicated that important issues related to environmental protection in the Aral sea basin should be addressed at the international level.

To the question "What actions should be taken to achieve the best results in addressing internationally the issues related to biodiversity conservation, introduction of integrated approach to water management and climate-smart land use?" the answers were distributed as follows: "Building decision-making capacity on environmental issues" - 44%, "Building capacity of employees of the involved organizations in conducting negotiations" - 22%, "Setting up data exchange at the regional level" - 33%, "Organizing dialogue with all stakeholders", including NGOs and the scientific community, - 33%.

ANNEX 1

List for Group 1 questionnaire dissemination

Вазирлик ва идоралар рўйхати

1. Ўзбекистон Республикаси Олий ва ўрта махсус таълим вазирлиги
2. Ўзбекистон Республикаси Энергетика вазирлиги
3. Ўзбекистон Республикаси Иқтисодий тараққиёт ва камбағалликни қисқартириш вазирлиги
4. Ўзбекистон Республикаси Инновацион ривожланиш вазирлиги
5. Ўзбекистон Республикаси Ахборот технологиялари ва коммуникацияларини ривожлантириш вазирлиги
6. Ўзбекистон Республикаси Туризмни ривожлантириш давлат қўмитаси
7. Ўзбекистон Республикаси давлат геология ва минерал ресурслар қўмитаси
8. Ўзбекистон ёшлар иттифоқи
9. Ўзбекистон хотин-қизлар қўмитаси
10. Ўзбекистон экологик ҳаракати
11. Ўзбекистон Республикаси Фанлар академия
12. Ўзбекистон ишбилармон аёллар ассоциацияси
13. Хусусий туристик ташкилотлар ассоциацияси
14. Ўзбекистон журналистлари ижодий уюшмаси
15. Ўзбекистон нодавлат нотижорат ташкилотлари миллий ассоциацияси (НАННОУз)
16. Ўзбекистон Электрон Оммавий Ахборот Воситалари Миллий Ассоциацияси (НАЭСМИ)
17. ННТ "KRASS" – Хоразм агромаслаҳат маркази

ANNEX 2

List for Group 2 questionnaire dissemination

Вазирлик ва идоралар рўйхати

1. Ўзбекистон Республикаси Сув хўжалиги вазирлиги
2. Қорақалпоғистон Республикаси Сув хўжалиги вазирлиги
3. Ўзбекистон Республикаси Сув хўжалиги вазирлигининг Аму-Бухоро ирригация тизимлари ҳавза бошқармаси
4. Ўзбекистон Республикаси Қишлоқ хўжалиги вазирлиги
5. Қорақалпоғистон Республикаси Қишлоқ хўжалиги вазирлиги
6. Бухоро вилояти Қишлоқ хўжалиги бошқармаси
7. Ўзбекистон Республикаси Ўрмон хўжалиги давлат қўмитаси
8. Ўзбекистон Республикаси ер ресурслари, геодезия, картография ва давлат кадастри давлат қўмитаси
9. Ўзбекистон Республикаси агросаноат мажмуи ва озиқ-овқат таъминоти соҳасидаги лойиҳаларни амалга ошириш агентлиги
10. “Узагросуғурга” Акциядорлик жамияти

ANNEX 3

List for Group 3 questionnaire dissemination

1. Hokimiyat of Amudarya district of Karakalpakstan
2. Hokimiyat of Muynak district of Karakalpakstan
3. Hokimiyat of Alat district of Bukhara province
4. Hokimiyat of Karakul district of Bukhara province
5. Council of farms, dekhans and owners of household plots of Uzbekistan

ANNEX 4

1. Karakul branch of NBU
2. Karakul branch of Peoples' bank
3. Joint-stock commercial bank "Agrobank", Karakul branch
4. Joint-stock commercial bank "Agrobank", Alat branch

Annex 18: Responses to comments from GEF Council and STAP

Reviewer's comments	Responses	Reference in CEO Endorsement Document / GEF/UNDP Project Document
STAP Scientific and Technical Screening of the Project Identification PIF form		
<p>Overall assessment: <i>STAP welcomes the project to promote sustainable management of lands, wetlands and riparian corridors in Uzbekistan. STAP feels it is a well-defined project with very clear rationale for restoration in a region that suffered iconic environmental disaster following unsustainable economic policies. The project includes very good specification of measurable outcomes. In addition, it has a good narrative of an initial theory of change, with important recognition of sequencing and underlying assumptions. The project presents a clear recognition of the need for transformational change and long-term approach, including catalysing financing for restoration well beyond the period of project implementation. A thorough analysis of lessons from prior initiatives will be essential to the next stage of project development.</i></p>	<p>Thank you for the recommendations. As suggested, the project has included an ample review of the lessons learned and knowledge generated by other projects under the Knowledge Management Plan. In addition, the final project strategy has consistently incorporated several SLM measures that were tested and shared via the World Overview of Conservation Approaches and Technologies WOCAT platform.</p> <p>The project had consistently included in its final strategy design lessons drawn from previous projects such as the "UNDP-GEF 'Achieving Ecosystem Stability in Aral Sea and Kyzylkum Desert' (SLM Project)", the "UNDP-GEF Project 'Biodiversity Tugai and Nuratau Biosphere Reserves'", the GIZ Rangeland Management Project, the UNDP GEF Project "Reducing Pressures on Natural Resources from Competing Land Use in Non-Irrigated Arid Mountain, Semi-desert and desert landscapes (LAND project)" as well as other projects supported by World Bank, the EU,GIZ, ICARDA. In terms of Integrated Water Management, the project learns from EU funded initiative "Sustainable management of Water resources in Rural Areas of Uzbekistan Technical capacity Building" and builds on the knowledge that has been generated by the project and trainings delivered to the water managers, Basin Irrigation System Authorities (BISAs) in the project targeted regions and water users. The project will build on GIZ work on basin level planning through the Project "Water Management and Basin Organizations in Central Asia WMBOCA" and on other previous projects such as "Incorporating environmental flows into water management in the Amudarya river delta"(2003-2007).</p>	<p>GEF/UNDP Project Document Annex 17 Knowledge Management Plan;</p> <p>GEF UNDP Project Document Annex 24 Proposed Sustainable Land Management (SLM) measures</p> <p>Other references to various GEF and non GEF projects have been made in the project document, under different Outputs:</p> <ul style="list-style-type: none"> - Output 1.1: World Bank BEAM hydroclimatic model - Output 1.2: GIZ/CAREC Project "Support of Water Management and Basin organizations in Central Asia - Output 2.1 GEF FAO Project "Sustainable Forest and Rangelands Management in the Dryland Ecosystems of Uzbekistan" - Output 3.1.2: M. Zukkov Foundation - GIZ Project "Land use based on the ecosystem approach and conservation of ecosystems in the lower reaches of the Amudarya River."

	The project further builds on the knowledge generated by the global project ValuES: Methods for integrating ecosystem services into politics, planning and practices (GIZ), which have demonstrated that acknowledgement of the values of ecosystem services brought to different sectors of economy and local livelihoods was key to identify trade-offs among multiple water users. As water wastage in agriculture is linked to water deficits to lakes, wetlands and riparian zones, GIZ project has emphasized the need of coordination and reconciliation among multiple water users, as being the challenge to be overcome, if minimum ecological flow necessary to survival of water-based ecosystem is to be achieved.	
<p><i>What overall approach will be taken, and what knowledge management indicators and metrics will be used?</i></p> <p>KM section refers to retrospective capture of lessons but does not yet specify approaches to future sharing</p> <p><i>What plans are proposed for sharing, disseminating and scaling up results, lessons and experience?</i></p> <p>Not detailed yet in this section, though theory of change gives this strong emphasis, recognizing massive scale of investment required to support transformation.</p>	<p>Thank you. We have carefully analyzed relevant programmes and projects and the final project strategy draws upon good practices promoted by these initiatives. The elements taken up and considered in the project strategy are detailed under the Project's Knowledge Management Plan. The project knowledge management strategy builds on three key elements that foster learning and knowledge sharing, placed at the heart of the project's adaptive management and upscaling efforts at local, national and regional levels:</p> <ol style="list-style-type: none"> 1. Learning from existing lessons and best practices, 2. Assessing and documenting results, 3. Knowledge sharing and communication. 	<p>GEF/UNDP Project Document Annex 17 Knowledge Management Plan</p>
Comments submitted by Council members on the GEF December 2019 Work Programme		
Germany		
<p>Germany requests to correctly and consistently applying technical and geographical terms pertaining to integrated water resources management in the PIF, as such terms are subject to scientific and international norms.</p> <ul style="list-style-type: none"> • The correct regional term is "Aral Sea Basin," which contains territories of five Central Asian (CA) states, Afghanistan, and 	<ol style="list-style-type: none"> 1. Thank you and we took note of the suggested corrections. The term <i>Aral Sea Basin</i> is used consistently throughout the project document 2. Thank you for this comment. We took note of your recommendations and carefully analyzed the current 	<p>The correction of the term has been applied throughout the text, where relevant.</p> <p>GEF/UNDP Project Document Output 1.2 and GEF CEO Endorsement Request Part II/1.a.3 "The proposed alternative scenario</p>

<p>a small part of Iran; the term “Aral Basin” very frequently used in the PIF is therefore incorrect and should be adjusted.</p> <ul style="list-style-type: none"> • Integrated water resources management is founded upon the basin principle. Thus, River Basin Management (RBM) can be defined as the management of water resources of a basin as part of the natural ecosystem and in relation to their socioeconomic setting. It follows, then, that planning to draft “[i]ntegrated LDN-compatible and climate-smart water management plans designed in 4 priority districts” (output 1.2.) fundamentally goes against the basin principle. Furthermore, it violates Uzbek law, which abolished water management according to administrative boundaries in 2003, instead implementing ten Basin Irrigation System Administrations (BISA), which handle water management and distribution (based on the main river basin in Uzbekistan). • With regard to outcome 4, Germany would like to call attention to the fact that the “[i]ntegrated Fund for Aral Sea” is an erroneous spelling of the International Fund for Saving the Aral Sea (IFAS). 	<p>water legislation and the best possible approach aligned with IWRM principles.</p> <p>According to the current water legislation, there are 13 Basin Irrigation System Administrations (BISAs) which largely coincide with the administrative territorial boundaries. The project strategy now applies the basin principle and takes into consideration that the water supply systems follows the hydrographic boundaries. Therefore, the project targeted area estimated to be covered by the <i>Integrated Water Management Framework</i> is broader than envisaged at the PIF stage (i.e. covering the pilot districts only) and it stretches over the three regions of LADAB landscape, covering the larger water supply system.</p> <p>Within the broader Integrated Water Management Framework, the project will demonstrate sustainable water use measures in agriculture and will develop four <i>Integrated Water Management Plans</i> at the target districts level (Alat and Karakul in Bukhara region and Amudarya and Moynaq in Karakalpakstan region) covering a total of 112,180 ha irrigated agricultural land.</p> <p>3. Thank you for the suggested correction. We applied the correct spelling in the final project strategy.</p>	<p>with a brief description of expected outcomes and components of the project”</p>
<p>Germany would like to underline that the PIF does not sufficiently mention the transboundary context of water management in Uzbekistan.</p> <ul style="list-style-type: none"> • The four pilot districts mentioned in the PIF are located in the Amu Darya Basin, which is, on a regional level and as part of the IFAS, managed by the Basin Water Organization Amu Darya. This organization then dispatches water to the national level in cooperation with the BISAs, which are under the auspices of the Ministry of Water Resources. The Basin Water Organization Amu Darya handles all data and reports on the availability of water, and coordinates via the 	<p>Thank you for the comment and as suggested, the final project strategy is addressing in a clearer way the cross-border context, through IFAS support and close engagement of BWO and BISAs throughout the project implementation.</p> <p>The proposed alternative scenario takes into consideration the transboundary context of the water management in the Lower Amudarya and Aral Sea Basin (LADAB) landscape. Under Component 1, the project will establish a multi-stakeholder Task Force and Committee including representatives of line ministries, the</p>	<ul style="list-style-type: none"> • GEF/UNDP Project Document Component 1 • GEF/UNDP Project Document Output 4.2.1

<p>Interstate Commission for Water Coordination (ICWC) with the other Amu Darya riparian neighbours, namely, Tajikistan and Turkmenistan.</p> <ul style="list-style-type: none"> It is unclear to Germany, then, why Uzbekistan should require support in international negotiations within the IFAS, as put forth in output 4.2.1. of the PIF, seeing as Uzbekistan is already well-equipped to handle this task on its own. 	<p>International Fund for Saving the Aral Sea (IFAS), Amudarya Basin Water Organization (BWO), the relevant Basin Irrigation System Authorities (BISAs): Amu-Bukhara BISA; the Left-bank Amudarya BISA and Nukus Hydro unit (Niznedaryinskiy department under BWO Amudarya), water users (WUAs), women farmers representatives, NGOs and academia. The International Fund for Saving the Aral Sea (IFAS) will be one of the key partner of the project and potential member of the Board, advising on the transboundary dimension of the water management and helping to fully take into consideration the regional water management context and facilitate consensus on revised water norms and timing of water releases to Amudarya lakes and wetlands ecosystems under the project scope.</p> <p>2. Thank you for the comment. The need for a strengthened technical capacity of the national institutions and representatives participating into the regional water programmes and negotiations has been carefully analyzed and confirmed during the PPG consultations.</p>	
<p>Germany urgently recommends acknowledging and integrating existing knowledge and tools into the project's approach: As stated on p. 33 of the PIF, "[i]t is for the first time in the history of Aral Sea basin planning, that conservationists and water managers agreed to come together to discuss needs of KBAs, needs of irrigated lands and other water uses, in an attempt to agree on optimized volumes and timing of water supply through the hydrotechnical facilities within the landscape. The integrated approach of conserving KBA ecosystem services for the benefit of the production landscape is highly innovative in the region."</p> <p>In fact, the German technical cooperation implementing agency GIZ, commissioned by the Federal Foreign Office within the framework of the Berlin Process, has already successfully</p>	<p>1.Thank you. The comment is fully taken into consideration. The PIF/project wording's message has been most likely to highlight the fact that this is the first intervention to establish an institutional framework linking LDN compatible "water saving agriculture" with the guaranteed ecological flow that will ensure ecological integrity of lakes, wetlands and riparian zones in lower Amudarya, aligned with IWRM principles. Under the KM Plan, the project is nevertheless fully acknowledging the previous initiatives successfully implemented in the region in a board review of the lessons learned that has informed the project's final design that have implemented integrated water management, IWRM based approaches, research into</p>	<p>GEF/UNDP Project Document Output 1.2</p>

<p>developed a basin planning methodology and basin management plans for four out of five CA countries: Kazakhstan, Tajikistan, Kyrgyzstan, and only recently two in Uzbekistan. For the past three years, a methodology designed to apply a Strategic Environment Assessment to basin planning was developed for Uzbekistan and applied for the first time in CA in two river basin management plans</p>	<p>the optimization of water management among multiple users and minimum ecological flows.</p> <p>The project document fully acknowledges the GIZ contribution to Integrated Water Resources Management (IWRM) in Uzbekistan and provides an opportunity to build on previous GIZ generated experience. Under Output 1.2 the project document emphasizes the GIZ experience: “The project will build on the knowledge generated by other donor-led initiatives and approved basin planning methodologies, such as the Basin Planning Handbook developed within the framework of project Support of Water Management and Basin organizations in Central Asia (GIZ/CAREC)⁸¹. The IWRM based <i>Integrated Water Management Framework</i> will be aligned with the water management system that serves the entire LADAB landscape, which operates according to the hydrographic boundaries, covering all canals collectors as well as the hydrotechnical facilities that command the water releases in LADAB area”.</p>	
<p>Germany suggests specifying why certain regions were chosen for project implementation, as it remains unclear why Bukhara should be just as suitable as i.e. Karakalpakstan or Khorezm.</p>	<p>Thank you for the comment. The targeted project site is represented by the LADAB landscape, which is administratively covered by portions of three provinces Bukhara, Khorezm and Karakalpakstan. The project is focusing on the Amudarya basin approximately from the Dengizkul Lake in the Alat District of Bukhara Province, downstream to the river’s termination at the former Aral Sea, in Moynaq district, Karakalpakstan. The LADAB landscape was considered due to its agricultural land and because it is hosting the most vulnerable lakes, wetlands and riparian zones. The project is focusing on the implementation at landscape-level of multiple types of interventions within a spatial unit that allows for more synergistic benefits. The targeted districts were selected</p>	<p>GEF/UNDP Project Document, Annex 22, Target Landscape Profile.</p> <p>GEF/UNDP Project Document Annex 24 Proposed Sustainable Land Management measures. And GEF/UNDP Project Document Output 2.4.</p>

⁸¹ http://www.cawater-info.net/bk/water_law/pdf/handbook-basin-planning-en.pdf

	<p>in order to be suitable for integrated approaches addressing Water-Land-Biodiversity, therefore these districts have different land use types (irrigated and non-irrigated agricultural land), various KBAs/IBAs and lakes and wetlands ecosystems. For example Bukhara hosts irrigated areas, degraded rangelands and it also hosts important KBAs/IBAs such as Dengizkul Lake.</p>	
<p>Furthermore, Germany considers it unlikely that 10,000 ha of tugai forests could manageably be restored and would thus appreciate an explanation of the rationale behind this calculation.</p>	<p>Thank you for the comment. The project's proposed 10,000 ha includes both tugai and Tauranga ecosystems. The selection of the targeted 10,000 ha of tugai and tauranga forest areas has been validated by the PPG expert team, based on their experience of many years of field observation and based on consultations with local forestry enterprises, local authorities and local communities on the targeted plots.</p> <p>The proposed measures for the sustainable management of tugai/tauranga forest ecosystems on approx.10,000 ha are captured under the Annex 24 in the GEF/UNDP Project Document and have been discussed with the local forestry enterprises and representatives of local communities; it is expected that the project supported forest management plans for the 10,000 ha of tugai and Tauranga forests to be integrated in their existing forestry plans. Further validation of the measures proposed will take place during the first year of the project implementation.</p> <p>Apart of the measures proposed by the project document under Output 2.5, referring to the sustainable forest management, the state of tugai/tauranga ecosystems is expected to improve gradually even (or particularly) beyond the project life span, if sufficient amount of water will be released to the lakes, wetlands and riparian zones in the Amudarya mid and lower</p>	<p>GEF/UNDP Project Document Annex 24 (Table 1) and Output 2.5. In addition, the interventions captured under Output 1.1. are related to the gradual improvement of the lakes and wetlands and riparian zones hosting the tugai/tauranga ecosystems in Amudarya basin.</p>

	reaches. To this end, the project document is planning a series of interventions captured under Output 1.1.	
Unfortunately, Germany would have to object against the further implementation of nature reserves, since the existing bioserve created by UNDP at the lower Amu Darya in Karakalpakstan nature reserve has shown negative effects especially on Bukhara deer	<p>Thank you, comment noted. The project's focus on the creation of new PAs has been decided after consultations with the national authorities at the time of PIF writing and more in-depth discussions during the PPG phase. The proposed PAs are fully aligned with the new NBSAP (2019-2028) targets. The IUCN categories and form of protections proposed in the project document will be further validated during the project implementation, based on the results of inventories, ecological assessments and local stakeholders and local communities consultations.</p> <p>In addition, meetings were held with Ms. Gritsyna Maria Alekseevna, project manager "Land use based on the ecosystem approach and conservation of ecosystems in the lower reaches of the Amudarya River" and Ms. Caroline Milow Programme Manager "Green Central Asia". Synergies were discussed and activities designed based on GIZ shared good practices. As a result the project document includes interventions in Lower Amudarya Biosphere Reserve that will optimize the number of Bukhara deer in relation with the ecological carrying capacity of the ecosystem; will improve zoning and EIA regulations for businesses operating in the protected area, and will support consensus with local communities over Bukhara deer relocation sites. Further cooperation opportunities were explored within the framework of upcoming GIZ initiatives in the region, and these opportunities will be further pursued during the project implementation.</p>	GEF/UNDP Project document Output 3.1.1 and Output 3.1.2
United States		
We are very supportive of both this project, and its proposed partnership with the State Forestry Committee. The United States has found the Committee to be an engaged and enthusiastic partner, and would advocate for the GEF to pay	Thank you for the positive review. Indeed, the State Forestry Committee is one of the key project partners. The GEF/UNDP Project will work closely with the Committee and the state forestry enterprises in the	GEF-UNDP Project Document Annex 14 Stakeholders Engagement Plan .

<p>greater attention to enhancing the Committee’s technical capacity through this project.</p>	<p>targeted regions for the implementation of the Sustainable Land Management (SLM) measures and the organization of awareness and training activities. The State Committee on Forestry will likely be represented in the Project Steering Committee and Project Technical Advisory Groups (TAG). The Forestry Enterprises are key project partners in all four districts: Alat Forestry Enterprise (Kirlishon Section and Hojadaylat Section); Karakul Forestry Enterprise ; Kipchak Forestry Enterprise; Beruny Forestry Enterprise (Amudarya) ; Moynaq Forestry Enterprise. The Forestry Enterprises will be supporting Investments into different Sustainable Land Management (SLM) measures in Bukhara and Karakalpakstan regions; development and approval of the pasture management plans (Output 2.4 and 3.2.3), forest management plans (Output 2.5) and land restoration activities (Output .2.4); The Forestry Enterprises will be actively participating in and benefiting from education and awareness events (Component 4). Support on the issues of sustainable nature management in Kungrad state forest hunting enterprise during creation of Southern Ustyurt protected area and in Kazakdarya state forest hunting enterprise during creation of Akpetki Protected Area; support on the issues of sustainable nature management in Tahtakupyr State forestry enterprise during creation of Akpetki PA (Output 3.1).</p>	
<p>The current project makes several references to Bukhara and Navoi as part of the “Aral Sea Region”. However, we understand the Aral Sea region to generally refer to an area within Karakalpakstan.</p>	<p>Thank you for this comment. According to the national counterparts (IFAS) the Aral Sea Region includes most of Karakalpakstan and the Khorezm regions of Uzbekistan, the area of Dashowuz in Turkmenistan, and the Kzyl-Orda province in southern Kazakhstan. The term Aral Sea region is used in Uzbekistan by the national counterparts, and therefore the project has applied this term occasionally when referring to alignment with national initiative in the Aral Sea Region.</p>	<p>GEF-UNDP Project Document Annex 22 Target Landscape Profile. GEF UNDP Project Document Outcome 4.2</p>

	<p>However, as suggested, the project is clearly identifying the targeted landscape namely the Lower AmuDarya and Aral Sea Basin (LADAB) described under Annex 22 of the GEF/UNDP Project document. The Lower Amu Darya and Aral basin (LADAB) landscape which covers approximately 10,000,000 million hectares in the southern and southwestern portions of Uzbekistan. The LADAB landscape is administratively covered by portions of three provinces: Karakalpakstan, Khorezm, and Bukhara. The project is focusing on the Amu Darya basin approximately from the Dengizkul Lake in the Alat District of Bukhara Province, downstream to the river's termination in at the former Aral Sea, in Moynaq district, Karakalpakstan. (GEF/UNDP Project document Annex 22 Target Landscape Profile).</p> <p>In addition, under Outcome 4.2 the project will support Uzbekistan's capacity to participate in different regional meetings and joint regional programmes in the Aral Sea Basin.</p>	
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Annex 19: Letter of Agreement with the Government for the Provision of UNDP Support Services

**STANDARD LETTER OF AGREEMENT BETWEEN UNDP and THE STATE COMMITTEE OF
THE REPUBLIC OF UZBEKISTAN FOR ECOLOGY AND ENVIRONMENT PROTECTION
FOR THE PROVISION OF SUPPORT SERVICES TO**

UNDP project “Conservation and sustainable management of lakes, wetlands, and riparian corridors as pillars of a resilient and land degradation neutral Aral basin landscape supporting sustainable livelihoods” (Project # 00116676)

Dear Mr. Maksudov,

1. Reference is made to consultations between officials of the State Committee of the Republic of Uzbekistan for Ecology and Environment Protection (hereinafter referred to as “Committee”) and officials of UNDP with respect to the provision of support services by the UNDP country office for nationally managed programmes and projects. The United Nations Development Programme (UNDP) and the State Committee of the Republic of Uzbekistan for Ecology and Environment Protection (hereinafter referred to as “Committee”) hereby agree that the UNDP country office may provide support services for nationally managed project, at the request of the Committee, as described in the project document between the UNDP and the Committee for the project “Conservation and sustainable management of lakes, wetlands, and riparian corridors as pillars of a resilient and land degradation neutral Aral basin landscape supporting sustainable livelihoods” 00116676 (hereinafter referred to as “the Project”), which will be implemented by the State Committee of the Republic of Uzbekistan for Ecology and Environment Protection.

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

3. The UNDP country office may provide, at the request of the Committee, the following support services for the activities of the Project:

- (i) hiring two staff of the project management unit (PMU): Admin and Financial Assistant and Driver
- (ii) providing capacity building trainings to PMU staff under SCEEP to successfully manage and implement the project and other similar projects in the future
- (iii) support services for recruitment of international experts and payments
- (iv) organization of Regional LDN Workshop
- (v) organization of Innovation Challenge
- (vi) implementation of Micro-scheme support for Farmers in cooperation with the Council of Farmers


4. The procurement of goods and services and the recruitment of the Project personnel by the UNDP country office shall be in accordance with the UNDP regulations, rules, policies and procedures. Support services described in paragraph 3 above shall be detailed in an annex to the project document, in the form provided in the Attachment hereto. If the requirements for support services by the country office change during the life of the Project, the annex to the project document will be revised with the mutual agreement of the UNDP Resident Representative and the Committee.

5. The relevant provisions of the Standard Basic Assistance Agreement (SBAA) between the Government of Uzbekistan and the UNDP, signed by Parties on 10th June 1993, including the provisions on

liability and privileges and immunities, shall apply to the provision of such support services. The Government shall retain overall responsibility for the nationally managed Project through the Committee. The responsibility of the UNDP country office for the provision of the support services described herein shall be limited to the provision of such support services detailed in the annex to the project document.


6. Any claim or dispute arising under or in connection with the provision of support services by the UNDP country office in accordance with this letter shall be handled pursuant to the relevant provisions of the SBAA.
7. The manner and method of cost-recovery by the UNDP country office in providing the support services described in paragraph 3 above shall be specified in the annex to the project document.
8. The UNDP country office shall submit progress reports on the support services provided and shall report on the costs reimbursed in providing such services, as may be required.
9. Any modification of the present arrangements shall be affected by mutual written agreement of the parties hereto.
10. If you are in agreement with the provisions set forth above, please sign and return to this office two signed copies of this letter. Upon the signature, this letter shall constitute an agreement between the "name of the partner" of the Republic of Uzbekistan and UNDP on the terms and conditions for the provision of support services by the UNDP country office for the Project.

For the State Committee of the Republic of Uzbekistan for Ecology and Environmental Protection:


Name: Alisher Maksudov
Chairperson of the State Committee of the Republic of Uzbekistan for Ecology and Environment Protection

Date: _____

On behalf of UNDP:


Matilda Dimovska
Resident Representative
UNDP Uzbekistan

Date: 01.04.2021

DESCRIPTION OF UNDP COUNTRY OFFICE SUPPORT SERVICES

1. Reference is made to consultations between the State Committee for Ecology and Environment Protection and UNDP with respect to the provision of support services by the UNDP country office for the nationally managed UNDP project “Conservation and sustainable management of lakes, wetlands, and riparian corridors as pillars of a resilient and land degradation neutral Aral basin landscape supporting sustainable livelihoods” (Project # 00116676) (“the Project”).
2. Support services to be provided:

Support services	Cost to UNDP of providing such support services per case/person in USD	Number of transactions (during the full period of project implementation)	DPC Total Amount in USD
1. Human Resources			7,327.74
a) Staff selection and recruitment process			
Advertising (20%)	121.396	2	242.792
Short-listing (40%)	242.792	2	485.584
Interviewing (40%)	242.792	2	485.584
b) Staff HR & Benefits Administration & Management (onetime fee, per staff. Services incl. contract issuance, benefits enrollment, payroll setup - this price applies to the separation process as well)	206.96	2	413.92
c) Recurrent personnel management services: staff payroll & banking administration & management (for whole contract period):			
<i>Payroll validation, disbursement</i>	160.06	10	1600.6
<i>Extension, promotion, entitlements</i>	137.19	10	1371.9
Performance evaluation	137.19	10	1371.9
<i>Leave monitoring</i>	22.87	10	228.7
d) File maintenance (SC/FTA)	28.02	10	280.2
e) Issuance of Income certificate	35.14	10	351.4
f) SDS Registration	55.98	2	111.96
g) Assistance with issuance of UN ID card	38.32	10	383.2
Total			7,327.74
2. Finance			10,651.50
a) Payment	39.02	200	7,804.00
b) Vendor profile only	21.26	90	1,913.40
c) AR Management Process (create/apply receivable pending item- Atlas Agencies Only)	36.41	5	182.05
d) Issue/apply deposit	22.25	15	333.75
e) F10 Settlement	22.62	10	226.2
f) GL Journal Entry	19.21	10	192.1

Total			10,651.50
3. Procurement			15,636.12
a) Procurement not involving CAP - below US\$ 50,000			
-Identification and selection	108.9	40	4,356.00
- Issue Purchase Order	54.45	40	2,178.00
- Follow-up	54.45	40	2,178.00
b) Procurement process involving CAP (and/or ITB, RFP, requirements) - above US\$ 50,000)			
- Identification & selection			
- Contracting/Issue Purchase Order			
- Follow-up			
c) Amendment to the contract not involving CAP	52.64	5	263.2
d) Consultant recruitment			
Advertising (20%)	47.358	28	1326.024
Short-listing (40%)	94.716	28	2652.048
Interviewing (40%)	94.716	28	2652.048
e) Retainer (e.g. translator) personnel recruitment/TOR verification	7.7	4	30.8
Total			15,636.12
4. Admin Support			9,513.35
a) Travel Management (simple-one destination)			
Travel cost estimates (including airline quotes DSA estimates) (25%)	16.63	88.00	1463
Travel request or authorization (40%)	26.60	88.00	2340.8
Travel claim or F10 settlement (35%)	23.28	88.00	2048.2
b) Hotel reservation	13.42	30	402.60
c) Visa support (excl. government fee)	41.08	30	1,232.40
d) Customs clearance (excluding fees for customs clearance procedures)	51.09	15	766.35
e) Letters – NVs, outgoing letters	25.2	32	806.4
f) Power of Attorney issuance	15.12	30	453.60
Total			9,513.35
Total DPC			43,128.71
GEF			35,530
UNDP			7, 599

Maximum DPC amount to be charged to GEF fund is USD 35,530

3. Description of functions and responsibilities of the parties involved shall be regulated as specified in the project document.

Annex 20: Co-financing letters

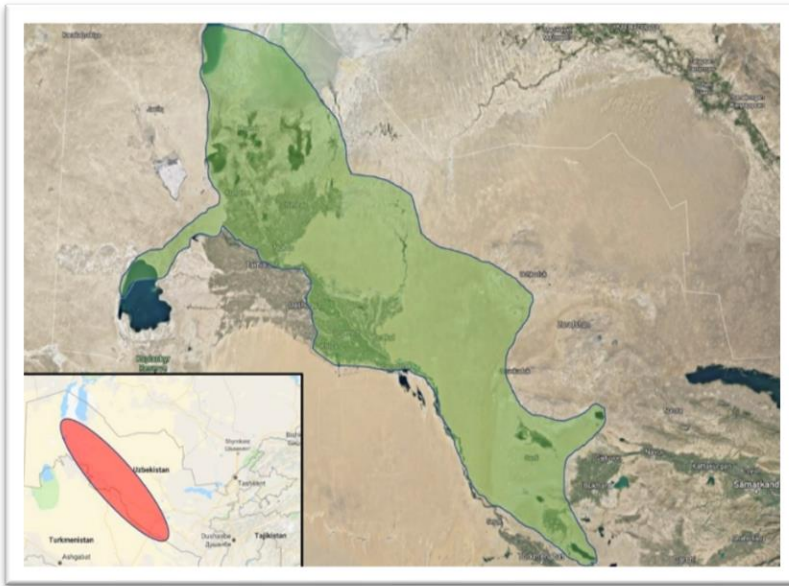
Included as a separate attachment

Annex 21: [Partners Capacity Assessment Tool and HACT assessment](#) of Project Implementing Partner and Responsible Parties

Included as a separate attachment

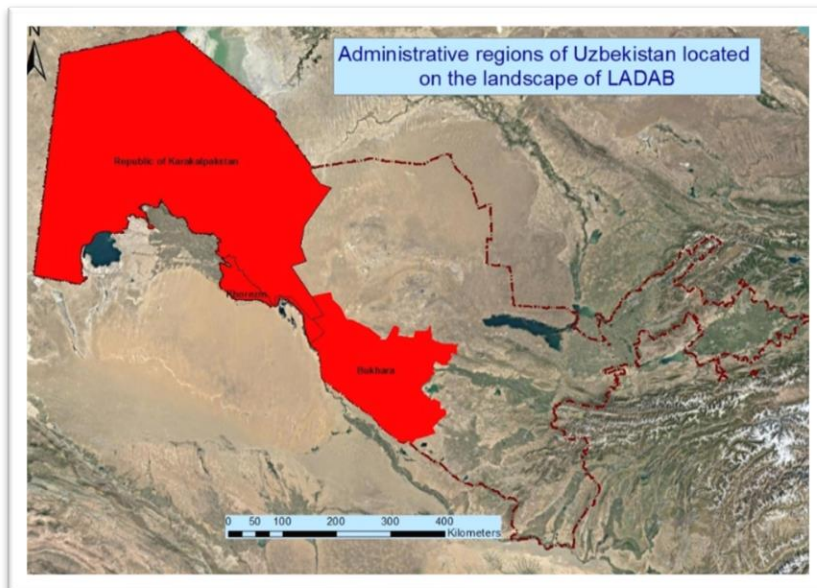
Annex 22: Target Landscape Profile

Fig. 1 Lower Amudarya and Aral Basin (LADAB) landscape



The targeted project site is the Lower Amu Darya and Aral basin (LADAB) landscape which covers approximately 10,000,000 million hectares in the southern and southwestern portions of Uzbekistan. The LADAB landscape is administratively covered by portions of three provinces: Karakalpakstan, Khorezm, and Bukhara. The project is focusing on the Amu Darya basin approximately from the Dengizkul Lake in the Alat District of Bukhara Province, downstream to the river's termination in at the former Aral Sea, in Moynaq district, Karakalpakstan. The Lower Amu Darya river basin includes areas of intense irrigated agricultural lands. The greatest concentration of irrigated lands are around the cities of Alat-Karakul (home to more than 200,000 people), throughout Khorezm region (home to nearly 1.8 million people), and in the former Amu Darya delta region, covered by multiple districts in Karakalpakstan region (where virtually all of the 1.8+ million people living in Karakalpakstan reside).

Fig. 2 Administrative territories of the provinces in the LADAB landscape



Lakes, Wetlands and Riparian Zones

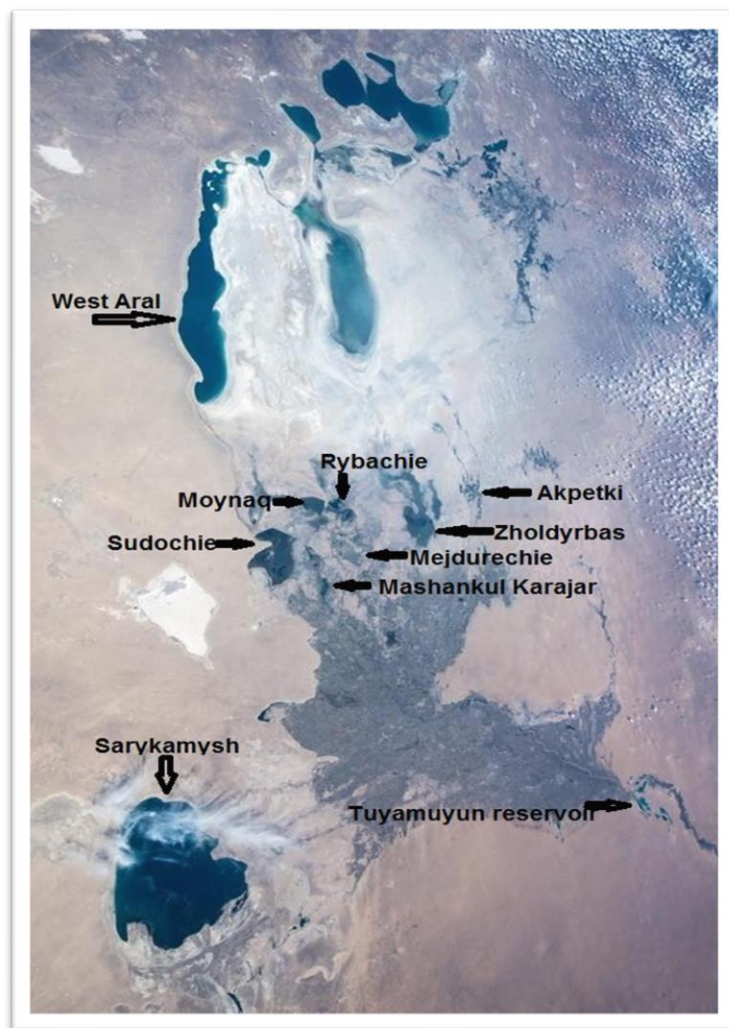
The modern delta of the Amudarya lies downstream from Nukus city, and totals about 7,000 square kilometres. Water bodies and wetlands in the project area can be divided into 3 zones in accordance with respective regimes of water sources (depended on Tuyamuyun reservoir water releases) see Table 2 below:

1. Left-bank zone (west) - territory under the command of Raushan system of canals, KKS and GK collectors. Key water bodies are wetland lakes of Sudoche system of lakes (Akushpa, Tayly, Bolshoye Sudoche and Begdulla-Aydy, lake Karateren), as well as lakes of Karajar system (Mashankul, Khojakul, Ilmenkul).
2. Central zone - territory under the command of the main course of Amudarya, canals Taldyk (Kungrad-Muynak), Muynak (Glavmyaso) and Marinkin Uzyak. Key water bodies are Mezhdurechenskoye reservoir (including Maypost and Domalak lakes), Rybachye and Muynal lakes, Zakirkol lake and Makpalkol lake.
3. Right-bank zone (east) - territory under the command of system of canal Kazakdarya, collectors KS-1, KS-3. Key water bodies are Jiltirbas system of lakes: the area supplied through collector KS-4 - Akpetki nature site system of lakes.

Table 1: List of KBAs/IBAs (water depended bodies, wetlands and riparian zones targeted by the project)

Name of water body	Water level (Baltic system),m	Area, km ²	Water volume, million.m ³
Dried Aral Sea area and surrounding Ustyurt Plateau			
Sarykamysk Lake and surrounding Ustyurt Plateau	8,0	959,7	70000
West Aral and surrounding Ustyurt Plateau	24,6	5110 (including water surface 3175)	43600
Left-bank (Western) zone of the Prearalie			
Wetland of the Sudoche lake	52,5	464,7	884
Mashankul and Khojakul Lake complex	53,0	50,7	440
Central zone (Amudarya delta)			
Mezhdurechensk water reservoir	57,0	320	420
Rybachie reservoir	51,0	64,0	136
Moynaq reservoir	51,6	97,4	163
Makpalkol lake	53,0	12,0	63,0
Maypost lake	55,0	27,1	30,0
Zakirkol lake	56,5	15,8	17,8
Right-bank (Eastern) zone of the Prearalie			
Zholdyrbas Lake (incl. Left and right ducts)	52,0	297,2	477
Akpetky Lakes and surrounding	53,0	391,5	100
Sub-total in Prearalie		1740,4	2730,8
Khorezm			
Khorezm Fish Farm and adjacent lakes		220,6	
Bukhara (Kyzylkum desert)			
Aksay Lake and surrounding desert		20,3	
Rogatoe Lake		38,6	
Karakyr Lakes		642,4	200
Dengizkul Lake	181,5	496,5	3000
Ayakaghytma Lake and surrounding desert	133	328,5	200
Zekry Lake		15,6	
TOTAL KBAs		9.572,6	

Fig 3. The system of lakes dependent on water releases from Tuyamuyun reservoir



Amudarya basin flow is regulated by 51 water reservoirs, of which 24 are in Uzbekistan. Of special importance are Tuyamuyun Hydroengineering Complex - a massive irrigation regulator. The Tuyamuyun Hydroengineering Complex is the main hydrotechnical facility that regulates the water volumes and timely releases to the lower Amudarya reaches. The Amudarya Basin Water Organization (BWO) controls Amudarya River discharge and the management and operations of interstate main canals with structures located in Amudarya reaches downstream Tuyamuyun hydro unit.

The Nukus Hydro unit Division (re-named as Nizhnedarya department) operates under the "Amudarya" Basin Water Organization (BWO) and manages water releases in the project area, down from Takiatash hydroelectrical facility. The requirements to ensure stable water releases throughout the year through Takiatash hydrotechnical facility, of not less than 3.1 km³/year is not fulfilled, and Nurek water reservoir is obsolete and has limited water capacity to reduce summer water deficits.

Table 2 shows some preliminary assessments of the required water volume of the lakes, wetlands in the project area:

Biodiversity area number and KBA code (Fig. B-1)	Water body	Water level (system of Baltic Sea), m	Area of biodiversity zones, km ²	Volume of water, Mln m ³	Water source of water body/area	Required water volume (preliminary assessment) (mln m ³ per year)
West Aral, lake Sarykamysk and adjacent parts of plateau Ustyurt						
2	West Aral and adjacent parts of plateau Ustyurt	24.6	5110	43600	Wedging out of groundwater from the Ustyurt plateau, in high-water years discharge from the Small (Northern) Aral along the Uzun-Aral canal	2000 -3500
11 (UZ050)	Lake Sarykamysk and adjacent parts of plateau Ustyurt	8.0	959.7	70000	Collector-drainage water from the irrigated massifs of Khorezm and Dashoguz through Daryalyk and Ozerny collectors	2000 - 2500
Amudarya delta (Aral Sea region)						
Left-bank (west) zone of Aral Sea region						
5(UZ002)	Wetland system of lake Sudochoye	52.5	464.7	884	Raushan canal system, KKS and GK drainage collectors	800 - 1000
12 (UZ052)	Lake complex Mashankul-Karajar	53.0	50.7	440	Canals Karadzhar and Taldyk from the Raushan canal	500 - 600
Central zone (Amudarya delta)						
	Mezdurechensk reservoir	57.0	320	420	Amudarya river	1000 - 1500
	Lake Rybachye	51.0	64.0	136	Canal Marinkinuzyak from Mezdurechensk reservoir	200 - 250
	Lake Muynak bay	51.6	97.4	163	Muynak canal (Glavmyaso) from Mezdurechensk reservoir and Taldyk canal (Kungrad-Muynak)	250 - 300
	Lake Makpalkul	53.0	12.0	63.0	Canal Marinkinuzyak from Mezdurechensk reservoir	100 - 150
Right-bank (east) zone of Aral Sea region						
7 (UZ03)	Lake Jiltirbas (incl. left and right ducts)	52.0	297.2	477	Canal Kazakdarya, drainage collectors KS-1, KS -1.22, KS-3.	750 - 850
10(UZ049)	Akpetki system of lakes	53.0	391.5	100	Drainage collector KS-4 and Kukdarya duct	200 - 300
	Total in Aral Sea region		1740.4	2730.8		
Khorezm						
9	"Khoraz" fishery and adjacent territory		220,6		System of canal Palvan (Hon-yab) and collector Eski Ozerney	?
Bukhara and Navoi provinces (Kyzylkum desert)						
1 (UZ007)	Lake Aksay and adjacent territory		20.3		Artesian wells, groundwater fed	?
4 (UZ008)	Lake Rogatoye		38.6		Artesian wells, groundwater fed	?
8	Lake Karakyr		642.4	200	Discharge collector Northern (Shimoly)	?
6	Lake Dengizkul	181.5	496.5	3000	Discharge collector Dengizkul, groundwater fed, flood waters from Zeravshan river through Taikyr duct	350 - 500
?	Lake Ayakagytna and adjacent territory	133.0	328.5	200	Discharge collectors Agytmin and Shurkul Aylanma	?
3	Lake Zekry		15.6		Discharge collectors from irrigation system Shohryz-Dustlik	?
	Total KBAs/water bodies in project area		9572.6			

The most vulnerable wetlands are located in the Amudarya delta. The inflow to the delta areas is largely controlled by the Tuyamuyun reservoir. The southern regions of the delta consist of vast agricultural areas of Khorezm and Southern Karakalpakstan whereas the northern part of the delta is on the territory of Northern Karakalpakstan and host the remaining natural and semi-natural lakes ecosystems. The Northern delta (lower Amudarya reaches) begins at Takiatash dam, after the large irrigation intake at Nukus. To the west it is bordered by the Ustyurt plateau, and to the north by the Aral Sea.

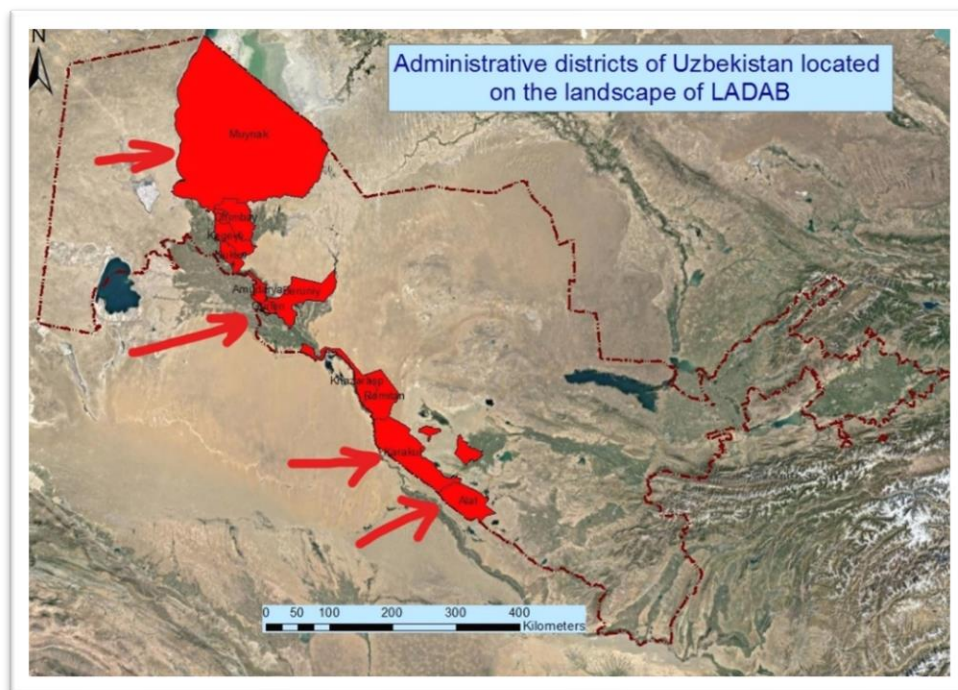
Fig. 4 The main hydrotechnical facilities relevant for the project sites:



Targeted districts

The targeted regions and districts host most of the life-supporting natural ecosystems, wetlands, lakes and riparian zones of the Amudarya Basin. In addition, these territories are occupied by the most degraded rangelands in Uzbekistan (encompassing desert pastures of which between 40-78% are under varying degrees of degradation) and irrigated areas of which 81% are affected by salinization.

Fig. 5 Administrative territories of targeted districts located in the LADAB landscapes



Bukhara province is situated in the southwestern part of Uzbekistan. The Kizil-Kum Desert takes up a large portion of its territory. The total area of the Province is 39,400 square km. The climate is characteristically continental and arid. The Bukhara Province has a population of 1,384,700, about 68% of whom live in the rural areas, while the other 32% live in urban centers. The Province is divided into 11 administrative districts, and the province's administrative center is the city of Bukhara, which has a population of 263,400.

Alat district is located in the southwestern part of the Bukhara region, the total area of the district is **322,573 ha** located on the right bank of the Amu Darya River. The total area of irrigated land: 21,520 ha. Key Biodiversity Areas: Dengizkul Lake Existing Protected Areas: Dengizkul State Nature Reserve. Agricultural land (including hayfields and pastures): 178,035 ha. Tugai forests: 2000 ha. The source of water for the Alat district is the Amu Darya River. The main water networks of the region are the Amu-Karakul and Koryakinsky canals.

Population: as of January 1, 2020, the population of Alat district is 98,948 people. Including 49 550 men and 49 398 women. The number of people employed in the national economy is 44,300. Of these, 17,500 people (39.5%) are employed in agriculture, the remaining 26,800 (60.5%) works in other sectors of the national economy. The district is the largest agricultural district of the Bukhara region in terms of the efficient (cost-effective) use of irrigated land. There are 238 farms in the district on 54,398 hectares of land, including 191 farms on 29,258 hectares specializing in the cultivation of cotton and grain, 22 farms on 23,562.5 hectares specializing in livestock, 6 farms on 230.0 hectares, specializing in poultry farming, 6 farms on 249.3 hectares specializing in fish farming, 9 farms on 88.8 hectares specializing in horticulture and viticulture, 3 farms on 634 hectares in other areas, 1 farm on 376 hectares, specializing in beekeeping. In addition, in various areas of agriculture, 15 other agricultural enterprises (limited liability companies, agricultural firms, diversified private companies, private enterprises, subsidiary and experimental farms) work on 201,398 ha. Approximately 20,081 houses in the district have 4,706 hectares of personal plots. The population of Alat district, mainly in rural areas, sells mainly fruits, vegetables and melons grown on their household plots, in regional markets, as well as in markets in districts where vegetables and fruits are grown in smaller quantities (mainly Zhandarsky and Kagan districts).

Karakul district borders Alat district in the south, being located in the western part of the Bukhara region, with a total area of **695,409 ha** along the right bank of the Amu Darya River. The total irrigated land: 25,076 hectares. Existing protected area in the district: Kyzylkum State Reserve. Agricultural land including pastures: 358,142 ha. Tugai forest: 3,000 ha. The source of water for the Alat district is the Amu Darya River. The main water networks of the region are the Amu-Karakul and Koryakinsky canals.

Population of Karakul district as of January 1, 2020 is estimated at 161,300 people. Including 80 669 men and 83,079 women. Total number of people employed in the national economy is 66,121 people. Of these, 29,361 people (44.4%) are employed in agriculture, the remaining 36760 (55.6%) work in other sectors of the national economy.

There are 256 farms in the district on 60,052.6 hectares of land, including 218 farms on 35,849.9 hectares specializing in cotton and grain cultivation, 13 farms on 23,881.2 hectares specializing in animal husbandry, 3 farms for 16, 1 hectare specializing in poultry farming, 4 farms on 11.0 hectares specializing in fish farming, 9 farms on 69.7 hectares specializing in horticulture and viticulture, 3 farms on 64.59 hectares specializing in beekeeping, 8 51.3 hectares of farms specializing in vegetable growing. In addition, 58 other agricultural enterprises (limited liability companies, agricultural firms, diversified private companies, private enterprises, subsidiary and experimental farms) work on 410,466 ha in various fields of agriculture. Approximately 4,958 houses in the district have 400 hectares of personal plots. The population of the Karakul region, mainly in rural areas, sells mainly fruits, vegetables and melons grown in their household plots, in regional markets, as well as in markets in areas where vegetables and fruits are grown in smaller quantities (mainly Zhandarsky and Kagan districts).

The **Republic of Karakalpakstan** is situated in the north-western part of Uzbekistan. It occupies the area from the western part of the Kyzhylkum Desert to the Amu-Darya river delta. The Republic's total area covers 165,600 square kilometres. The climate is typically continental, with very hot summers and cold winters without snow. The population of Karakalpakstan is 1.4 million, mainly Uzbek (32.8%) and Karakalpak (32.1%). About 48% of the population lives in rural areas, while the other 52% live in towns. The Republic is divided into 15 administrative districts, 12 towns and 16 villages, and its administrative centre is Nukus which has a population of 236,700. Other significant towns are Beruny, Buston, Khodjeily, Kungrad, Muynaq, Takhiatash, Turtkul, and Chimbard.

Amudarya district: The district is located in the south-eastern part of the Republic of Karakalpakstan, the total area of the district is **823,119 ha**, of which 801,109 ha (78.4%) are located on the left bank, and 22,010 hectares (21.6%) on the right bank of the Amu Darya river. Main Protected Area in the region is Lower Amudarya Biosphere Reserve. The total arable land is 43,732 ha including Hayfields and grasslands 9,866 ha. Irrigated areas: 39,463 ha. Forests area: 5,901 ha (including tugai and Tauranga along Amudarya riverbanks). The source of water for the Amu Darya region is the Amu Darya River. The main water networks of the district are the channels Kilichniyazbay, Mangitarna, Kipchakarna, Tash yap.

Population of Amudarya district is estimated as of January 1, 2020 at 199,100 people. Including 100,800 men and 98,300 women. The number of people employed in the national economy is 74,194 . Of these, 45,628 people (61.5%) are employed in agriculture, the remaining 28556 (38.5%) work in other sectors of the national economy. There are 385 farms on 44,016.2 hectares of land in the district, including 354 farms on 42,755.4 hectares specializing in cotton and grain cultivation, 13 farms on 1000 hectares specializing in livestock breeding, 5 farms for 111.8 hectares specializing in poultry farming, 1 farm on 61.6 hectares specializing in fish farming, 3 farms on 25.2 hectares specializing in horticulture and viticulture, 9 farms specializing in vegetable growing. In addition there are 213 other agricultural enterprises (limited liability companies, agricultural firms, diversified private companies, private enterprises, subsidiary and experimental farms) working on 5,204.3 ha. In the district there are 103 dekhkan farms in a legal basis on an area of 18.9 hectares. 28, 298 houses in the district have 6239 hectares of personal plots. The population of the Amu Darya region, mainly in rural areas, sells mainly fruits, vegetables and melons grown in their household plots, in regional markets, as well as in markets of districts where vegetables and fruits are grown in smaller quantities (mainly in the city of Nukus and Takhtakupyr, Kegeyli, Shumanai regions of the Republic of Karakalpakstan).

Moynaq district: located in the northern part of the Republic of Karakalpakstan, stretching over **3,748,554 ha**, mostly desert and Aral Sea drained seabed. There are approximately 196,569 ha of agricultural land including pastures; about 961 ha of forests and 37,000 ha of areas with desert shrubs. Irrigated areas cover 26,124 ha. The water management system is characterized by the presence of eight channels located on the territory of the district, with a total length of 204.7 km, chiefly among them: Tallik, Kazakhdarya, Keuser trapa and Karazhar, as well as fourteen lakes (KBAs/IBAs), the main of which are the Medzhurechenskoye, Zhylturbasskoye and Muynakskon reservoirs, Sudochye Lake, Zakirkol and Makpalkol.

The territory of the Muynak is a plain region with pronounced depressions. The irrigated area of the Muynak region is 26,120 ha. The movement of sand from the desert area is affecting arable land and increases lakes siltation. Irrigated lands are highly saline, as a result of which the productivity of many crops is low. If the average fertility score in the Republic of Karakalpakstan is 43, in the Muynak region is 33, the lowest in the country. In the desert zone, quite large areas of land are occupied by solonchak (saline soils).

Population is estimated as of January 1, 2020, at 31,814 people. Including 16,204 men and 15,610 women. Number of people employed in the national economy is 9,324 people. Of these, 4,500 people (48.3%) are employed in agriculture, the remaining 26,800 (51.7%) work in other sectors of the national economy. As of 01.01.2020, 98 farms were registered (occupying 13,232

hectares of land), of which 25 in plant growing and 66 in livestock. In crop production, 11 farms are engaged in growing wheat, in the vegetable and melon directions, 10 farms, in the grape direction 1 and 1 farm in the garden direction. Of the number of livestock farms, 60 units are engaged in cattle breeding, 3 farms are breeding cattle, in poultry farming 1 farm, in fishing 5 and horse breeding 2 farms. On the territory of the district, 2 forestry enterprises were registered: Muynak Leskhoz and Kazakhdarya Leskhoz. The total occupied area of Muynak Leskhoz is 650.6 thousand ha, of which 190.3 ha is sown. Leskhoz Kazakhdarya occupies 1193 thousand ha, of which 66.2 is sown. In addition, in various fields of agriculture, 74 other agricultural enterprises (limited liability companies, agricultural firms, private enterprises, subsidiary farms) work on 12,892 hectares. Approximately 4,569 houses in the district have 158 hectares of personal plots.

Table 3: Summary of the land resources in the targeted project districts

	Region/Province	District	Total area/ha	Agricultural lands/ha	Irrigated agricultural lands/ha
1	Bukhara	Alat	322 573	178 035	21 521
2	Bukhara	Karakul	695 409	358 143	25 076
3	Karakalpakstan	Muynak	3 748 554	196 569	26 124
4	Karakalpakstan	Amudarya	102 119	43 732	39 463
Total		4 868 655		776 479	112 184

Table 4: Summary of irrigated land resources in the targeted project landscape

Regions, pilot districts	Total irrigated land, ths.ha	Including saline land		Areas with 0-2.0 m water table
		ths.ha	%	ths.ha
Bukhara province	274.61	235.71	85.8	36.9
Khorezm province	265.90	263.76	99.2	230.8
Republic of Karakalpakstan	510.40	357.87	70.0	360.4
TOTAL in project territories	1050.91	857.34	81.6	628.1
1 Alat	21.52	17.68	82.1	No available baseline
2 Karakul	25.08	21.80	86.9	No available baseline
3 Amudarya	39.46	26.93	68.0	No available baseline
4 Muynak	26.12	25.10	96.0	No available baseline
TOTAL in project pilot districts	112.18	91.51	81.6	

Targeted Irrigated areas

In the targeted districts, the irrigated areas on which the project will demonstrate sustainable water management are distributed as follows:

- In **Alat and Karakul districts** of Bukhara province, all of the irrigated land is located along the border of these two districts. In the northwestern part of Alat, irrigated areas fall under the command of 7th pumping station of Amubukhara machine canal, as well as main Alat canal, which are adjacent with irrigated areas in Karakul district (in its southern part) under the command of Amukarakul and Yomonjar canals.

- In **Amudarya district of Karakalpakstan**, practically 40% of the territory is irrigated area located along the main course of Amudarya.
- In **Muynak district**, there are only approximately 2,000 ha of irrigated land that are used for agricultural cultivation. The remaining area is irrigated pastureland. Irrigated areas in Muynak district are assigned to settlements - to the south around Dustlik, Kyzyljar and Jalgyzterek settlements. Part of irrigated areas is located under the command of Mezhdurechensk reservoir near settlements of Shege, Porlytau and Aral, and another part is located within the city of Muynak and settlement of Uchsai.

Fig 4: Targeted irrigated areas in the 4 districts



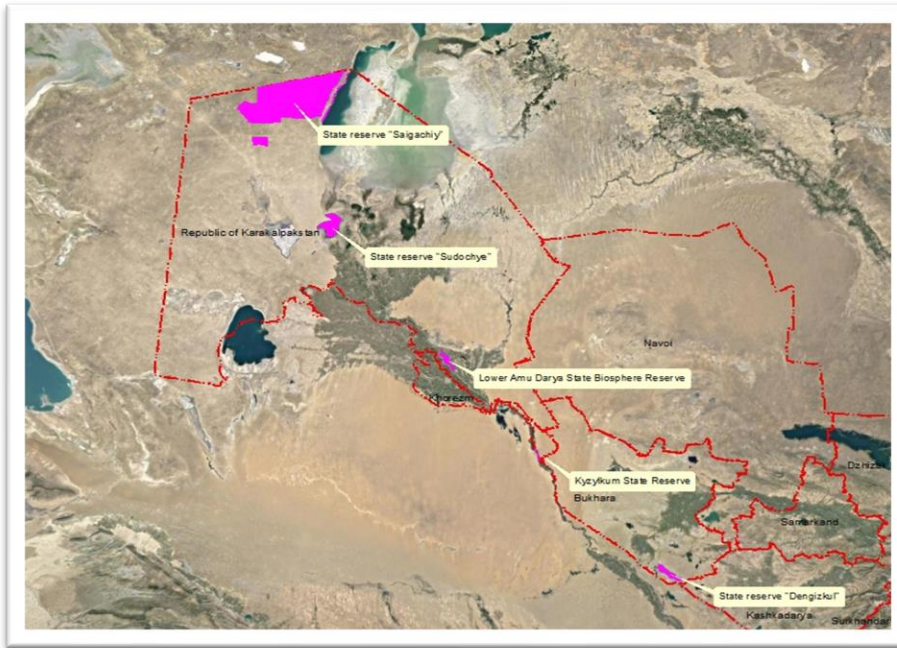
KBAs/IBAs and PAs targeted by the project

A comprehensive and detailed assessment of Key Biodiversity Areas has not yet been conducted for Uzbekistan, but many KBAs have been identified using partial data sets.

Table 4 lists the lakes, wetland and riparian KBAs that will be targeted by the project, based on data in the World Database of Key Biodiversity Areas. These are also areas where the national strategy for development of the protected areas system foresees the establishment or expansion of protected areas.

Brief description of the Existing Protected areas under the project scope:

Fig. 7 Targeted existing PAs



1) Kyzylkum State Reserve

Kyzylkum reserve (10 311 ha) is located in the midsection of Amudarya, stretching over the territory of two provinces: Bukhara province, Romitan district (1 467 ha) and Khorezm province, Khazarasp district (8 844 ha). The reserve is located in the riparian part, its distance from northwest to southeast is 30 km, includes a riparian strip of 3 km and covers two types of ecosystems - tugai, located in the right-bank part of Amudarya valley, and desert with ridge-hilly sand landscape adjacent to Amudarya valley from the east. Desert areas are underrepresented in the reserve, due to its limited size. Settlements located in close vicinity to Kyzylkum reserve : In the Khorezm province side: to the north-west, 0.5 km from the reserve perimeter, there is a water pumping station of Khorezm province, 15 km from the reserve there are Ksonka community of Tuprakkala district and communities Fayzullo Bobo, Abdal and Urinboy-Dargon. On the north-eastern side, the Khorezm province borders on Khorezm state forest desert zone. In the Bukhara province: 5 km to the east there is KyzylRavat village, where farms Karlygash-Dzhalgas, Fayzi-Hasan, Nurislam-Davlat, Kenes-Maksat and Kyzylkum state forestry are located. South-western part borders on Turkmenistan.

2) Lower Amudarya State Biosphere Reserve

Lower Amudarya State Biosphere Reserve was established in 2011 (RCM UZ №243 of August 26, 2011). The Biosphere reserve is located in the Republic of Karakalpakstan (Beruniy and Amudarya districts) with a total area of 68 717.8 ha. Zones: protected – 11 568.3 ha; buffer and transitional – 57 149.5 ha. Buffer and transitional zone lands remain in holding of leasers/land users and owners located in these zones. The reserve is located in the floodplain of the lower Amudarya, where significant areas of tugai forests still exist. The area contains several dozen monuments of ancient culture. Settlements located in close vicinity to Lower Amudarya Biosphere Reserve: In Beruniy district: Oltinsoy, Biybozor and Beruniy communities. In Karauzyak district: Karatau settlement.

In Amudarya district: Kuyik Kupir, Nazarhan, Kyzyl choli, Uzbekiston and Jumurtau communities. In Gurlan district of Khorezm province: Buzkala, Boldoqli and Uzbekiston communities.

3) State refuge "Dengizkul"

Established as a refuge in 1993, it is located in Alat district of Bukhara province, its area is 50 thousand ha. The refuge is under State Committee on Ecology and Environment Protection. The area does not have its own management unit and staff, the protection of the area, is organized in the form of task force raids by the State Committee staff. According to the results of management efficiency assessment (METT, April, 2020), the refuge does not have a management plan, permanent staff and PA management budget. Over the years, the lake's flora and fauna has been monitored during oil and gas operations of LUKOIL Uzbekistan Operating Company LLC.

4) State landscape (integrated) refuge "Saigachiy" was established in 2016 (RCM RU №238 of July 22, 2016). It is located in Muynak and Kungrad districts of the Republic of Karakalpakstan. The Integrated refuge is a legal entity and was established in the form of a state nature conservation entity. Total area is 628 300 ha. The landscape refuge is located in the northern

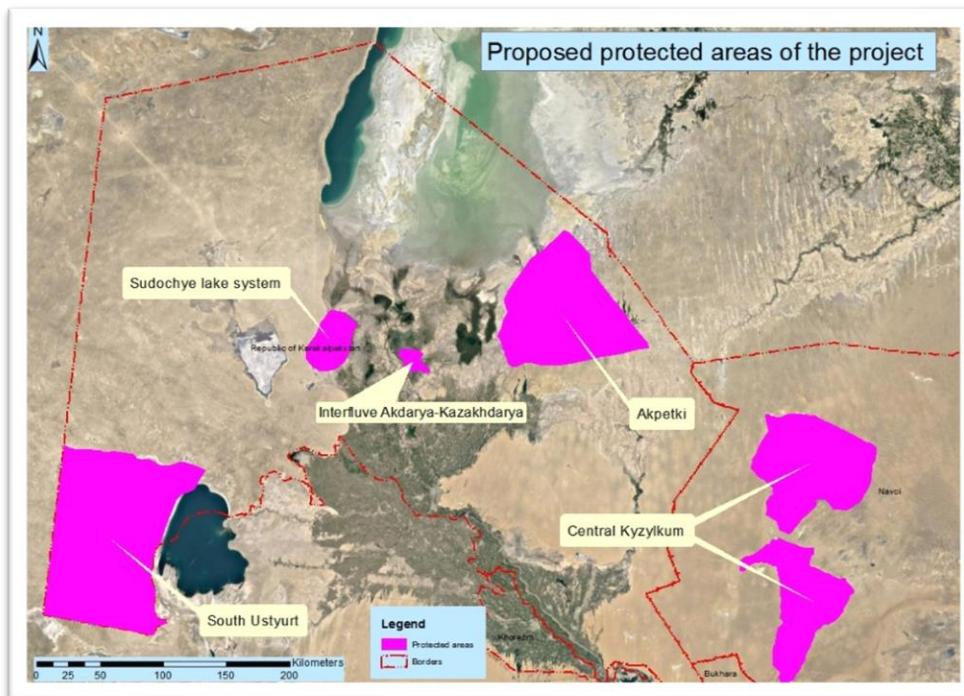
part of plateau Ustyurt in Uzbekistan. Majority of landscapes of the refuge are moderately degraded and relatively well preserved. Settlements located in close vicinity to State integrated refuge "Saygachiy". The refuge area is divided into 5 zones: Beleouly 24 765, Churchuk 200 884, Almanbet 371 451, Duana 23 454, and Jiydely 7 746. Refuge areas Beleouly, Churchuk, Almanbet, and Jiydely are located in the vicinity of settlements. Distance between Beleouly area and Jaslyk settlement in Kungrad district is 90 km, between Churchuk area and Karakalpakstan settlement in Kungrad district - 70 km, between Almanbet area and Jaslyk settlement in Kungrad district - 200 km. Distance between Beleouly area and Bostan community, which is located within Karakalpakstan settlement in Kungrad district, is 40 km.

5) State refuge "Sudochoye"

State wildfowl refuge "Sudochoye" was established in 1991. The goal of the refuge is the conservation of a biological ecosystem of wetlands of Amudarya delta, protection of migratory birds and their breeding and resting sites. The refuge is under the mandate of State committee on Ecology and Environment Protection and located in the north-western part of the current Amudarya delta, in Muynak district of the Republic of Karakalpakstan, in the Aybigur lowland. Its area is 50 thousand ha. Settlements located in close vicinity to State refuge "Sudochoye". Distance from Nukus to the nearest southeastern part of the Sudochoye lake system is about 270 km. The nearest to the lake system Sudochoye is Muynak district's Bozatov community and village Karajar, located at the distance of 10 km. In the village there are 37 households with 157 residents. Distance from Ravshan community (431 households with 3 168 residents) in Kungrad district to the Sudochoye lake system is 40 km.

Brief description of the proposed new Protected Areas under the project scope:

Fig. 8: Proposed new PAs



1) **Proposed protected area "South Ustyurt"**: Proposed form of protection: National nature park (IUCN category II) with functional zoning of the territory: defined protected, recreation and other economic zones, which will ensure the optimization of the natural environment of the area and conservation of the southern (extra arid) version of reg and cliff landscapes. It will ensure integrated conservation of habitats, globally endangered and rare species of animals representative of desert ecosystems of plateau Ustyurt and wetlands of lake Sarykamysh.

2) **Proposed Protected area "Central Kyzylkum"**: Proposed form of protection: National nature park (IUCN category II) with functional zoning. Establishment of the national nature park will allow the ensuring of long-term conservation of typical landscapes and all existing ecosystems, will facilitate the integrated conservation of biodiversity in closed basins, residual

hills of low-mountain terrains and sandy ecosystems of Kyzylkum desert. Establishment of the PA will allow reducing the level of threats to biodiversity. Taking into account the high touristic potential (presence of paleontological objects, natural monuments and others), the selected form of protection will allow combining the tasks of conservation and sustainable use of biological resources and help in mainstreaming the economic utilization of the territory.

3) **Proposed Protected area "Sudochoye system of lakes"**: Proposed form of protection: State refuge with formation of a legal entity, which will help to maintain stable sanitary condition of the ecosystem of lake Sudochoye through supplying its main part with water from Amudarya. Establishment of the refuge will help to strengthen mechanisms of conservation of natural objects and ecosystems, conserve rare and globally threatened species of water and semi aquatic fauna and their habitats. Under the proposed protection regime, commercial fish resources will be available in accordance with the law allowing enterprises to carry out their activities in the prescribed manner.

4) **Proposed Protected area "Mejdurechye Akdarya-Kazakhdarya"**: Proposed form of protection: State refuge with formation of a legal entity will help to strengthen mechanisms of ensuring the conservation of natural objects and ecosystems, preserve and restore the deltaic type of tugai landscape, rare and globally threatened species of water and semi aquatic fauna and their habitats.

5) **Proposed Protected area "Akpetki"**: Proposed form of protection: State refuge with formation of a legal entity will strengthen mechanisms of conservation of natural objects and ecosystems, help conservation and restoration of the ecosystems

Targeted Pastures and Forests proposed for demonstration of SLM measures

Fig. 9: All targeted project areas

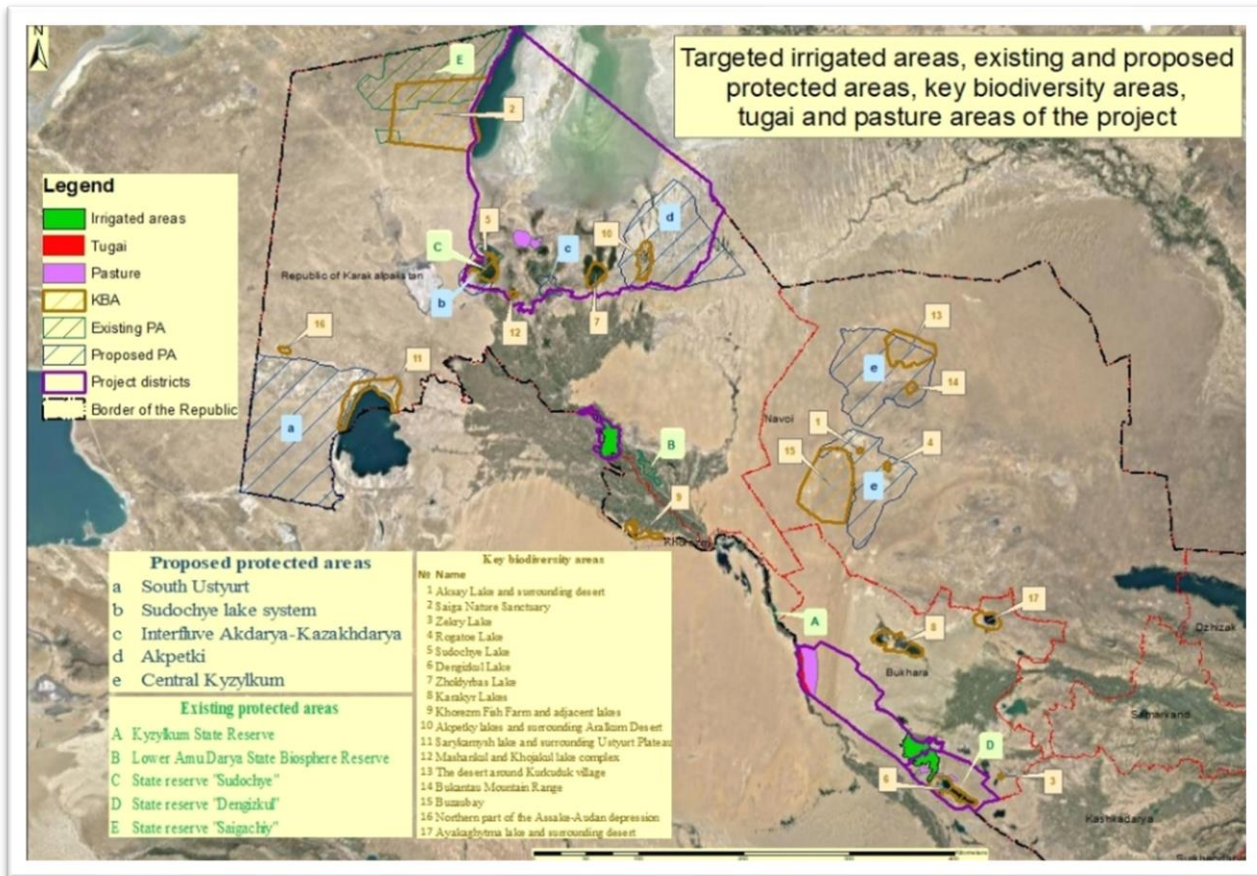


Fig 10 Alat district pastureland targeted areas

The project will work with Alat leshkoz (forestry enterprise) on pasture management plans, on areas located in south-west part of Alat district.

Fig. 11 Dengizkul lake system (Alat district)

Around Dengizkul systems of lakes, the project will focus on restoration of degraded land around Dengizkul lakes systems, near Amu-Karakul canal. The project's partners will be Alat forestry Section Hojadaylat and the local communities of Kumkishlak, Arabhona and Okpulat villages.

Fig. 12 Proposed Tauranga/tugai areas along Amudarya river (Karakul district):



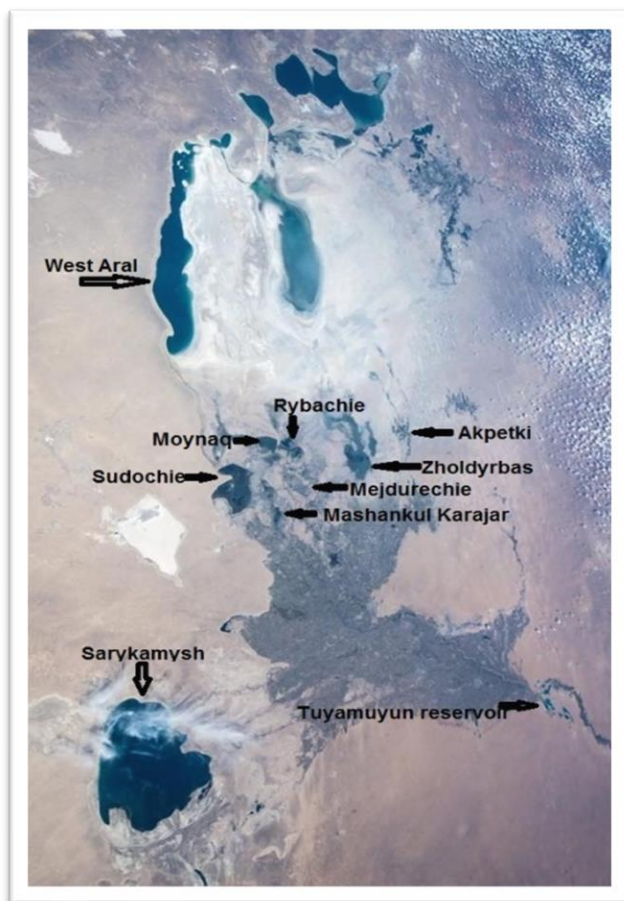
In Karakul district, the project will support the development of forest management plan to prevent the degradation of tugai/turanga forest along Amudarya river.

Fig. 13 Proposed riparian forest area along Amudarya river (Amudarya district):



In Amudarya district, the project will support tugai/tauranga forest management plans in the buffer area of the Lower Amudarya Biosphere Reserve. The project will work together with Kipchak forestry and Beruny forestry enterprise and with Lower Amudarya Biosphere Reserve management unit.

Fig 14 KBAs/IBAs, lakes and water bodies in the lower Amudarya (largely part of Moynaq district):



In Moynaq district, the project will develop a forest management plans for tugai forests and will assist with natural regeneration of turanga and tugai forests, with tamaryx, silverberry and sea buckthorn, around lakes of Akpetki system (Ashshikul and Ahshoki, Orda, Soral lakes) along Kokhdarya collector.

The project will work with Kazakhdarya forestry and hunting enterprise. Areas situated in the lakes' proximity belong to Kazakhdarya forestry enterprise.

Annex 23: Legal/Institutional Assessment

Legal, Policy, and Institutional Framework related to Water, Land and Biodiversity Management

Water management

The **Law of the Republic of Uzbekistan** of 6 May 1993, No. 837-XII "On water and water use", with subsequent amendments (1997-2020), is the main national legislative act in the field of water regulation. The key issues regulated by the Law of the Republic of Uzbekistan "On water and water use" are: (i) competences of public authorities and management bodies in the field of water regulation (ii) participation of non-governmental non-profit organizations and citizens in water management (iii) water management: coordination (intersectoral) and (iv) water management: defining general and special water use and water consumption regimes, issuance of permits. Furthermore, a large number of decrees and resolutions adopted in recent years (2017-2020) led to significant changes in institutional and legal platforms in the country. Water issues are also addressed in land and forestry legislation and other laws on groundwater resources, nature protection. In the recent years, Uzbekistan has implemented significant environmental reforms, prompting the need of harmonization of the water related legislative and normative acts with the legislation on environmental protection.

Decree of the President of the Republic of Uzbekistan of October 30, 2019, No. UP-5863 "On approval of the Concept of environment protection of the Republic of Uzbekistan until 2030", it is the most important document that will address some of these coordination aspects and the most relevant for the project.

The **Roadmap for the Implementation of the Concept for the Development of Water Resources Sector** of the Republic of Uzbekistan (2030) referred at as "The Concept" was approved in 2020 and the related regulations are estimated to be finalized by 2022. The Concept is particularly relevant to the project, and it outlines the most important measures for the development of water management in the country: (i) Improving the financial sustainability of water management through the denationalization and decentralization of water management, commercialization of water management organizations, the introduction of outsourcing mechanisms, including public-private partnerships (ii) A phased increase in the level of coverage by water users of the costs of water supply. At the moment, payments by agricultural producers for water delivery services are insignificant (they cover only a small part of delivery costs) and do not have a direct link to the volumes of its consumption (iii) Administrative reform in the water sector, introduction of modern management methods that are consistent with the market principles, increasing the role and participation of water users, other stakeholders and the public in water management. It will provide for a clear delineation of institutional mandates of the main state agencies and structures in the water sector (iv) The introduction of transparent and effective principles for the distribution and redistribution of rights to receive water. The water distribution system will be based on transparent and applicable user rights to receive water in the form of long-term quotas and permits for special water use. In addition, it is planned to create a fair and transparent system for exchanging water rights or their parts (if, for example, a farmer does not need to use his quota, he can choose to sell it to a buyer, usually a farmer who needs more water) (v) Technological modernization of hydraulic structures and pumping stations, ensuring their safety, reducing water losses in irrigation systems, reducing energy costs for water delivery. Modernization will be funded through the state budget and through private investments (vi) Creating effective incentives for the rational use of water, introducing energy and water-saving technologies in the water sector, optimizing the structure of water consumption. It is proposed to use various tools that stimulate the use of water-saving technologies and increase the efficiency of water use (vii) Development of scientific and innovative potential in the water sector, improvement of the training system for the water sector (viii) Improving the system of forecasting and accounting for water resources, improving the quality of data and their availability to ground effective decision making.

Regional water cooperation

Disputes over water have become one of the most important stumbling blocks for regional cooperation in the Aral Sea Basin. The establishment and functioning of regional organizations for water resources management, like the International Fund for Saving the Aral Sea (IFAS) and its institutions, the Inter-State Commission for Water Coordination (ICWC), the Inter-State Commission on Sustainable Development, their secretariats and scientific and information centers, as well as the river basin organizations (BVOs), reflect this political reality. However, most of the founding documents of the Fund are political declarations and statements expressing the intent to cooperate. The few legally binding agreements, ratified by parliaments, that constitute the legal basis of IFAS do not provide for real collective decision-making power and have not even established a modest operating budget for the Fund (UNECE 2010).

The most relevant agreements in which Uzbekistan is involved are: (i) Agreement "On joint actions to address the problems of Aral Sea and Aral Sea region, to ensure environmental recovery and socio-economic development of Aral Sea region" (Kzyl-Orda, March 26, 1993). Parties: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan; (ii) Agreement between the 5 countries of Central Asia "On cooperation in the field of joint management of water use and protection of interstate water sources" (Almaty, February 18, 1992). IFAS is performing a useful role by providing a forum for consultations and some information exchange. In the case of the Inter-State Commission on Water Coordination (ICWC), the adoption of protocols on water releases increasingly served as loose guidelines rather than legally binding and enforceable decisions. In low-water years or periods of drought, protocols adopted by ICWC were often disregarded by upstream countries (Linn 2018). Despite the declared readiness of the Central Asian countries to cooperate, in reality, the region's water management policy is still driven by national strategies and priorities.

Land management

Land Code of the Republic of Uzbekistan. The "Land Code" is the main law on land use, land holding and land planning in agricultural sector, which was adopted on April 30, 1998, by the Oliy Majlis of the Republic of Uzbekistan. Adoption of this new code was driven by the development of various forms of economic activities and ownership, liberalization of the economy and other factors. The main objectives of the Land Code ensure, land regulations in the interests of present and future generations, scientifically sound, rational use and protection of land, increase of soil fertility, conservation and improvement of the environment, creation of conditions for equal development of all forms of economic activity, protection of rights of legal entities and individuals to land plots, as well as strengthening the rule of law in this area. The Code includes 14 Chapters and 91 Articles. Under this law, agricultural land is land provided for agricultural needs or intended for such purposes.

Decree of the President of Uzbekistan "On measures to improve monitoring of the conservation and rational use of lands, enhance geodetic and cartographic activities and streamline the maintenance of state cadastres" (May 31, 2017, No.УП-5065). The decree of the President of Uzbekistan sets out key objectives and areas of activity of the State Committee of the Republic of Uzbekistan on land resources, geodesy, cartography and state cadaster: (i) ensuring the implementation of unified state policy on the rational use and conservation of land, geodetic and cartographic activities, implementation of systematic state control over the rational use and conservation of land, as well as state geodetic supervision of strict compliance with the relevant legislation; (ii) development and implementation of state programs to improve soil fertility, rational use and conservation of land, preparation of proposals on key directions of state policy in the field of land management, land use and soil fertility improvement; (iii) participation in the development of land use forecasts and plans, as well as promising land use patterns; (iv) monitoring of agricultural lands, crops sowing and growing using unmanned aerial vehicles, ensuring the functioning of satellite navigation systems using geodetic data and cartographic materials, etc.

Law of the Republic of Uzbekistan "On Farming". The law establishes the organizational and legal principles of farms' creation, their rights and obligations, their relationship with other legal entities and individuals. A farm is an independent business entity with the rights of a legal entity based on the joint activities of members of a farm engaged in agricultural commodity production using land plots granted to it on a long-term lease. Land plots are provided to farms through bidding process on the basis of tenancy for a period of up to fifty years, but not less than thirty years. The size of the land for farming is determined on a case by case basis by the authority providing the land, taking into account local conditions and the number of a given farm members. A farm, in the manner and on the terms prescribed, may lease additional land for agricultural production.

Law of the Republic of Uzbekistan "On Dehkan Farms". The law establishes the legal basis for creation, operation and liquidation of dehkan farms, regulates their rights and obligations, their relations with other legal entities and individuals. Dehkan farm - is a family based small-scale farm engaged in the production and sale of agricultural products based on use of personal labor of family members on a personal plot of land provided to the head of the family for lifetime inheritable possession. The size of a land plot provided for a dehkan farm is determined based on the availability of land resources. The decision to provide a land plot for dehkan farming is made by a district authority (hokim). Family of each member of an agricultural cooperative (shirkat), an employee of other agricultural and forestry enterprise, institution and organization, as well as the families of teachers, doctors and other specialists living in rural areas, are provided with plots of land for dehkan farming on a lifetime inheritable possession basis, the size of which, including the area occupied by buildings and courtyards,

is up to 0.35 hectares on irrigated and up to 0.5 hectares on non-irrigated (rain fed) lands, and up to 1 hectare on non-irrigated (rain fed) lands in steppe and desert areas

Law of the Republic of Uzbekistan "On Pastures" (2019). The law defines the pastures as lands with natural vegetation cover that is used as livestock feed. They are divided into desert, semi-desert, sub - mountain, mountain and lowland pastures, provided and not provided with water. Pasture use and conservation management is carried out by the Cabinet of Ministers, local authorities, as well as by specially authorized state bodies. According to the law, pasture users may establish associations for joint use and conservation of these lands. Pastures are provided to legal entities and individuals for permanent possession, lease and temporary use by decisions of hokims. On the lands of the state forest resources pastures are used by permission of state forestry authorities. The Law emphasizes the need for a rational use and protection of pastures (art 7) and calls for the participation of local communities and pasture users in the sustainable pasture management through restoration and protection measures (art 14) and underlines the importance of training, networking and capacity building for pasture users in sustainable pasture management techniques such as rotation grazing, conservation, restoration methods.

Law on forests (Law of Uzbekistan No.475 of April 16, 2018.) lays down priority areas of the state policy related to conservation, protection, reproduction, restoration and use of forests. **The Resolution of the President of the Republic of Uzbekistan of August 23, 2019, No.4424** "On measures for efficient use of forests in Uzbekistan" sets out the parameters of the state program on development of forestry for 2020-2024, including: for Republic of Karakalpakstan - creation of forests on the area of 2 million ha; creation, based on signed contracts, of field-protecting afforestation on irrigated lands of agricultural enterprises on the area of 1,210 ha; for Bukhara province - creation of forests on the area of 45,000 ha; creation, based on signed contracts, of field-protecting afforestation on irrigated lands of agricultural enterprises on the area of 1,110 ha.

Main policies

Strategy for development of agriculture in Uzbekistan for 2020-2030 with a specific focus on the rational use of natural resources and protection of environment, provide for expansion of forest by 20% in 2021, in 2025 and 2030 by 25% and 30% respectively.

The Concept of the development of forestry until 2030- It is expected that the Concept will be approved by a special Decree of the President during May-June of 2020. This document will define goals, objectives and priority areas of mid-term and long-term forestry development in Uzbekistan and will serve as a foundation for development of programs for further development of the forest-based sector.

Concept of environmental protection in Uzbekistan until 2030 , introduces a moratorium on cutting valuable wood species that are not included in the state forest resources. This moratorium will stay in force until December 31, 2020. The Concept's roadmap provides for the expansion of areas of forest plantations on Uzbek part of the dried-up Aral seabed to 60% of its territory by 2030, as well as increasing the area of the state forest resources covered with forest to reach 4.5 million ha.

Road Map for Combating Desertification and Drought 2019-2023 was adopted in compliance with the Resolution of the President of Uzbekistan of February 22, 2018 and approved by the Cabinet of Ministers of Uzbekistan on April 26, 2019.

Bukhara green barrier provides for green shelterbelts on more than 200 000 ha in Bukhara province during 2018-2020.

Biodiversity and Protected Areas management

Law "On protected areas" (2004) is the main law that regulates the organization, protection and use of protected areas. The law sets out the following categories of protected areas in Uzbekistan: state reserves; integrated (landscape) nature reserves; natural parks; state natural monuments; territories for conservation, reproduction and restoration of individual natural sites and complexes; protected landscapes; territories for managing individual natural resources. The existing classification of protected areas considers the recommendations of IUCN and allows the creation of a unified ecological network of protected areas of various regimes that provide an opportunity to merge environmental and economic interests. The Law is implemented by a suite of Regulations.

Resolution of the President of the Republic of Uzbekistan "On Measures to enhance PA's public administration" (No.4247 of March 20, 2019) was adopted in order to increase PA management efficiency and ensure their further development. According to this Resolution, state reserves and Lower Amu Darya State Biosphere Reserve have been transferred to the system of State committee on Ecology. Approved Roadmap sets out plans for expansion of PAs through establishment of

five new PAs in 2019–2022: Southern Ustyurt State Reserve (1.4 mln. ha), State reserves Beltau (188.3 thousand ha), Akpetki (587.7 thousand ha), and Akdarya-Kazakdarya Interfluve (22 thousand ha), as well as the Sudochoye lake system state reserve (from 50 to 88 thousand ha) on the grounds of Sudochoye state reserve. The Resolution also mandated the establishment of the Main Directorate of Biodiversity and PAs under State committee on Ecology.

Resolution of the President of the Republic of Uzbekistan No.3286 of September 25, 2017 "On measures for further enhancement of the system of protection of water bodies" forbids illegal clearing of riverbeds and strengthening their banks, extraction of non-metallic minerals to prevent the negative impact of these activities on the environment. Water conservation zones and riparian corridors are designated as protected landscapes. The established area of water conservation zones along rivers in Uzbekistan is 155 416.5 ha.

Main policies

National Strategy for Biodiversity and Action Plan 2019-2028 (CMR No. 484 of June 11, 2019). The strategy provides, as one of its priorities, for expanding the area of PAs to 12% of the country's territory and creating a unified biodiversity monitoring system with the reference ecosystems of state reserves at its core. The first phase of Strategy implementation (2019-2023) includes establishment of 5 PAs in Karakalpakstan.

"Concept of environment protection of the Republic of Uzbekistan until 2030" (No.УП-5863 of October 30, 2019). The Concept sets out measures for conservation of biodiversity and its protection from anthropogenic impact and other negative factors, as well as expansion of PA area. The Concept implementation is expected to increase the territory of I-V category PAs by 12% by 2030. Concept Roadmap for 2019-2021 lays out measures for protection and reproduction of biological resources: Increasing the area and density of forest plantations and improving their quality; Implementing activities to bring the total area of I-V category PAs to 7% of the territory of the country; Introducing IT in maintenance of state cadasters of animals and plants, PAs and their monitoring.

"State Program for development of Aral Sea region for 2017–2021" plans tourist infrastructure facilities with new routes and a network of stationary and seasonal tourist accommodations through active involvement of local communities in the territories adjacent to Lower Amu Darya Biosphere Reserve, Lake Sudochoye, Forest hunting enterprise Kungrad, and State forest hunting enterprise Kazakdarya. Implementation of planned forest protection measures on the dried seabed of Aral Sea will reduce salt and dust transfer, contribute to restoration of tugai forests and strengthen the system of PAs in Amu Darya Delta.

UN Multi-partner Human Security Trust Fund for Aral Sea region in Uzbekistan (MPHSTF) (November 2018 - December 2023) covers Karakalpakstan and Khorezm province of Uzbekistan and uses the concept of human security as its program focus. The main objective of the Trust fund is the development and implementation of Unified strategy for assisting the Aral Sea region together with donor organizations based on assessment of needs in the region. MPHSTF is funded by international donors and financial institutions, Government of Uzbekistan, individual donations, business community contributions and etc. Generated funds will be allocated for implementation of projects/programs within the framework of Unified development strategy for Aral Sea region. Government of the Republic of Uzbekistan pledged \$ 6.5 million contribution to the Trust fund, \$ 2.0 million of which has already been transferred. EU Delegation allocated \$ 5.0 million. (<http://aral.mptf.uz/site/news/page111.html>).

Uzbekistan fulfills its commitment to conservation and sustainable use of biodiversity in the framework of the following International Conventions and Treaties:

1. UN Convention on Biodiversity (UNCBD, 1992) - First international convention on sustainable use and conservation of biodiversity. Uzbekistan joined on May 6, 1995.
2. UN Convention to combat desertification in those countries experiencing serious drought and/or desertification, particularly in Africa (UNCCD, 1994). Uzbekistan signed on December 7, 1994, ratified on August 31, 1995.

3. Convention for protection of world cultural and national heritage UNESCO (1995). Uzbekistan ratified on December 22, 1995.
4. Convention on international trade in endangered species of wild fauna and flora (CITES) (1973). Uzbekistan ratified on April 25, 1997.
5. Convention on wetlands of international importance especially as waterfowl habitat (Ramsar) (1972; Uzbekistan joined in 2002) aimed at conservation and rational use of wetlands, by which is meant their sustainable use for the benefit of humanity through practices that are compatible with conservation of natural ecosystems. Uzbekistan joined on August 30, 2001. Dengizkul lake (project site) in 2001 was included in the list of Ramsar reservoirs as wetland of international importance especially as waterfowl habitat.
6. Convention on conservation of migratory species of wild animals (Bonn) (CMS, 1979) aimed at conservation of species migrating by land, sea and air and their habitats along the whole migration route. Uzbekistan joined on May 1, 1998.
7. Central Asian mammal initiative (CAMI) and relevant work plan were adopted by CMS countries at the 11th International conference of the parties in 2014. Through this initiative aimed at strengthening conservation of migratory mammals in Central Asia, the Convention seeks to provide the platform for coordinated and consistent measures to reduce the main threats to survival of migratory species.
8. Agreement of conservation of African-Eurasian migratory waterbirds (AEWA) (1995). Uzbekistan signed on December 12, 2003.
9. Memorandum of understanding on measures for conservation of thin-billed curlew *Numenius tenuirostris* (1994);
10. Memorandum of understanding on measures for conservation and restoration of Bukhara deer - *Cervus elaphus bactrianus* (2002);
11. Memorandum of understanding and action plan for conservation, restoration and sustainable use of saiga - *Saiga tatarica* (2006).

Land Degradation Neutrality (LDN) and Sustainable Development Goals (SDGs)

The voluntary LDN target adopted by Uzbekistan, with the support of the LDN Target Setting Programme, is the following “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”. LDN assessment indicator is the proportion of land that is degraded (irrigated and non-irrigated) out of the total land area.

The Government of Uzbekistan has adopted the national indicators for the Sustainable Development Goals (SDGs) – through a Decree of the Cabinet of Ministers of the Republic of Uzbekistan "On Measures for Implementation of National Sustainable Development Goals and Targets for the Period up to 2030". By this decision, Uzbekistan approved national sustainable development goals, targets and indicators until 2030, including the target 15.3 in the area of land degradation neutrality (LDN). The Decree provided for the setup of a Coordination Council on the Implementation of national goals and targets in the field of sustainable development, ensuring inter-sectoral coordination and an integrated approach to achieving the SDGs. In addition, the Road Map was adopted and is being implemented for: a) setting up a development concept for each SDG for the period of 2030 and an annual action plan for implementation of SDGs; b) developing a system of indicators for implementation of SDGs; c) monitoring and reporting on the implementation of national SDGs starting from 2019.

Climate Change

Uzbekistan’s Intended Nationally Determined Contributions (INDC) (2017) sets climate change adaptation as a priority in several areas. This includes considering adaptation in the agriculture, water management, and social sectors, as well as applying ecosystem-based adaptation to efforts such as mitigating the impacts of the Aral Sea disaster and adaptation of strategic infrastructure and production facilities. The INDC outlines the country’s planning process to strengthen adaptation and mitigation actions including political measures, implementation of climate actions, development of scientific research and education, and inception of systems for monitoring and evaluation (the latter specific to mitigation).

Legislative mandates

The main institutional mandates are distributed at different levels: (i) Legislative: Legislative Chamber and Senate of Oliy Majlis of Uzbekistan and Province and district Councils of People’s Deputies. (ii) Public administrative bodies: Administration of the President and Public Administration Bodies at province, district and city levels(khokimiyats) (iii) Line Ministries and

State Committees (iv) Local self-governance bodies (village and mahalla assemblies). At the local level, the Councils of the People's Deputies (the 'Councils') and *khokims* (governors), appointed by the President, constitute the basis of the government in the regions, districts and towns. Local governments (*khokimiat*) are subdivided into regional (*viloyats*), district (*rayons*) and city administrations.

Relations between different levels of government are primarily regulated by the Constitution of Uzbekistan (1992) and the Law on Local Public Administration (1993). Inter-relations between central and local bodies are characterized by subordination, mutual cooperation and strict separation of functions and powers. In the system of organs of executive power, hierarchical centralization prevails. In the implementation of their administrative functions, the organs of local government are subordinated to higher ones (i.e. regional-district-city). The majority of management decisions are enacted, and public services are provided, by local governments according to the principle of vertical branch subordination (i.e. national ministry – principal branch department in a regional *khokimiat* – the respective office in district or city *khokimiat*). The *khokims* of regions, districts and cities are the highest officials of the respective regions, districts and cities. They act simultaneously as heads of representative and executive organs in their territories.

The land administration sections of the regional (*viloyat*) administrations, reporting directly to the *khokim*, are responsible for the administration of land cadasters, addressing land use conflicts and formulating long-term development strategies. Local government institutions also maintain information on the state of the environment within their respective territories (regional, district). Local government in Uzbekistan is further supplemented by self-governing community organizations - mahallas⁸² - in *auls* (villages)⁸³, *kishlaks* (rural settlements) and cities. The structure and functioning of these mahallas are primarily regulated by the Law on Community Self-Governments (1999). Nature protection, including ownership and use of land, subsoil, water and other natural resources; use of fauna and flora; protection of the environment; ecological security; regulation of protected areas; protection of historic and cultural monuments; and scientific research – falls under the joint authority of central and local government institutions.

Agricultural development – including support of agricultural production; planning of the use of agricultural lands; and transfer of agricultural lands (with the exception of state land) falls under the direct executive authority of local government. Administration of the rangeland and forestland (state land) falls under the responsibility of the State Committee on Forestry, coordinating the activities of local forest enterprises, forest experimental stations and hunting enterprises. Water management falls under the responsibility of the Ministry of Water Resources, coordinating the activities of Basin Irrigation System Authorities (BISAs) consisting of: Main Canal Management Organization (MCMO) and Irrigation System Authorities (ISAs). The Irrigation System Authorities (ISAs) have direct contractual responsibilities with Water Users Associations (WUAs). The Water Users Associations (WUAs) are non-profit, non-government associations consisting of farmers themselves. Responsibilities of WUAs are the organization of the rational use of water (delivered by BISAs/ISAs) and farm-level Operations and Maintenance (O&M) of the irrigation and drainage system.

Government AGENCY/department/committee	WATER, LAND, BIODIVERSITY RELATED RESPONSIBILITY
Committee on Agriculture, Water resources and Ecology of the Senate of <i>Oliy Majlis</i>	Committee on Agriculture, Water resources and Ecology of the Senate of <i>Oliy Majlis</i> performs mainly parliamentary functions such as law making and control. This legislative function implies that the committee considers and draws conclusions on draft laws submitted by the Legislative Chamber of <i>Oliy Majlis</i> , drafts resolutions and other regulatory legal acts of the Senate in the areas of agriculture, water resources and ecology.

⁸² Refers to a community of people residing in a specific territory - mahallas may vary in size from 150 to 1,500 families. In cities, mahallas are generally established by the residents of a particular residential quarter or suburb.

⁸³ Localities with over two thousand inhabitants which are situated in the vicinity of industrial or construction enterprises, railway stations or other important 'objects'

Committee on Agriculture and Water resources	Committee on Agriculture and Water resources issues of the Legislative Chamber of <i>Oliy Majlis</i> is mainly responsible for drafting legislation in the areas of agriculture and water resources.
Committee on the issues of Ecology and Nature protection	Committee on the issues of Ecology and Nature protection of the Legislative Chamber of <i>Oliy Majlis</i> is mainly responsible for drafting laws in the area of nature protection.
State Committee on Ecology and Environment Protection (<i>Goskomekologiya</i>)	The State Committee on Ecology and Environment Protection (<i>Goskomekologiya</i>) is accountable to the Senate of <i>Oliy Majlis</i> of Uzbekistan. Its primary responsibility is to develop, regulate, and coordinate the implementation of, all environmental legislation and policies in the country. The <i>Goskomekologiya</i> is the focal point for implementation of the CBD in Uzbekistan. It has a number of regional branches, one in each of the 12 regions of Uzbekistan as well branches in the city of Tashkent and the Republic of Karakalpakstan. The heads of the regional <i>Goskomekologiya</i> are appointed by the Chairman of the national <i>Goskomekologiya</i> , with the consent of the regional administration head. The regional <i>Goskomekologiya's</i> chairmen report directly to the Chairman of the national <i>Goskomekologiya</i> .
Ministry of Water Resources	The Ministry of Water Resources coordinates the water sector in Uzbekistan. A reorganization in 2003 resulted in a transfer from a provincial and district administrative scheme to a water basin set-up in which irrigation and drainage systems are managed by 10 basin irrigation system authorities (BISAs), where each BISA is structured according to main irrigation canals and divided into irrigation system authorities (ISAs). Another reorganization in 2018, resulted in the creation of 13 Basin Authorities (BISAs), each BISAs administrative territory coinciding largely with the district territories.
Basin Irrigation System Authorities (BISAs)	BISAs operate the water infrastructure in the river basins such as water reservoirs, dams, water intakes (gravitational and pumps), and riverbed protections The Basin Irrigation System Authorities (BISAs) are responsible for allocation of available water resources to the Irrigation System Authorities (ISAs). The main basin management authorities in the project targeted areas are the following:
Amu-Bukhara BISA	Will play important role in supporting the achievement of Component 1 outputs. It will help in ensuring timely water release for irrigated lands and KBAs within Bukhara province. Head: Fayzillayev Erkin Bahshilloevich Ph: (65) 225-09-35 E-mail: ab.havza@minwater.uz Address: Bukhara city, B.Nakshband Str., 297/1
Left-bank-Amudarya BISA	Will play important role in supporting the achievement of Component 1 outputs. It will help in ensuring timely water release for irrigated lands and KBAs within Khorezm province. Head: Urazov Atahan Yakubbaevich Ph: (62) 223-14-05 E-mail: xz.havza@minwater.uz

	Address: Urgench city, M.Khorazmy Str. 1st block, 1
Niznedaryinskiy department under BWMA "Amudarya" (former Nukus hydrounit)	Formerly known as Nukus department, is responsible for operation of Takhiatash hydro technical facility, manage river water intake facilities for Han-yab and Jumabaysaka canals, controls all water intakes from river section between hydro post Kipchak and Aral Sea (283 km section). This is a key partner under the project providing data on the water management situation in project areas. Will play important role in supporting the achievement of Component 1 outputs. info@amudarya.org
Irrigation System Authorities (ISAs)	ISAs operate at canal levels and drainage networks in the irrigation systems, operate the pumps and deliver water to the Water Users Associations (WUAs).
Water users Associations (WUAs)	These are non-profit, non-governmental associations members consisting of farmers. The principle of the administration of WUA us based on free election. In the project's targeted areas there are two type of WUAs: (i) administrative-territorial WUAs, set up in 1999 as a result of the liquidated unprofitable shirkats (collective farms) and (ii) hydrographic WUAs, resulting from the memberships of farmers sharing the same water sources (canals/aryks) and irrigated areas.
Interstate Commission for Water Coordination (ICWC)	One of the main Interstate Institution responsible for transboundary water management. It is comprised of senior water officials from each riparian country, responsible for water allocation, monitoring, and water use, and other issues in the region. The ICWC was established as a result of the Agreement signed by the Central Asian countries in 1992 on joint management of interstate water resources. The Basin water organization "Amu Darya", the Scientific Information Center (SIC), and the ICWC Secretariat are the executing bodies of the ICWC.
International Fund for Saving Aral Sea (IFAS)	Inter-state institution, serving as a platform for dialogue to improve cooperation between the countries on the efficient use and management of water resources, and improving socio-economic and environmental situation in the Aral Sea basin
Ministry of Agriculture	The Ministry of Agriculture is the executive body responsible for the development and implementation of agricultural policy and agricultural markets. Local branches of the ministry are involved in land allocation and planning at local level.
The Council of Farmers, Dekhan Farms and Owners of Households Lands	The Council of Farmers was established in 2012 and supports the development of legislative proposals in farming agriculture, strengthening material and financial base of farmers and ensuring protection of the rights and interests of farmers, including their relationship with the state bodies, vendors and service organizations and legal courts. The Council conducts public control over reorganization and creation of farms, and allocation of lands to farmers and supports farmers consulting centers, rendering legal and economic assistance to farmers. The Council of Farmers is mandated to provide several types of financial support to farmers (2018 resolution of the President no 3680). The Council manages a National Fund "On Additional Measures to Improve the Activities of Farmers, Dekhkan Farms and Owners of Private Lands", to support innovative activities in agriculture sector, introduction of new types of agricultural products and technologies, implementation of state programmes and other projects conducive to agricultural activities in the country.
State Committee on Land Resources, Geodesy, Cartography	The State Committee on Land Resources, Geodesy, Cartography and National Cadastre (<i>Goskomzemgeodezkastr</i>) is responsible for

and National Cadastre (<i>Goskomzemgeodezkadastr</i>)	coordinating the implementation of land use and land management legislation, regulations and programmes. The committee is also responsible for coordinating the surveying, mapping and maintenance of the national land cadastre database
State Committee on Forestry	<p>The former Ministry Department of Forestry (under the Ministry of Agriculture) has been restructured and re-organized to a in depended State Committee on Forestry.</p> <p>The State Committee on Forestry is responsible for coordinating the implementation of forest and forest management legislation, regulations and programmes, realization of the priorities under forestry policies and enforcement of legislative regulations. It coordinates the activities of</p> <p>Within the State Committee on Forestry, the Forest Inventory and Design Enterprise are responsible for: forest monitoring, development of forest management guidelines, and the preparation of 10-year forest management plans.</p> <p>There are 72 forest enterprises/business units under the State Committee on Forestry. The forest enterprises are also in charge of wildlife (including hunting and fisheries activities) on state forest fund land.</p>
Local level	At the local level , the Councils of the People's Deputies (the 'local councils') and <i>khokims</i> (governors), appointed by the President, constitute the basis of the government in the regions, districts and towns. Local governments (<i>khokimiat</i>) are subdivided into regional/province level (<i>viloyats</i>), district (<i>rayons</i>) and city administrations ⁸⁴ . The local and regional authorities are responsible for land allocation and planning at local level.
Community level	Local government in Uzbekistan is further supplemented by self-governing community organizations - mahallas ⁸⁵ - in <i>auls</i> (villages) ⁸⁶ , <i>kishlaks</i> (rural settlements) and cities. The structure and functioning of these mahallas are primarily regulated by the Law on Community Self-Governments (1999). "Mahallas" enforce the execution of district authorities' orders for management, distribution and monitoring of natural resources among rural communities.

⁸⁴ Tashkent however has a special status, as its local government operates independently of the regional authority.

⁸⁵ Refers to a community of people residing in a specific territory - mahallas may vary in size from 150 to 1,500 families. In cities, mahallas are generally established by the residents of a particular residential quarter or suburb.

⁸⁶ Localities with over two thousand inhabitants which are situated in the vicinity of industrial or construction enterprises, railway stations or other important 'objects'.

Annex 24: Sustainable Land Management (SLM) measures proposed in the targeted sites

Proposed SLM measures on the targeted irrigated/non-irrigated areas in 4 districts, under Output 1.2 (to be selected according to LDN prevent-reduce-restore principle):

- Bio drainage (lowering water table and as a measure to address soil salinity): planting alfalfa, willow, fast growing poplar (*Populus euphratica*); For example, during growing season alfalfa consumes 4-20 thousand m³ water /ha (depending on grain-size distribution, thickness of sowing) and due to its high salinity resistance, it can use groundwater with total salt content up to 5g/l. Alfalfa is usually the main predecessor crop in the crop rotation. Willow and poplar consume 20-100 m³ of water (per tree) during the growing season. Trees are usually used for the plantations along inter-farm and on-farm canals. Capturing the water seepage from canals, they maintain a good ameliorative condition of the area to a considerable degree. Forest shelterbelts of 5-10 m width, of 5-10 trees, can remove groundwater from soil more than drains (one tree alone evaporates 50-90 m³/year whereas a good drain diverts 54-62 m³/year)⁸⁷.
- Decreasing soil degradation by applying organic fertilisers to enhance soil productivity and increase the level of organic matters in the soil (humus) could be considered at a rate of no less than 30 tones/ hectare.
- Cultivation of a second crop after the winter wheat is harvested, planting legumes such as mung bean (*Vigna radiata*) and bean (no later than July 5) for soil productivity restoration.
- Conserving soil moisture- through soil mulching by reducing evaporation, regulating soil temperature and stimulating increased root water uptake.
- Combination of agroforestry with no-tillage to reduce evaporation capacity and contribute to water consumption reduction for vegetative irrigation; cost-effectiveness monitoring of zero-tillage technology and traditional techniques has established that farmers' costs reduced by 164,000 soums per hectare for winter wheat cultivation. The yield of winter wheat cultivated in the traditional technology was higher (23.3 centers per 1 hectare) than the one cultivated in non-tillage technology (18.9 centers per 1 hectare). However, the profitability was higher with non-tillage technology (37.7%) than with conventional technology (20.5%) due to reducing technological operations for the cultivation
- Enrichment of farm fields and pastures in the irrigated zone with forage grasses such as *Kochia prostrata* at saline areas, and *Cynodon dactylon* and *Agropyrum fragile* at non-saline lands.
- Growing winter legumes (chickpea, soybean) in rainfed areas using direct seeding, which reduces soil degradation and salinization, increases crop diversity and enriches soil health;

Proposed SLM measures in targeted areas- Pastures: (Output 2.3)

- In Alat district of Bukhara region, by working together with Alat forestry enterprise(Section of Kirlishon), the project will support the development of **20,000 ha** pasture management plan, covering degraded pastures around Dengizkul lake, creation of pasture protective forest belts and development of a rotational grazing plan where livestock farming exist, in order to reduce pasture degradation.
- In Karakul district of Bukhara region, the project will further develop a pasture management plan covering **20,000 ha** to reduce degradation including creation of a shelter forest belt, near Khyzylkum Reserve, at the border between Karakul and Romitan districts. The project will work with Khyzylkum forestry enterprise, local authorities (khokimyats) and local communities and with Kyzylkum Reserve staff, exploring possibilities of creating an ecological corridor across the buffer area
- In Amudarya district of Karakalpakstan region, the project will support participatory development of **3,500 ha** of pasture management plans near tugai areas. The project will work with Amudarya hokhymiyat, Kipchak forestry and local communities in Untom, Moylikul and Kyzylkholi villages.
- In Moynaq district of Karakalpakstan region, the project will support the following measures: (i) Development of a pasture management plan for **31,500 ha** of desert pastures to prevent soil and wind erosion, and siltation of Akpetki system of lakes, Ashishkul, Akshoki, Orda, Soraly lakes. The envisaged SLM measures will include aerial strip

⁸⁷ Baraev, F.A., Sherov, A.G., Isabaev, K.T., Baraev, A.A., Kasymbetova, S.A. Improvement of environmental condition of irrigated lands by implementing bio-artificial drainage systems in farms [in Russian] (2007)

seeding to create large saxaul shelterbelts with small aircrafts (using hang gliders and drones) ; each strip should be 20-25 m wide, positioned as much as possible perpendicular to the prevailing wind, with strips separated at distances between 150m-300 m. (ii) The project will further work with Moynak forestry enterprise for the development of a pasture management plan for **10,000 ha** of pastures around Beleuli, Cherchuk, Almanbet and Jidali lakes, located around Saygachi refuge. The partnership supported by the project will be with Kungrad forestry enterprise, khokymiyats and local communities (iii) Development of a pastures management plan for **5,000 ha** around Sudochoye lake system (KBAs/IBAs) to support natural regeneration, avoid land degradation and prevent lakes siltation. The project will work with Moynaq forestry enterprise, khokimiyats and local communities (Karajar village).

Proposed SLM measures in targeted areas- Degraded land (Output 2.4)

In Alat district, in collaboration with Alat Forestry enterprise the project will support the following land restoration strategies:

- Restoration of **150 ha** patches of degraded land around the Dengizkul lakes systems, near Amu-Karakul canal, through planned irrigation (including provision of a water pump) and planting saxaul (5 kg/ha) and salsola (8kg/ha) on sandy soils and saxaul (1000 plant/ha) on clay and loamy soil; cultivation of soil enhancing crops with licorice and alfalfa (**50 ha**) to enhance the soil condition; creation of a fruit orchard (50 ha) and farm crops (**50 ha**). The project's partners will be Alat forestry Section Hojadaylat and the local communities of Kumkishlak, Arabhona and Okpulat villages. (ii) Restoration of **100 ha** of degraded irrigated land along the Central Collector, on Bahoriston massif, through improvement of irrigation equipment (including a new water pump) and creation of fast-growing forest species and fruit orchard and poultry farming (50 ha). The project will work together with Alat forestry Kirlishon Section and local communities.
- In Karakul district the project will support (i) restoration of **320 ha** degraded land along Amudarya river, by creating a continuous tree cover on denuded land resulting in the aggregation of forest patches, through planting silverberry, sea buckthorn and poplar trees to restore degraded land and create conditions for biodiversity restoration especially return of globally significant key species; The project will work with Karakul forestry and local communities (Kyzylravat village situated at the border with Kyzylkum Reserve) and with the Kyzylkum reserve staff, and will aim at creating ecological corridors for wildlife, to expand area of suitable habitats outside the protected areas, to improve their feed base (through planting forest shelterbelts, reseeding marginal land located within wildlife migration routes) (ii) Restoration of **123 ha** degraded irrigated land, by planting licorice and rosehip (*Rosa sp.*) plantations, unabi (*Ziziphus jujube*) and sea buckthorn (*Hiphophae rhamnoides*), which can be commercialized by the local communities and can also restore soil productivity. The project will work with Karakul forestry and local communities (together with Zamonobod village and other settlements).
- In Amudarya district, several land restoration measures are proposed: tugai restoration (assisted regeneration) through improved flooding of **200 ha** of degraded land and tugai ecosystems; creation of a poplar plantation (for biodrainage) on **35 ha** of degraded irrigated land; planting willow on **5 ha** together with the local communities and setting up a basketry local workshop with local communities; creation of liquorice plantations on **50 ha** degraded land, and a workshop for liquorice stem cutting, drying and pressing (liquorice bales). The liquorice plants will enrich and restore soil productivity and the liquorice products can be commercialized in 4-5 years; alfalfa planting on **20 ha** degraded irrigated land will enrich the nitrogen content of the soil and after the second year, the hay can be used for livestock; crop rotation and selection of less water demanding crops on **67 ha**; tree pruning on **30 ha** and setting up basketry workshop using willow and other soft wood. The project will work with Kipchak forestry and local communities around Amudarya Biosphere Reserve, in the buffer and productive zones.
- In Moynaq district, the project will support: (i) restoration of **100 ha** degraded land by planting islands of silverberry and sea buckthorn around the system of lakes Ashshikul and Ahshoki, Orda, Soral, along Kokhdarya canal. The project will work with Kazakhsdarya forest enterprise; (ii) restoration of **300 ha** of degraded irrigated land by creation of drought resistant forest strips interplanted with staple crops requiring less water, using drip-irrigation. Drought resistant species may be tested: alfalfa (*Medicago sativa*), Sudan grass (*Sorghum sp.*), Persian clover (*Trifolium resupinatum*), sunflower (*Helianthus annuus*), beetroot (*Beta vulgaris*), licorice (*Glycyrrhiza glabra*), barley (*Hordeum vulgare*). The project will work with Moynaq forestry and local communities (Chega, Kyzyljar, Shagilik villages); (iii)

restoration of **50 ha** of degraded land through creation of forest fruit plantations, in partnership with Kazakhdarya forestry enterprise and local communities in the surrounding village (Kazakhdarya); (iv) Restoration of **50 ha** of degraded land through planting fodder crops, with local communities representatives.

Proposed SLM measures in targeted areas- Tugai/Tauranga forest ecosystems: (Output 2.5)

In Alat district, the project will support development of a management plan for **2,000 ha** of tugai/turanga forest around the small lakes belonging to Dengizkul lakes system, in order to prevent forest degradation and avoid siltation of lakes due to soil erosion. The project will work together with Alat forestry, Section Hojadaylat and local communities.

- In Karakul district, the project will support the development of a forest management plan to prevent the degradation of **3,000 ha** of tugai and turanga forest along Amudarya river. Turanga thickets growing on Karakul forestry enterprise cover approximately 560 hectares. Tugai area borders a part of Kyzylkhum Reserve. The absence of natural flooding is drying out the remaining forest ecosystem, with large patches of barren land and dry-topped trees. Flooding in these areas will be one of the measures included in the management plan, and it could be implemented by digging trenches and pumping water to ensure flooding of at least 200 hectares of forest. Silverberry and sea-buckthorn should be interplanted to cover different barren land areas of approximately 100 ha and create a suitable micro-climate for valuable species, as well as alfalfa and licorice to enrich the soil (10-20 hectares). The project will work together with Karakul specialized forestry enterprise and Kyzlrvat and Gugurtli villages.
- In Amudarya district, with the project support, a management plan for **4,000 ha** of tugai and turanga area along Amudarya river will be developed, in the buffer area of the Lower Amudarya Biosphere Reserve. The project will work together with Kipchak forestry and Beruny forestry enterprise and with Lower Amudarya Biosphere Reserve management unit. In addition, the project will support engagement with local communities in Kiyik, Kupyr, Nazarkhan, Kizilkholi, Uzbekistan, Jumurtau to develop sustainable pasture management measures (approximately 2,000 hectares) to avoid pressure on tugai. The main threat is the unstable hydrological regime and lack of regular flooding of tugai prevents natural regeneration and leads to tugai habitat's fragmentation.
- In Moynaq district, the project will develop a forest management plan for **1,000 ha** of tugai and turanga, to assist with natural regeneration of turanga and tugai forests, with tamaryx, silverberry and sea buckthorn, around lakes of Akpetki system (Ashshikul and Ahshoki, Orda, Soral lakes) along Kokhdarya collector.
- The project will work with Kazakhdarya forestry and hunting enterprise. Areas situated in the lakes' proximity belong to Kazakhdarya forestry enterprise; and have no vegetation, consisting mainly of salty marshes. These areas could be sown with desert plants to create a buffer around the lakes, using aerial seeding by encapsulation methods (hang gliders). It is recommended to sow karabaraka (*Halostachys belangeriana*) mixed with saxaul 4-5 kg/hectare (karabaraka is a salt tolerant and good fodder plant, a shrub that can reach between 1-3 m).

Table below : Proposed SLM measures grouped according to different proposed measures to prevent-reduce-restore degraded land

Proposed measures to address land degradation (sustainable land management) to achieve LDN (to be re-assessed during the first year by expert mapping according to LDN prevent-reduce restore philosophy)						
District	Prevent /Avoid Land Degradation	Reduce land degradation	Restore degraded land	The project will work with:	Location of pilot site. Settlements around pilot sites	Notes
Alat		20,000 ha pasture management plan, covering degraded pastures around Dengizkul lake, creation of pasture protective forest belts and development of a rotational grazing plan where livestock farming exist, in order to reduce pasture degradation.		Alat forestry enterprise (section Kirlishan, including 10 thousand ha area of Tankodrom) and 10 thousand ha livestock farm jointly with hokimiyat and local communities	Located near Dengizkul refuge. There is no settlement around the pilot site. The nearest settlement is Kirlishan VCC, located 21 km from Dengizkul	Agricultural crops are not farmed around pilot site, lands are mostly used as pastures A System of rotational grazing will be developed to reduce pressure on pastures
Alat	Management plan for 2,000 ha of forest (tugai/tauranga) around small lake systems in order to avoid forest degradation through forest patches method			Alat forestry enterprise (section Hojadavlat) jointly with local communities	Located around system of lakes Dengizkul. There are 8 large and small fish farms on the site. The nearest Kirlishan village VCC is located 14 km from the pilot site. About 15 families live there (40 people including 17 women and 23 men). There is no school, kindergarten, club, bar or restaurant in this village. The population is	6 km from the pilot site there are farms Kirlishan, Uzbekistan and Kirtai that farm crops

					engaged in livestock farming	
Alat			Restoration of 200 ha patches of degraded land around the Dengizkul lakes systems, near Amu-Karakul canal, through planned irrigation (including provision of a water pump) and cultivation of soil enhancing crops with licorice and alfalfa (50 ha) to enhance the soil condition; creation of a fruit orchard (50 ha) and farm crops (50 ha).	The project's partners will be Alat forestry Section Hojadaylat and the local communities of Kumkishlak, Arabhona and Okpulat villages.	Located along Amu-Karakul canal. The nearest settlements are Kumkishlak, Arabhona and Okpulat, at least 500 families live in each of them. There are no industrial enterprises in these settlements, they only have school, kindergarten, and farms	The main activity of local population is livestock, silkworms and cotton farming
Alat			Restoration of 100 ha of degraded irrigated land along the Central Collector, on Bahoriston massif, through improvement of irrigation equipment (including a new water pump) and creation of fast-growing forest species and fruit orchard and poultry farming (50 ha).	The project will work together with Alat forestry Kirlishon Section and local communities.	Located along Central collector on Bahoriston massif. Nearest settlement is Jovdul, a part of Kirlishan VCC, with 700 families	Previously agricultural crops were farmed around the pilot site. There are pastures around the site.

<p>Romitan district on the border with Karakul district</p>		<p>In Karakul district of Bukhara region, the project will further develop a pasture management plan covering 20,000 ha to reduce degradation including creation of a shelter forest belt, near Khyzylkum Reserve, at the border between Karakul and Romitan districts. The project will work with Khyzylkum forestry enterprise, local authorities (khokimyats) and local communities and with Kyzylkum Reserve staff, exploring possibilities of creating an ecological corridor across the buffer areas.</p>		<p>Kyzylkum forestry enterprise jointly with hokimiyat and local communities</p>	<p>Located near Kyzylkum reserve. Kyzylravat settlement is located 5 km from the border of the reserve</p> <p>About 40 families live in the village. Village hosts a military unit with more than 50 military personnel. There is 1 school, kindergarten, club, offices of leshoz and farms. In addition, in the desert zone there is Gugurtli village with about 40 families.</p> <p>The main activity of local residents is livestock farming</p>	<p>Agricultural crops are not farmed around pilot site, lands are mostly used as pastures</p>
<p>Karakul</p>	<p>Management plan for riparian tugai/tauranga forests along Amudarya river (50 km) approx. 3,000 ha to avoid forest ecosystem degradation (with installation of</p>			<p>Karakul specialized forestry enterprise</p>	<p>Located on the area bordering with Turkmenistan. Tugai/tauranga zone borders on Kyzylkum reserve. To the nearest border of Settlement Kyzylravat - 5 km, to the farthest - 50 km.</p>	<p>Agricultural crops are not farmed around pilot site</p>

	mobile wagon shack for shift operation)				Shift operation could be set up	
Karakul			Restoration of 320 ha degraded land along Amudarya river, by creating a continuous tree cover on denuded land	The project will work with Karakul forestry and local communities and with the Kyzylkum reserve staff, and will aim at creating ecological corridors for wildlife, to expand area of suitable habitats outside the protected areas, to improve their feed base	Located on the area bordering with Turkmenistan. Tugai zone borders on Kyzylkum reserve. To the nearest border of Settlement Kyzyl-ravat - 5 km, to the farthest - 50 km. Shift operation could be set up	Agricultural crops are not farmed around pilot site
Karakul			Restoration of 123 ha degraded irrigated land, by planting licorice and rosehip (<i>Rosa sp.</i>) plantations, unabi (<i>Ziziphus jujube</i>) and sea buckthorn (<i>Hiphophae rhamnoides</i>), which can be commercialized by the local communities and can also restore soil productivity.	The project will work with Karakul forestry and local communities (together with Zamonobod village and other settlements).	Located on the area bordering with Turkmenistan. Tugai zone borders on Kyzylkum reserve. To the nearest border of Settlement Kyzyl-ravat - 5 km, to the farthest - 50 km. Shift operation could be set up More than 10 families live in Zamonobod village, there are also other settlements in the vicinity. Lake is	Agricultural crops are not farmed in the tugai zone of Amudarya, but Zamonobod village has agricultural farming

					located about 10 km away	
Amudarya	In Amudarya district of Karakalpakstan region, the project will support participatory development of 3,500 ha of pasture management to avoid degradation near tugai/tauranga areas			Amudarya hokimiyat, Village counsels of citizens and Kipchak forestry enterprise	<p>Located on the border with Lower Amudarya biosphere reserve.</p> <p>1st site. Untom and Moylikul villages on the territory of Nazarhan VCC, about 150 families residing in areas adjacent to tugai forestry. Livestock grazes on desert pastures with area of 2834 ha near tugai zone, of which 600 ha are pasture land</p> <p>2nd site Kizilcholi village on the territory of Beshtom VCC, about 70 families residing near tugai zone. Local residents' livestock grazes on desert pastures with an area of 700 ha adjacent to tugai zone</p>	Local residents farm various crops around pilot site
Amudarya	Management plan for 4,000 ha of riparian tugai forests along Amudarya river, with identified planned economic			Kipchak forestry enterprise	Located around Lower Amudarya Biosphere Reserve. Communities of Kiyik Kupyr, Nazarkhan, Kizilcholi,	Local residents farm various crops around pilot site

	activities and extent of agricultural practices in adjacent areas, to avoid degradation of forest ecosystem				Uzbekistan and Jumurtau are located nearby	
Amudarya			Improved flooding in tugai zone with the purpose of restoration of degraded land and assisted natural regeneration of forest on an area of 200 ha	Kipchak forestry enterprise jointly with local communities	Located around Lower Amudarya biosphere reserve. Local communities reside near tugai forest zone	Local residents farm various crops around pilot site
Amudarya			Creation of poplar tree plantations on an area of 35 ha on to restore degraded irrigated land	Kipchak forestry enterprise jointly with local communities	Located around Lower Amudarya biosphere reserve. There are several settlements near tugai forest zone	Local residents farm various crops around pilot site
Amudarya			Creation of plantations of basket-willow on an area of 5 ha to restore degraded land, with establishment of basketry workshop	Kipchak forestry enterprise jointly with local residents	Located around Lower Amudarya biosphere reserve. There are several settlements near tugai forest zone	Local residents farm various crops around pilot site
Amudarya			Establishment of a workshop for processing the waste of sanitary wood cutting (tree pruning) that is implemented annually on 30 ha	Kipchak forestry enterprise jointly with local residents	Located around Lower Amudarya biosphere reserve. There are several settlements near tugai forest zone	

Amudarya			Creation of licorice plantations on an area of 50 ha and to restore degraded land, establishment of a workshop for licorice stem cutting, drying and pressing in bales	Kipchak forestry enterprise jointly with local communities	Located around Lower Amudarya biosphere reserve. There are several settlements near tugai forest zone	Local residents farm various crops around pilot site
Amudarya			Alfalfa planting in order to enrich the soil with nitrogen on area of 20 ha (to enrich soil after the second year)	Kipchak forestry enterprise jointly with local communities	Located around Lower Amudarya biosphere reserve. There are several settlements near tugai forest zone	Local residents farm various crops around pilot site
Amudarya			Planting of agricultural crops requiring less water on an area of 67 ha	Kipchak forestry enterprise jointly with local communities	Located around Lower Amudarya biosphere reserve. There are several settlements near tugai forest zone	Local residents farm various crops around pilot site
Muynak (Akpetki)	Development of a pasture management plan for 31,500 ha of desert pastures to prevent soil and wind erosion, and siltation of Akpetki system of lakes, Ashishkul, Akshoki, Orda, Soraly lakes the envisaged SLM measures will include aerial strip seeding to create large saxaul shelterbelts			Muynak forestry enterprise with involvement of other forestry enterprises	Surrounding area is a dried-out seabed, there are no settlements around, poachers are likely	There are sands and solonchaks around pilot site

Kungrad		Pasture management plan for 10,000 ha of pastures around Beleuli, Cherchuk, Almanbet and Jidali lakes, located around Saygachi refuge to reduce degradation. The partnership supported by the project will be with Kungrad forestry enterprise, khokymiyats and local communities		Kungrad forestry enterprise jointly with local communities	Located around Saygachiy refuge. The areas of Beleuli, Cherchuk, Almanbet and Jidli refuges are in close proximity to the settlements. The distance between the Beleuli area and the Bostan community, which is located outside the village of Karakalpakstan in Kungrad district, is 40 km	There are pastures around pilot site
Muynak	Development of a pastures management plan for 5,000 ha around Sudochye lake system (KBAs/IBAs) to support natural regeneration, avoid pastureland degradation and prevent lakes siltation. The project will work with Moynaq forestry enterprise, khokimiyats and local communities (Karajar village).			Muynak forestry enterprise jointly with khokimiyat	Nearest to Sudochye lake system settlement is Karajar, located at a distance of 10 km. In the village there are 37 households with 157 residents	There are pastures around pilot site. Main activity is livestock farming and hunting
Muynak	Management plan for 1,000 ha of forests adjacent to Ashshikkul, Ahshoki, Orda, Soraly and other lakes to avoid degradation and			Kazhdarya forestry and hunting enterprise	The area is a dried-out seabed, there are no settlements around	Tugai ecosystem is emerging around the lakes

	support natural forest regeneration					There are sands and solonchaks around pilot site
Muynak			Planting of silver berry and buckthorn on an area of 100 ha around the system of lakes to restore degraded land around lakes Ashshikul, Ashoki, Orda and Sorali	Kazahdarya forestry and hunting enterprise	The area is a dried out seabed, there are no settlements around	Tugai ecosystem is emerging around the lakes
Muynak			Restoration of 150 ha of degraded land for creation of plantations of drought-tolerant forest fruit plants (on an area of 100 ha and farming of agricultural crops requiring little water on an area of 50 ha)	Muynak forestry enterprise jointly with local communities	Near site there are settlements of Chega, Shagirlik and Kyzyljar, about 100 families reside in Chega village	There are pastures around pilot site, agricultural crops are farmed as well
Muynak			Restoration of 50 ha of degraded land for creation of fruit forest plantations	Kazahdarya forestry and hunting enterprise jointly with local communities	Near site there is a settlement of Kazakdarya with about 50 families, has a fish farm, a school, and two farms	There are pastures around pilot site. Main activity of local residents is livestock farming
Muynak			Restoration of 50 ha of degraded land to farm fodder crops	Jenis Erkinlik farm jointly with local communities	Near site there is a settlement of Kazakdarya with about 50 families, The site includes a	There are pastures around pilot site. Main activity of local residents is

					fish farm, a school, and two farm areas.	livestock farming
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Annex 25: List of Baseline Programmes and Projects

A key baseline initiative is the overall body of work and regional efforts for restoration of the Aral Sea, coordinated through the **International Fund for saving the Aral Sea (IFAS)**. IFAS contributes to the sustainability of the Aral Sea basin through the Aral Sea Basin Programmes that serve an umbrella for the relevant national programmes and projects and the donor funding. The project is aligned with the priorities under the current Aral Sea Basin Programme (ASBP-4), chiefly among them: (i) modernization and reconstruction of existing irrigation water facilities; (ii) improving the reclamation of irrigated lands in Amudarya basin; (iii) restoration and development of small reservoirs in Amudarya basin; (iv) implementation of best practices for adjustments of crop irrigation regimes; (v) conservation and restoration of wetlands ecosystems in Amudarya basin; (vi) afforestation of dried Aral Sea bed. The project interventions will be implemented in coordination with the activities of IFAS, under the auspices of which the **Aral Sea Basin Program (ASBP-4)** is being implemented. The potential synergies consist in systematic afforestation in the Aral Sea region and on the dried-up Aral seabed, creation of fast-growing tree plantations, development of nurseries.

Another baseline initiative is the **State Program on development of the Aral Sea region for 2017-2021 which** includes concrete activities related to afforestation of the dried bottom of the Aral Sea; construction/ reconstruction of water collectors, pumping stations, improvement of water resources management in South Karakalpakstan through construction/reconstruction canals, creation of tourism infrastructure. The Program provides for implementation of 67 projects by attracting and utilizing over 8.4 trillion soums (approx. \$ 822 million) from various financing sources, including budgetary allocations, trust funds, grant funds and loans from major International Financing Institutions (IFIs). The programme also provides for implementation of two projects, one of which covers afforestation of the dried up Aral seabed, and the second is aimed at establishing desert plant seed-production entities in the Aral Sea region - the combined planned budget of these projects is about \$7 million of grant funding.

A key baseline for Karakalpakstan region is the **“Comprehensive program for development of Moynak district of the Republic of Karakalpakstan for 2019-2021”**, approved by the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 37, of January 16, 2019; includes 75 projects including reforestation, to be implemented during 2019-2021 totaling 26.974 trillion Uzbek soums.

The **UN Multi-Partner Human Security Trust Fund for the Aral Sea Region (MPHSTF) in Uzbekistan (November 2018 – December 2023)** covers Karakalpakstan and Khorezm regions of Uzbekistan and has the Human Security Concept as its programmatic focus. The 2019 funding of approximately \$ 3.1 million⁸⁸ included projects on afforestation as an aspect of environmental security, and social security aspects associated with the access to basic utilities, social protection, water, sanitation, and education.

In addition to the baseline described in the PIF, there are several other programmes and government’s initiatives and other projects, on which the project will build:

The **Ministry of Water Resources** current investment programmes “ Rehabilitation of main irrigation canals of Tashsakin system in Khorezm region “ co- funded by the Islamic Development Bank in amount of \$ 145,000,000; and the “ Improving water resources in Southern Karakalpakstan” co-funded by the World Bank in amount of \$ 376,700,000. In addition, the Ministry of Water Resources planned investments in the rehabilitation of the irrigation system in the project targeted areas during 2021-2023 is estimated at approximately \$90,000,000.

The **National Water Management Project (second phase 2020-2023)** in Uzbekistan aims to support the Ministry of Water resources in managing the water resources by strengthening its operational capacity at local and central levels, improving the legal framework of the water sector and reducing the risks of natural disaster. It is implemented by IFAS Agency in close cooperation with the Ministry of Water Resources. The second phase will be implemented during 2020-2023, funded by the Swiss government, with a total budget of 4.6 million Swiss francs (approx. \$ 6.9 million). Both projects will target institutional and regulatory water framework. The GEF project will be incremental by working on regulatory amendments to guarantee the implementation of the requirements for the minimum water levels of the lakes, wetland and riparian areas in lower Amudarya reaches.

IFAS executed **World Bank project “ Climate Adaptation and Mitigation Programme for Aral Sea Basin”** 2016-2021, is focusing on common problems and challenges related to climate change in Central Asian countries (the total budget for Uzbekistan is \$ 13 million). The project works with countries to improve access to climate change data and data sharing,

⁸⁸ <http://mptf.undp.org/factsheet/fund/ARL00>

climate investment and capacity building. Complementarities between the GEF project, looking at an integrated water-land management to increase resilience and the focus of IFAS project- on climate adaptation, are strong assets for both projects.

IFAS executed project **“Creation of small local reservoirs in Amudarya delta – Operational phase 2020-2025”** is aiming at the restoration of the lakes and water bodies in Amudarya delta through engineering works. The project provides for the creation of a complex engineering structures in Amudarya delta and artificially flooded landscape ecosystems in adjacent territories of the dried Aral seabed with the view to restoring the natural ecological regime throughout the whole South Aral Sea region, targeting Mezhdurechensk, Rybachye, Muynak and Dzhitirbas reservoirs, Mashankul, Ilenkul, Makpalkol and Dumalak lakes. The project is implemented in several stages. The current operational phase will be implemented during 2020-2025. The estimated total amount invested during 2018-2019 is 361.9 billion Uzbek soums (approx.\$35.5 million). In 2020, the reconstruction of Moynaq Canal (2020) is being implemented with the support of the State budget and Aral Sea Trust Fund (\$8.3 million). The GEF project will be incremental to the current Government’ efforts and will provide the necessary interinstitutional coordination, technical support and integrated water management frameworks and legal amendments that will lead to a guaranteed ecological flow to maintain these lakes and reservoirs and wetlands ecosystems.

Asian Development Bank project **“Uzbekistan: Climate Adaptive Water Resources management in the Aral Sea Basin Sector Project”** – this is a proposed \$ 150 million loan investments to deliver adaptive solutions by modernizing the irrigation and drainage system in selected subprojects in Amyudarya and Zarafshan River Basins in Uzbekistan. The opportunities for synergies will be explored, as both projects have planned activities in Amudarya river basin and there will be opportunities to collaborate on good practices in irrigated areas and support to improving water sector legislation.

Korea International Cooperation Agency (KOICA) project **“ Advanced ICT based Integrated Water Resources Management IWRM system in the Republic of Uzbekistan-** this is an initiative under preparation at the time of this GEF project submission. The total budget envisaged is US\$ 10 million, implementation period 2022-2025. The main project objective is to support the Ministry of Water Resources and provide ICT tools and advanced SMART technology to monitor the water releases to Amudarya delta water ecosystems. This is a continuation phase of the KOICA initiatives implemented during 2016-2020 to advance the automation of control processes at the level of hydrotechnical (hydraulic) facilities/structures, in terms of water monitoring and accounting, development of on-line information monitoring system of the water flow rates, volumes at water facilities. The synergy opportunities between the two projects are clearly there , given the GEF contribution under Component 1, to the assessments of the existing hydrotechnical facilities and recommendations for modernisation and optimisation. UNDP will explore possibilities of cooperation and co-financing possibly during the inception phase.

Adaptation Fund (AF) **“Developing climate resilience of farming communities in the drought prone parts of Uzbekistan”** (2014-2021) with a total budget of \$4,990,878 (AF) and TRAC (\$200,000) is aiming at developing climate resilience of farming and pastoral communities and focuses on Karakalpakstan region in particular. The project is working on improving the institutional capacities for drought risk management and early warning system; promoting climate resilient agricultural and pastoral systems; promoting a landscape level approach to adaptation and improved access to knowledge, increased awareness and understanding on climate adaptation. The project will build on the lessons learned and good experience generated by the AF project.

Green Climate Fund proposal **“ Enhancing Multi-Hazard Early Warning System to Increase resilience of Uzbekistan Communities to Climate Change Induced Hazards”** to be implemented by UNDP, with a total budget of nearly 10 million is aiming at improving hydro-meteorological observation network as well as building the capacity to model hazards, combined with information on vulnerability and exposure and analyse risks as part of an integrated monitoring forecasting. The GEF project will coordinate with the GCF project and will explore ways of sharing knowledge and information on vulnerability to climate change induced risks.

The project proposal **“ Supporting an inclusive transition to a green economy in the Agri-food Sector and development of a “climate smart” Uzbek Agriculture Knowledge and Innovation System “ UAKIS”** submitted for EU funding, to be implemented by UNDP, with a budget of 5 million EUR aims at promoting green investments across agri-food value chain through policy interventions and innovative services for climate smart investment in agriculture. The GEF project has a focus on promoting innovative land restoration measures and will coordinate with the EU project with the aim of exchanging knowledge and information on innovative business models in agriculture for a sustainable agri-food sector, contributing to promoting post COVID-19 green transformational recovery pathways.

Ongoing and planned agroforestry and afforestation works in the targeted areas: Moynaq and Kungrad State Forestry Enterprises in the Republic of Karakalpakstan, will implement works to consolidate moving sands with the creation of protective forest stands on an area of 20 thousand hectares on the drained seabed of the Aral Sea through a grant worth 23.4 billion soums (approx. \$ 2,248,211) during 2020-2022, on a contractual basis with the Executive Committee of the Nukus branch of the International Fund for Saving the Aral Sea (IFAS). In addition, with the support from the State budget, own funds and loan from domestic banks and international financial institutions in the amount of 64.2 billion soums (approx. \$ 6,000,000) - Kipchak and Moynaq forestry enterprises are planning to restore areas of degraded land and create plantations of fast-growing tree species, fruit forest crops and crops requiring little moisture, during the period of 2021-2024. The GEF project will be incremental in that it will provide technical expertise to design demonstrative LDN compatible SLM practices that will improve the soil condition in irrigated and non-irrigated land.

State Fund **“On Additional Measures to Improve the Activities of Farmers, Dekhkan Farms and Owners of Private Lands”** based on the resolution of the President of the Republic of Uzbekistan April 26, 2018 No. PP-3680. The Fund is managed by the Council of Farmers. The Fund will spend \$38 million worth soft loans disbursed through three main banks: Microcredit Bank, Agro Bank and Halbank, in the form of soft loans (15% interest rate) supporting innovative activities in agriculture sector, introduction of new types of agricultural products and technologies, implementation of state programmes and other projects conducive to agricultural activities in the country. The Project will partner with the Council of Farmers in order to complement the Fund and mobilize investments for the implementation of SLM measures.

This GEF/UNDP Aral Sea project will coordinate and exchange knowledge and scientific research findings with the GEF/UNDP International Waters Project **“Strengthening the Resilience of Central Asian Countries by Enabling Regional Cooperation to Assess High Altitude Glacio-nival Systems to Develop Integrated Methods for Sustainable Development and Adaptation to Climate Change”** (GEF ID 10077). The opportunities for knowledge exchange will be used by both projects to strengthen the knowledge base for the achievement of results. The UNDP/GEF Aral Sea project-born research findings will contribute to the GEF/UNDP International Waters project specific focus on assessing the water flow of Amu Darya River especially considering the climate change water shortage predictions. Uzbekistan is one of five countries part-taking in this regional project that will promote and facilitate the establishment/strengthening of national and regional glacier centers and with an eye towards continuously assessing current and future water flow in key rivers, including the Amu Darya, Syr Darya and the Illi River. Both projects will involve IFAS organization, which will further support the coordination. The GEF/UNDP International Waters regional project is fully coordinated with IFAS and will deliver national action plans informed by inter-ministerial dialogues and knowledge and data exchanges and may provide key building blocks for other planned/ongoing projects specific to increasing climate change adaptation and informing management practices.

Annex 26: Soil Organic Carbon and Vegetation Cover for Karakalpakstan

Table: Soil organic carbon and vegetation cover for Karakalpakstan region (Source State Forestry 2020)

No.	The indicator	Change by year:				
		2010	2015	2020	2025 expected	2030 expected
In the Republic of Karakalpakstan						
1	Soil organic carbon, in tons.	4 597 599	5,048,760	8 809 113	14,450,000	19.8 million
	On 1 ha	4.95	5.03	7.97	8.5	9.0
2	Vegetation cover, in ha	927 985	1 004 000	1 105 339	1,700,000	2,200,000
In the Amu Darya district						
1	Soil organic carbon, in tons.		60 647	75 900	90,000	114,000
	On 1 ha		19,4	22.6	25.0	30,0
2	Vegetation cover, in ha		3124	3348	3600	3800
In Muynak district						
1	Soil organic carbon, in tons.		332 091	633 311	1,700,000	3,000,000
	On 1 ha		1,2	1,6	1.7	2.0
2	Vegetation cover, in ha	228 856	297,800	390 456	1,000,000	1,500,000

Annex 27: On-granting provisions aligned with UNDP Rules for Low Value Grants

On-Granting Provisions Applicable to the Implementing Partner

Whereas the Implementing Partner (“IP”) has been selected by UNDP and the Government to undertake grant-making activities under the Agreement in accordance with the Project Document (Annex A), the IP agrees to be bound by the following additional provisions:

1. Grant Award Process

1.1 The IP shall be fully accountable for the completion of all grant making activities in accordance with its financial regulations, rules and policies, to the extent that they are consistent with UNDP’s grant policies and Financial Regulations and Rules. If they are not consistent, UNDP’s grant policies and Financial Regulations and Rules must be followed.

1.2 The IP shall conduct an assessment of grant recipient proposal(s) against set selection criteria established in the Project Document or in the call for proposals and shall submit eligible grant proposal(s) to the Project Board or designated grant selection committee for consideration and final selection.

1.3 The IP shall ensure that:

- a. the grant award process is organized in a fully transparent manner that guarantees impartiality and equal treatment to all applicants;
- b. all stages of the grant award process are formally documented through standardized checklists and forms;
- c. grants are awarded in accordance with formal rules of procedure, including adequate due diligence policies and processes;
- d. the evaluation process is based solely on the established criteria for eligibility, selection and exclusion as indicated in the call for proposals;
- e. the grant recipient is duly organized and an in good standing in its state/country of organization, as well as the eligibility of activities to be carried out with the grant award;
- f. all applicants are notified in writing of the grant award outcome;
- g. the grant award decision is made public within a reasonable timeframe following its issuance;
- h. grant funds are channeled transparently and effectively to grant recipients;
- i. no grant is awarded retroactively for activities already started or completed at the time of the application; and
- j. procedures are in place (and set forth in any agreements the IP enters into with grant recipients pursuant to this Agreement) to:
 - i. recover grant funds unduly paid, and/or to prevent and address irregularities and fraud by the grant recipient; and
 - ii. suspend, reduce or terminate the grant if the grant recipient fails to comply with its obligations.

1.4 Funding provided by the IP to any individual grant recipient shall not exceed \$150,000 per individual grant and \$300,000 on a cumulative basis within the same programme period.

2. Managing and Monitoring Performance of Grant Recipient(s)

2.1 The IP shall supervise and monitor the grant recipient’s activities and its achievement of specified results pursuant to the grant proposal selected by the Project Board or designated grant selection committee, including the schedules set forth therein.

2.2 The IP shall measure the grant recipient’s performance based on results achieved against agreed performance targets in the grant agreement. Performance shall be monitored and assessed through the progress narrative and financial reports specified in Section 3 below.

2.3 The IP shall ensure that each deliverable for which a grant recipient is responsible for achieving has an effective performance target against which the grant recipient must report periodically and which the IP will monitor through regular reporting, at least on an annual basis.

2.4 UNDP may, during the term of the Agreement, undertake various independent assurance measures (such as spot checks or audits) regarding the IP's activities that are the subject of this Agreement, including monitoring and oversight, as well as independent assurance measures of the Responsible Party (where applicable) and grant recipients' programmatic and financial activities.

3. Reporting and Audit

3.1 The IP shall have in place its own systems to assess and monitor the grant recipient's activities and use of grant funds, including reporting and audit requirements.

3.2 The IP shall ensure the timeliness and accuracy of the grant recipient's reporting in relation to the grant and shall be responsible for the management of the grant recipient's audits. The IP shall determine the frequency of audits of grant recipient(s), evaluate audit quality, and monitor audit findings and any corrective measures to ensure resolution. Notwithstanding the above, UNDP shall have the right to audit or review the IP's and the grant recipient's related books and records as it may require.

3.3 The IP shall consolidate the reporting from grant recipient(s) and submit **annual financial and narrative progress reports** to UNDP no later than 30 days after the end of the year. In the event that the IP engages a Responsible Party to undertake its grant-making obligations and responsibilities (as further described in Section 5 below), the IP shall cause the RP to consolidate the **annual financial and narrative progress reports** from grant recipient(s) and submit the aforementioned to the IP no later than 30 days after the end of the year. The IP will in turn review and submit the consolidated reports to UNDP no later than 45 days after the end of each year.

3.4 The IP shall provide progress reports ("Performance Reports") including financial and narrative information, to UNDP at least 30 days before the expected release of the next tranche or at least annually within 30 days after the end of each year until the activities have been completed. In the event disbursement of funds from UNDP to the IP is to be made quarterly, Performance Reports should be submitted to UNDP on a quarterly basis. The Performance Reports should include a dated certification by the IP's representative with institutional responsibility for financial reporting.

3.5 The IP shall ensure that the grant recipient(s) are audited in accordance with the terms of the relevant agreements. Upon request, the IP shall furnish or cause to be furnished to UNDP a copy of audit reports of the grant recipient(s).

4. Responsibility of the IP

4.1 The IP shall be solely liable for claims by third parties arising from the grant recipient's acts and/or omissions in the course of performing activities under the agreement entered into with the IP pursuant to this Agreement. UNDP shall assume no responsibility for the actions of grant recipients and shall in no way be held liable for third party claims arising therefrom.

5. Engagement of a Responsible Party to Undertake the IP's Grant-Making Responsibilities and Obligations

In the event that the IP engages a Responsible Party ("RP") to undertake its grant-making responsibilities, the IP agrees to the following additional provisions:

5.1 In selecting an RP to undertake the grant-making activities, the IP shall use the same capacity assessment process and due diligence standards applied by UNDP to assess the IP's financial and grant management skills prior to signing this Agreement.⁸⁹ The IP shall select the RP in consultation with the Project Board, as such term is defined in the Project Document, and which includes UNDP and the IP.

5.2 The IP shall sign an agreement with the RP, the terms of which shall be subject to, and construed in a manner that is fully in accordance with, all of the provisions of this Agreement. The IP shall remain responsible for the acts and omissions of the RP in relation to the on-granting activities as if they were the acts and omissions of the IP.

⁸⁹ The UNDP Partner's Capacity Assessment tool is available here - [Partner Capacity Assessment](#).

5.3 The IP shall ensure that all provisions, commitments and performance standards that apply to the IP in Paragraphs 1 – 3 above shall apply to the RP unless otherwise agreed by UNDP.

5.4 The IP shall ensure that each responsibility contracted to the RP has an effective performance indicator against which the RP must report periodically and which the IP will monitor through regular reporting and spot-checking, at least on an annual basis.

5.5 Funding provided by the RP to any individual grant recipient shall not exceed \$60,000 per individual grant and \$120,000 on a cumulative basis within the same programme period.

5.6 The disbursement of grant-making funds from UNDP to the IP shall be made quarterly and in arrears upon submission to and acceptance by UNDP of the quarterly narrative and financial reports provided in Paragraph 3.4 above.

5.7 Payments from the IP to the RP must be made as Performance-Based Payments and contingent solely upon or subject to the achievement of specific results. The RP shall self-finance all or a significant portion of the grant funds necessary to achieve the required measurable results until the pre-agreed performance measures are achieved by the RP and the grant recipients, as measured and approved by UNDP.

5.8 The IP shall ensure that the RP is audited in accordance with the terms of the relevant agreements. Upon request, the IP shall furnish or cause to be furnished to UNDP a copy of audit reports of the RP.

5.9 Any attempted or purported assignment, delegation or other transfer of obligations of the IP set forth in the above on-granting Provisions shall be void and have no effect, except with the prior written consent of UNDP.

Annex 28: LDN Checklist

Note: The Project follows PIF design, which has been based on the **LDN Checklist developed by UNCCD** (<https://www.thegef.org/documents/checklist-land-degradation-neutrality-transformative-projects-and-programmes-draft>). Summary of project's adherence to the checklist:

Criterion A: Fundamental LDN principles:

- Use landscape approach: Yes. Pls. refer to description of the landscape and maps (*Annex 22*)
- Promote no-net loss: The project's idea is to optimize water use and promote models of irrigated land, pasture and forest use so that there is no net loss of the organic layer and vegetation. Integrated land use plans under Component 2 will include activities aligned with the no-net-loss target for the target landscape.
- Avoid-reduce-reverse hierarchy. The project stems from integrated planning (Output 2.1 and Output 2.2.) which will define areas where productivity loss is going to be avoided, as well as areas that need mitigation or restoration. Concrete investment in restoration is important part of Component 2.
- Contribute to sub-national targets. Under Component 2, the project reviews progress and sets a sub-national LDN target for Karakalpakstan and implements key activities to trigger its achievement.
- Be site/country-tailored. The project has been fully tailored to the national and landscape context.
- Include LDN monitoring system: will be reviewed as part of LDN target identification for Karakalpakstan.
- Gender considerations and stakeholder engagement: Addressed, please see *Annex 16*.

Criterion B. Deliver multiple benefits.

- link to multiple SDGs, focal area benefits and sustainable livelihoods. This is the essence of the project, its rational, objective and design are fully in line with the multiple-benefits philosophy.
- Provide economic incentives to local actors: The project incentivizes local actors away from destructive behavior through engaging them in alternative economic activities, as well as biodiversity-friendly livelihoods around protected areas.
- Base land decisions on the "assessment" approach. The integrated and multi-stakeholder nature of land use planning is envisaged as part of water use and land use planning in Components 1 and 2.

Criterion C. Promotion of inclusive governance.

- safeguard land rights of local users. The idea behind the integrated land use planning in Component 2 is about ensuring that the rights of land users are respected while enabling them to derive maximum long-term benefits from use of ecosystem products and services. UNDP has a Social and Environmental Safeguard Procedure (SESP) which screens projects (including for this criterion) and does not allow projects that do not comply.
- ensure prior informed consent; avoid forced displacement; put in place grievance redress mechanism. Addressed through UNDP SESP protocol (*Please see Annex 6*).
- define gender responsive engagement. Addressed, as discussed in the corresponding subsection.

Criterion D. Promotion of scaling out.

- Employ science-based approaches and local knowledge. The project is going to be only based on proper science and consideration of established good practices in development of all of its outputs.
- Apply innovation. Addressed, please refer to the Innovation sub-section.
- Capture and disseminate knowledge. Knowledge capture, dissemination and practical use is covered under Component 4 and within the Knowledge Management Plan (*Annex 17*).

Criterion E. Enhance national ownership and capacities.

- employ awareness raising, public campaigns, education and capacity building. This is part of Component 4.
- identify and obtain co-financing. This is addressed as part of a GEF standard for ensuring co-financing.
- ensure sustainability. Addressed, as per sustainability sub-section.

Criterion F. Promoting innovative financing.

- include/prepare for a component that leverages private sector mobilization. The project does this, within the limitations of the concrete country, as further discussed under Output 3.2.3.
- foster income generation for communities. The project creates alternative income generation through improved pasture management, innovative land restoration technologies, saxaul, tugai and turanga forest management.

Annex 29: Correspondence with the GEF Secretariat on the procurement of vehicles

An initial correspondence with the GEF Secretariat on the matter of vehicle procurement for the new PAs was initiated at the beginning of June 2020 at the request of PPG Team. Co-financing for vehicle maintenance related costs is secured.

The preliminary correspondence with the GEF Secretariat is reflected below:

From: Ulrich Apel <uapel@thegef.org>
Sent: 02 June 2020 21:04
To: Maxim Vergeichik <maxim.vergeichik@undp.org>
Subject: RE: question from Uzbekistan

Dear Maxim,

Thank you. Please convey the following to the team for consideration:

While according to current GEF project cycle guidelines the procurement of motorized vehicles is expected to be covered by co-financing, exceptions can be discussed based on adequate justification for the need of motorized vehicles in specific contexts. The context described below provides the basis for such a discussion that we can engage in at the time of CEO endorsement. Efforts should be made to at least cover parts of the costs for the needed equipment and its maintenance by co-financing.

Best,
Ulrich

From: Maxim Vergeichik <maxim.vergeichik@undp.org>
Sent: Tuesday, June 2, 2020 2:24 PM
To: Ulrich Apel <uapel@thegef.org>
Subject: question from Uzbekistan

[External]
Dear Ulrich,

This email relates to an issue raised by our Uzbek counterparts while developing the full-size proposal on Aral Sea (PIF approved last fall, PPG ongoing).

I am forwarding to you the communication as I received it, and I would be grateful for your feedback which I will pass on to the team:

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We seek GEF advice on a possible waiver regarding the ban on vehicle procurement under GEF funded projects. The reasons are 1) the project intends to establish new PAs, and the sites are extremely large and 2) the PAs are underfunded, and the government will not be able to invest in vehicles for PAs.

The project will establish 5 new protected areas with a total area of 3 094 600 ha: the Southern Ustyurt National Nature park (1 400 000 ha), the National Natural park - Central Kyzylkum Biosphere reserve (1 000 000 ha), Sudochoye lakes system Reserve (84 700 ha) (on the basis of the existing Sudochoye reserve area of 50 000 ha), Akdarya-Kazakdarya Mezdurechye refuge (22 200 ha) and Akpetki refuge (587 700 ha).

Two new PAs will cover more than 1 mil. ha each : The Southern Ustyurt National Nature park (1 400 000 ha), the National Natural park - Central Kyzylkum Biosphere reserve (1 000 000 ha).

Setting up the new protected areas and providing the minimum management infrastructure would be very difficult in the absence of at least one vehicle (for each of the two largest PAs) to ensure transport to/from the location and for monitoring purposes.

The following expenses related to activities of protected areas are covered by public funds: salaries of employees of protected areas, social payments, travel expenses within the country, utility bills, biotechnical measures, consumables, maintenance of equipment and vehicles, fuel and lubricants, information and communication services.

Government funds practically do not cover the replacement of aging infrastructure, equipment and vehicles in any of the protected areas. It is likely that, given the available budget resources, state allocations will not increase in med-term and will not cover the existing gaps in PAs financing.

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Looking forward to hearing from you

With best wishes

Maxim

Annex 30: Environmental and Social Framework (ESMF)