United Nations Development Programme

Project Document for projects financed by the various GEF Trust Funds

PROJECT TITLE: CONSERVATION AND SUSTAINABLE MANAGEMENT OF LAND RESOURCES AND HIGH NATURE VALUE ECOSYSTEMS IN THE ARAL SEA BASIN FOR MULTIPLE BENEFITS		
Country: Turkmenistan	**Implementing Partner (GEF Executing Entity):** Ministry of Agriculture and Environment Protection	**Execution Modality:** Assisted NIM
Contributing Outcome (UNDAF): "By 2025, there is effective design and implementation of disaster risk reduction and climate adaptation and mitigation measures, enabling a more rational use of resources, increased resilience and a green economy transition"		
UNDP Social and Environmental Screening Category: Moderate	**UNDP Gender Marker:** *2*	
Atlas Award ID: 00128715	**Atlas Project/Output ID:** 00122633	
UNDP-GEF PIMS ID number: 6463	**GEF Project ID number:** 10352	
LPAC meeting date: December 17, 2021		
Latest possible date to submit to GEF: *June 19, 2021*		
Latest possible CEO endorsement date: *December 19, 2021*		
Project duration in months: *60 months*		
Planned start date: *March 1, 2022*	**Planned end date:** *February 28, 2027*	
Expected date of Mid-Term Review: *September 30, 2024*	**Expected date of Terminal evaluation:** *November 30, 2026*	
Brief project description: The objective of the project is to promote land degradation neutrality, restore and improve the use of land and water resources in Turkmenistan's Amudarya watershed to enhance the sustainability and resilience of livelihoods and globally significant ecosystems. This will be achieved through a multifocal strategy, that includes three interrelated outcomes that will support the government's efforts to prioritize policies and technical capacities to address desertification and biodiversity loss and deliver multiple Global Environmental Benefits (GEBs). The GEF investment will promote non-depleting farming and at the same time effective conservation of critical ecosystem services, through a *no-net-loss* approach to the land-based natural capital, within the context of supporting sustainable livelihoods for local resource users. The expected results are: Stabilized ecosystem services on 746,000 ha of production landscape. Non-depleted soil productivity and effective water use management on 100,000 ha of irrigated arable land. Crops resilience to salinization on 10,000 ha. Restored degraded arable and forest land on 60,000 ha. Strengthened effectiveness of the PAs and secured biodiversity status on 1,077,554 ha of PAs in the Amudarya landscape, including new		

areas of approximately 60,000 ha of endangered KBAs/IBAs proposed to be designated as Sanctuaries. Increased protection of KBAs/IBAs will translate into stable population of rare bird species, such as the Saker falcon (*Falco cherrug*), Egyptian vulture (*Neophron percnopterus*), Great grebe (*Podiceps cristatus*), Dalmatian Pelican *(Pelecanus crispus),* Great White Pelican *(Pelecanus onocrotalus),* Great Cormorant *(Phalacrocorax carbo), Grey heron (Ardea cinerea), Purple heron (Ardea purpurea).*The project will span over 5 years mobilizing a total of $4,583,196 GEF investment.

FINANCING PLAN	
GEF Trust Fund	USD 4,583,196
UNDP TRAC resources	USD 75,000
Confirmed cash co-financing to be administered by UNDP	USD 75,000
(1) Total budget administered by UNDP	**USD 4,658,196**
(2) Total further confirmed co-financing[1]	**USD 57,453,000**
(3) Grand total project financing (1)+(2)	**USD 62,111,196**

SIGNATURES

Signature: **Mr. Allanur Altyyev**	**Agreed by Ministry of Agriculture and Environment Protection of Turkmenistan**	**Date/Month/Year:** 03.03.22
Signature: **Ms. Narine Sahakyan**	**Agreed by UNDP**	**Date/Month/Year:** 03.03.22

[1] This co-financing does not incur financial obligations towards Project budget.

PROJECT GOAL, OBJECTIVE, OUTCOMES AND OUTPUTS/ACTIVITIES

The ***objective*** of the proposed project is to promote land degradation neutrality, restore and improve the use of land and water resources in Turkmenistan's Amudarya watershed in Lebap and Dashoguz provinces to enhance the sustainability and resilience of livelihoods and globally significant ecosystems. The long-term solution for sustainable development and conservation of high value ecosystems has multiple key goals, but revolves around the concept of Land Degradation Neutrality (LDN) and around leveraging KBAs/IBAs within the wider landscape as the focal points for integrated land use management with biodiversity benefits from mainstreaming. This includes promotion of models of non-depleting farming, but at the same time effective conservation of critical ecosystem services. The experience will be shared and replicated beyond project boundaries through a series of lesson sharing events. The project will attempt to achieve this objective through a multifocal strategy, that includes the following three interrelated outcomes and their respective outputs and activities:

- Outcome 1: **Integrated land use planning** that will contribute to the land degradation neutrality and improved integration of key biodiversity habitats into surrounding geographies, thus securing critical ecosystem services in Dashoguz and Lebap regions;

- Outcome 2: **Addressed 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 in project regions; and

- Outcome 3: **Strengthened national capacity and better informed engagement of Turkmenistan in implementation of regional cooperation** for improved management and restoration of Aral Sea Basin land and water resources

- Outcome 4: **Project results properly monitored and evaluated**

Project activites and expected results

Component 1. ***Promoting Land Degradation Neutrality***

Outcome 1 Land degradation neutrality in Aral basin promoted, as evidenced through: (i) LDN-compatible land use in 660,000 ha of production landscape; (ii) crop resilience to salinization improved in 10,000 ha (iii) 60,000 ha of degraded pasture, forest and arable land restored; (iv) improved livelihoods of 9,750 farmers (30% women) with immediate replication potential for 100,000 people.

Output 1.1 *Integrated landscape plans for priority areas in Dashoguz and Lebap provinces* The project will support the revision of the National Action Plan to Combat Desertification and will support the government with the national LDN baseline collection, and at the same time, connect the project-supported regional LDN target setting (in Dashoguz and Lebap provinces) with the government-supported National LDN target setting process. The results and recommendations will be included in the National Plan to Combat Desertification, the implementation of which will become mandatory upon official approval. The project's focus will therefore be on the regional LDN target setting in the two provinces but additionally, and more importantly, on creating the needed synergy with the National LDN target setting process, within the broader SDGs Agenda.

Activity 1.1.1. *Targeted capacity development and knowledge sharing on LDN and integrated land use planning within the broader SDG agenda* The project will support stakeholders' participation in LDN target setting and integrated land use planning, and will strengthen their technical knowledge by delivering the capacity building workshops for the national and local authorities. In addition, a number of informative meetings will be organized for the central and regional/local administrative and strategic planners within the State Committee on Water Resources and Ministry of Agriculture and Environment Protection (MAEP), Land Resources Service, Turkmen Agricultural University named after S.A. Niyazov, Turkmen Agricultural Institute and Academy of Science. A Regional LDN Workshop will be organized under the leadership of the MAEP and the Ministry of Foreign Affairs, with the participation of UNCCD representatives, GEF, UNDP, FAO experts.

Activity 1.1.2 *Setting up an enabling platform for LDN target setting and implementation.* This activity will support institutional coordination and inter-sectorial cooperation by bringing stakeholders together under an Inter-sectorial LDN

Expert/Working Group to be set up under the Inter-sectorial Commission on Environmental Protection chaired by the Ministry of Agriculture and Environmental Protection (MAEP). The LDN Working Group will provide a multi-stakeholder platform to secure active participation of key stakeholders in National and Regional LDN targets setting. This group will support baseline collection for the LDN targets setting, identifying the main drivers of land degradation and biodiversity loss. This Inter-sectorial Working LDN expert group will have at least four meetings in a year to validate intermediary results.

Activity 1.1.3. *Support to mainstreaming LDN into policy framework.* LDN concept will be mainstreamed into the existing legislative framework and the project will have several key entry points incremental to the government's efforts: (i) support to the revision of the *Action Plan to Combat Desertification*. (ii) then, the project will develop bylaws to the *Law on Pastures* to include pasture use regulations and institutional arrangements for mandatory pasture use monitoring responsibilities at local level. Additional measures will be developed to regulate Pasture Lease Agreements, with the inclusion of distinct requirements for applying sustainable carrying capacity, mandatory implementation of rotational grazing, use of distant pastures and pasture monitoring. (iii) the project will further support amendments to the *Land Code* in order to introduce the definition of the LDN concept and means to implement it through mandatory integrated land use planning. (iv)the project will also support the government's efforts under the National LDN target setting exercise, to identify LDN investment opportunities through a more targeted analysis of the possibilities to integrate LDN within the available financial mechanisms.

Activity 1.1.4 *LDN target setting at regional level in Dashoguz and Lebap provinces*. The LDN baseline on the region level is the land-based natural capital as measured by three voluntary LDN indicators (land cover change (LCC), land productivity, SOC) and additional national indicators. The main stages of the Regional LDN targets setting process will be included following such activities as Stakeholders engagement and trainings (under Act. 1.1.1); Setting the land degradation neutrality baseline; Assessing land degradation; Defining regional voluntary LDN targets for the three main LDN indicators; Mainstreaming LDN in land use planning; Establishing measures to achieve LDN targets; Development of Regional LDN Action Plans in both regions.

Activity 1.1.5 *Integrated land use planning in Dashoguz and Lebap* will be coordinated with the Activity 1.1.4 stage "*LDN Planning and Implementation*" and the process will be led by an International LDN Land Use Planning Specialist and national LDN Specialists. In close cooperation with MAEP the project will explore the possibility of using the Innovative technologies on Land Use Planning (software and GIS) for the application of LDN concept in the integrated land use planning in the 4 pilot districts, the existing conditions, the LDN hot-spot areas and high risk (of degradation) area and in these areas in the future cost-effective SLM prioritized.

Output 1.2 Investment in community-based restoration of degraded arable and forest lands in 2 provinces, including saxaul planting in degraded areas; introduction of salt-tolerant crop varieties, and facilitating natural regeneration of tugai forest, with high potential for income for local communities. Under this output the project will support land and forest restoration in high priority areas identified under Output 1.1. with an end-of-project target of 10,000 ha to be restored. Within the identified "LDN hotspots" the project will select the following measures and land types: (i) 4,700 ha of degraded irrigated areas to be restored (ii) desert forest landscape to be restored through saxaul planting planned on 5,000 ha (iii) support to natural regeneration of tugai forest planned to be demonstrated on 300 ha.

Activity 1.2.1*: Restoration of degraded irrigated areas on 4,700 ha.* Based on the identified " LDN hotspots" (under Output 1.1), the restoration methodology and 5-year workplans will be developed in close cooperation with the MAEP, State Committee of Water resources, local authorities of targeted districts and with the daikhan associations and private farmers to support planning for the restoration of degraded irrigated areas. Under this activity innovative phyto-melioration methods of marginal highly saline degraded land will be tested on approximately 20 ha. This work will be also supported through performance-based grants to farmers who will participate in the project's restoration activities, using only demonstrated cost-effective measures (further described under Output 2.3).

Activity 1.2.2: *Restoration of 5,400 degraded desert saxaul forest.* During the PPG phase, the preliminary selection of the targeted 5,700 degraded saxaul forest ecosystem has been conducted in consultation with local authorities in both provinces. The proposed sites are as follows: (i) In Dashoguz province (Ruhubelent district) south of Zengibaba, Goyungyrlan KBA/IBA. The area is approximately 4,150 ha with shallow sands. (ii) in Lebap province, Deinau district, on north-western part of Kattashor, Kattashor-Rakhmankol, select 1,050 ha of small hilly sands. The proposed sites have been preliminary considered due to the proximity to KBAs/IBAs to reduce salinization and degradation of the soil and will be implemented in coordination with Output 2.1/Activity 2.1.1. The final validation of the selected sites will be aided by the analysis of the land degradation under Activity 1.1.4. and will be selected based on the cost-effectiveness estimations of each intervention (ensured by the project experts and economists).

Activity 1.2.3: *Restoration of 300 ha of tugai forest.* The project targeted tugai areas are located in Lebap province, near Gorelde portion of the Amudarya State Nature Reserve in Darganata district. The project will work with the State Forest Fund and Amudarya State Nature Reserve staff to implement restoration measures consisting in (i) assisted regeneration (i.e. accelerating successional processes by removing barriers to natural forest regeneration such as grazing or wood harvesting) and (ii) conventional reforestation by planting seedlings in open areas. Although the tugai forests located within the Amudarya State Natural Reserve are protected in accordance with the Protected Areas law, the lack of buffer areas and lack of connectivity of tugai tickets (some of which are outside the borders of the reserve) renders the tugai vulnerable to anthropogenic pressure. The selected site of 300 ha near Gorelde, is currently allotted for temporary use, for irrigated farming. During the PPG stage, the meetings with the local authorities and local farmers have secured a principle agreement to swap this tugai area, which is currently farmed, with another arable area that will be restored with the project's support.

Activity 1.2.4 *Promoting innovation in support of LDN achievement:* An Innovation Challenge will be organized, based on UNDP rules and procedures for Innovation Challenges, to promote innovative business solutions, innovative technologies, policies, regulations, and financial instruments aiming at improving land governance and reversing land degradation. The Innovation Challenge, could explore solutions to further adapt (as necessary) the Innovative Land Use Planning software, promoted by UNCCD through open-source data, as a result of the recent GEO-LDN Technology Innovation Competition (Act. 1.1.5). The proposed Innovation Challenge is aligned with the government's priorities under the National Programme for Socio Economic Development of Turkmenistan (2011-2030) and with the UNDP priorities under the Country Programme Document (CPD) 2021-2025, particularly aimed at improving sustainable agricultural practices, technical knowledge on sustainable land and water management sustaining resilient livelihoods. The project will select a Responsible Party for the organization of the contest, approved by the Project Board and will set up a Task Force for the evaluation of the proposals.

Output 1.3. Efficient water management of irrigated land in four priority districts (S. Turkmenbashi and Ruhubelent districts in Dashoguz and Darganata and Deinau districts in Lebap), including: maintenance of water management infrastructure, operationalization of multi-stakeholder Water User Groups (involving local communities), introduction of best practice in irrigation technologies. The project 's work under this output will result in 100,000 ha of irrigated land under sustainable water management planning in the four targeted districts of the two selected provinces. The sites have been preliminarily selected at PPG stage based on the discussions with local district authorities, and interest coming from several daikhan associations (i.e.Ak Altyn in Turkmenbashi; Ashyk Aidyn in Ruhubelent; Kabakly and Taze Yurt in Deinau and Lebap in Darganata district) and will be validated at the inception stage with consensus with the same or with new daikhan associations (depending on the results of the re-structuring of the daikhan associations on-going since 2020) and are located as follows: (1)In Lebap province, in Deinau district, there are 43,711.55 ha irrigated area selected around KBA/IBA Ketteshor-Ramankol; (2)In Lebap provice, in Darganata district, the total irrigated areas are 6,436.89 ha (as the irrigation system is poorly developed and irrigated areas are covering only 8,200 ha); the sites are near Amudarya State Nature Reserve (Gorelde area). (3) In Dashoguz province, in Turkmenbashi district, the irrigated areas selected cover 20,324.27 ha; in the proximity of the borders of Sarygamish and Shasenem Sanctuaries KBAs/IBAs. (4) In Dashoguz province, in Ruhubelent district, the irrigated areas selected cover 29,905.34 ha is in the production zones around Sarygamish Sanctuary KBA/IBA. The planned activities include small scale repairs or improvements of the water management infrastructure (e.g. pumps, canals) and the application of international best practices, innovative technologies for water saving irrigation and crop resilience techniques.

Harmonization of water management solutions between Turkmenistan and Uzbekistan is extremely important and activities under this Output will include video conferences facilitated by the project and national representatives in IFAS with specialists from both countries.. A field trip of 10 water specialists to Uzbekistan will be further organized by the project, in order to share good practices and consult on the proposed solutions in view of harmonization of sustainable water management measures in Amudarya River Basin (middle and lower reaches).

Regulatory amendments to the Water Code will be developed by the project, in order to include the definition of water depended lakes/wetlands as Water objects in the Law and embed provisions for mandatory minimum ecological flows. Recommendations for decision makers and draft Inter-institutional Agreement to enable a more equilibrate allocation of water among multiple water users and increase of water release to lakes and wetlands while reducing water waste at farm level will be drafted (Act. 1.3.1). These measures will be submitted for approval by the State Committee on Water Resources and Ministry of Agriculture and Environmental Protection.

Activity 1.3.1 *Development of Integrated Sustainable Water Management Plans* (ISWMP) in the four project districts which includes practical recommendations for improved water allocation among multiple water users. The plans will include specific proposals for upscaling the measures piloted on 100,000 ha to the full scale of the province level. The ISWMP will

include on targeted 10,000 ha (out of these 100,000 ha of irrigated areas) distinct measures to ensure resilience to salinization by selection of salt and drought tolerant crops and crop rotation (in coordination with Activity 1.2.1) aiming at demonstrating an improvement in soil productivity targeting: (i) reduction in soil salinity; (ii) reduction of water wastage; (iii) humus content. The project will demonstrate the feasibility of these measures on approximately 100 ha, and the most feasible and cost effective measures could be further replicated (under Act 1.3.3). The experts from Academy of Science, Turkmen Agricultural Institute in Dashoguz, Research Institute on Agriculture, Water Design and Research Institute (Turkmensuwylymtaslama), Agricultural University in Ashgabat will be involved in the review the good practices to identify the best suitable and cost-effective farming methods and crop rotation and crop resilience to salinity measures for 10,000 ha of irrigated land, in consultation with the farmers and daikhan associations.

***Activity 1.3.2**: Operationalization of Multi-Stakeholders Water Users Groups (WUGs)* The project will work with the local authorities and daikhan associations and will establish 4 WUGs in the 4 targeted districts, based on the Adaptation Fund WUG establishment Manual and Guidelines, and after the approval of local authorities and farmers association. The WUGs will be set up taking into consideration the water basin principles and management of irrigated areas around main irrigation systems e.g. Berzen Irrigation System in Deinau and Kranch Han yap in Darganata; Diyarbekir in Ruhubelent and Bo yap and Yartigala yap in Turkmenbashi . The WUGs will be supported to write funding proposals and apply for financing under the grant mechanism of the project (Output 2.3) and for soft loans under the existing government's programme implemented by Daikhan Bank. In addition, the project will organize a number of on-demand 4 training workshops on land-water legislation (in conjunction with the other SLM/water management trainings), led by the project legal specialists and facilitated by the project local extension officers, in order to support farmers applications for long-term land leasing and mobilise additional soft loans for the implementation of SLM measures.

***Activity 1.3.3** Demonstration of best practices in irrigation technology and horticulture measures.* These project-supported measures will be carried out based on the measures agreed under the ISWMP in the selected locations and in the targeted districts. The project will work with the WUGs and local Water Production Departments at district level to support demonstration of different structural and non-structural measures envisaged under the SWMP (the rest of the measures will be financed by state funds).. The selection of technology will be based on recommendation in the ISWMP and the project's experts will further ensure monitoring of the selection and procurement of technology at the project's demonstration sites. There will be expectation of co-financing from private farmers (in the form of labor or other technical inputs). In addition, funds will be made available (under Output 2.3), based on performance-based grants proven cost effectiveness and ecological benefits. The measures supported by the project will have additional demonstrative purpose, promoting the good practices in water management and will be selected based on cost-effectiveness estimations of each intervention and will include:

- Assisting the improvement and further development of the basin planning and management of the Deinau etrap Water Production system "Berzensuwaryshulgamy", to enhance the condition of the Berzen Irrigation system. This will include water measuring and water regulating devices such as the construction of 2 small water regulation structures on on-farm canals.
- Assisting the farmers with technical advice on crop simulation models, quantification of crop yield response to water, devising strategies to improve agricultural water management. Based on lessons learned from the UNDP/GEF project "Supporting climate resilient livelihoods in agricultural communities in drought prone areas of Turkmenistan", however other software may be explored according to farmers' needs.
- Restoration and canal repairs (10 km irrigation canal and 10 km drainage canal) in the targeted areas in Dashoguz and Lebap provinces, on 2 on-farm canals to facilitate the flow of an adequate volume of irrigation water.
- Carrying out anti-seepage measures on small local canals; Land grading using laser equipment for the preparation of irrigated land.
- Planning and preparation of 100 ha of irrigated areas using laser leveling equipment for Turkmenbashi and Ruhubelent districts (Dashoguz province).
- Procurement of 4 drip irrigation technology equipment, on demonstration fields (on selected farmlands) in the 4 targeted districts, serving approximately 40 ha.
- Demonstration field of at least 20 ha marginal land in each district will be selected to carry out: cleaning and soil preparation, planting salt tolerant species (in coordination with Output 1.2.); select demonstration field with water reuse technology in the irrigated areas (i.e. use of drainage water through mixing or desalinization)
- Good practices on crop resilience to salinization will be demonstrated on approximately 100 ha. The good results will be scaled up on 10,000 ha (under Activity 1.3.1). Examples of the potential measures that could be considered

are extracted from the available account of the best practices[2]: (i) Alfalfa (*Medicago sativa*) planting on saline 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 will be applied; a feasible combination of *Climacoptera turcomanica* (or another halophyte) and alfalfa will be tested and scaled up (in coordination with Output 1.2); (ii) Sowing cotton at the bottom of irrigation furrows; (iii) On marginal areas, sowing watermelons in loosened strips; (iv) Establishing mini-strips during wheat sowing

- Apart from the trainings under Activity 1.3.2, the project will further organize 4 Farmers Field Schools and 8 seminars with students and teachers at Agricultural Colleges. The Farmers Field Schools will be organized at the demonstration sites.
- The Manual on Best practices in Irrigation and Crop Resilience to Salinity and recommendations for scaling up of good practices will be developed and submitted for approval of the decision makers at the Ministry of Agriculture and Environment Protection and the State Committee on Water Resources.

Output 1.4 Sustainable pasture management regimes in 4 priority districts introduced raising productivity of livestock management for local communities, including: sustainable pasture management plans focusing on rotational grazing and efficient and sustainable livestock watering infrastructure. The work under this output will support shepherds associations, private livestock farmers and local authorities, develop sustainable pasture management on approximately 500,000 ha of pastures in the targeted provinces based on their proximity/ or overlapping with KBAs/IBAs, affected by overgrazing, and not benefiting to date from any protection form. The pasture management plans will be linked with government investment plans. The project will work the district authorities to create/strengthen Pasture Monitoring Committees under their mandate or under State Livestock Farms mandate. For the implementation of field measures the project will cooperate with Dashoguz and Lebap province forestry enterprises and the environmental protection departments of the Ministry of Agriculture and Environmental Protection in Turkmenistan.

Activity 1.4.1 *Sustainable management regimes of 500,000 ha of pasture areas*. The proposed pasture areas have been preliminarily selected at PPG stage and includes pastures of the 4 targeted districts and buffer zones of Gaplangyr State Nature Reserve and Amudarya State Nature Reserve.The project will support gender sensitive pasture management plans for 500,000 ha through the following proposed steps:

- Inventory of pastures in the selected project sites, assessment of the pasture use patterns and seasonal distribution of livestock; drawing maps based on surveys results;
- Mapping sensitive areas and clarification of regulations on pasture allocation and norms on carrying capacities for each pasture type, livestock, and forage guidelines.
- 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 pasture rotation measures, alignment with the integrated LDN compatible land use planning and mapping under Output 1.1. The selected pasture sites under the project scope will promote pasture management and grazing measures that will contribute towards preventing and reducing degradation in pasture areas.
- Planning for annual harvesting of fodder crops (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.
- Planning for distribution of livestock manure in select areas of the landscape to increase soil fertility.
- Creation and maintenance of pastures plants, and potential seed nurseries with native species.
- Design a Pasture monitoring scheme.

The project will develop the regulatory amendments to the Law on Pastures on the carrying capacity, leasing agreements and institutional arrangements for mandatory pasture monitoring. The project District Committees will facilitate the integration of these project-supported sustainable pasture management regimes with the exiting government plans for investments in pasture areas at local level. The project will organize at least 8 training workshops on Sustainable Land Management (SLM) measure. Training on SLM measures will be delivered in the context of achieving Land Degradation Neutrality (LDN).

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[2] Technologies and approaches on Sustainable Land Management in central Asia (Publication compiled with the support of the Project Knowledge Management in Central Asian Countries Initiative for Land Management (CACILM) Phase II, the International Center for Agricultural research in Dry Areas (ICARDA)- WOCAT https://www.wocat.net/library/media/97/

Activity 1.4.2 *Restoration of 50,000 ha of degraded pastures* The activities will be implemented in coordination with Output 2.3. promoting sustainable agricultural practices and ecological corridors around PAs, KBAs/IBAs. The Pasture Management Plans and restoration measures will include a Monitoring Scheme tracking progress towards the intended targets that are monitored through the project: (i) 50% vegetation cover increase observed on clay desert pastures (stable plant communities of black saxaul *Haloxylon apphyllum* and chogon *Aellenia subaphylla* formed on formerly bare takyr soil); (ii) 50% increase of vegetation cover observed on sandy pastures (suggested proportion: 30% shrubs; 60% semi-shrubs; 10% herbaceous vegetation); (iii) at least 30% of sown plants in generative growth stage by end of the project; (iv) 50% increase of distant pasture use. The project will also support the refurbishment of 6 water wells, the construction of 4 new water wells and the construction of 2 new water harvesting facilities ("khaks" and "sardobas") in each targeted district. The location of water facilities and wells will be selected based on optimum environment and socio-economic benefits scenario. The new and refurbished water facilities will be located on strategically selected areas, that will enable the use of distant pastures and the application of pasture rotation measures.

Activity 1.4.3 *Demonstration of sustainable pasture management and reduced pasture degradation* The selected plots for direct demonstrations should amount to a total of 700-800 ha in each province, deemed sufficient to demonstrate sustainable pasture management (pasture rotation) and reducing or restoring highly degraded pasture. In addition, the project will set up a grant mechanism to support farmers restore their degraded pastures. This activity will be coordinated with Activity 1.2.2 and 1.2.3 (restoration of desert forests) as well as with Output 2.3. The project will organize 8 trainings on sustainable pasture and forest management including 4 Farmers Field Schools on pasture restoration (years 2-5)..

Component 2 Securing Critical ecosystems for Biodiversity and Ecosystem Services

Outcome 2 Secured biodiversity status in 1,077,554 ha in the focused 2 State Nature Reserves Gaplangyr and Amudarya and their sanctuaries; and local community supported ecological corridors covering 292,607 ha KBAs/IBAs in the Amudarya basin landscape, as evidenced by: non-deterioration of globally threatened species, including Egyptian vulture, Saker falcon, Dalmatian pelican, Houbara bustard, Cinereous vulture, Ferruginous duck. New protection mechanisms established covering additional 60,000 ha of currently unprotected KABs, increasing PAs coverage of KBA are in the target landscape by approximately 5%. However, PAs cover less than 50% of the KBA territory targeted within this project, and it is therefore also necessary to ensure the sustainable use of resources within the buffer zones and corridors surrounding PAs.

Output 2.1 Management effectiveness supported for 2 existing PAs including improved management, and targeted investments; support to local tourism potential to facilitate additional income generation for local communities at targeted PAs; control over illegal activities. The project will make specific and targeted set of investments for each of the two targeted reserves and sanctuaries based on baseline METTs and capacity needs assessment conducted during the PPG, with the goal of addressing the most important needs and raising the level of their management effectiveness (as measured by the METT).

Activity 2.1.1 *Development of the Amudarya State Nature Reserve Management and Business Plan, improved zoning in PAs and support wild ungulates counting*. The Business Plan[3] will contain several financing initiatives and assessment of watering infrastructure, including preparation of background documents for official approval of the ultimately proposed zoning, habitat mapping of key species and on-the-ground delineation of the buffer areas around the reserve.

Activity 2.1.2 *Support to PA infrastructure and equipment for management, monitoring and conservation activities* In Amudarya and Gaplangyr State Nature Reserves, the project's support will include strengthening cordons, security zones, support to basic research facilities and establishment of monitoring protocols will be facilitated as well as the establishment of basic management/monitoring infrastructure: 5 observation towers are envisaged to be set-up in each Protected Area, building new enclosure for wildlife (kulan, gazelle and deer),procurement of operational IT equipment, GIS devices and field equipment for monitoring and conservation activities, procurement of two vehicles. The project will also support aerial counting of ungulates and water birds in both State Nature Reserves and will work with Uzbekistan specialists for the creation of transboundary migration corridors. The project will further support cross-border cooperation and exchange and will organize 2 field trips of a Turkmenistan delegation (5 people) to Kazakhstan and Uzbekistan, for joint programming and harmonised research and monitoring approaches under the Convention on Migratory Species.

Activity 2.1.3 *Delivery of trainings for the PAs and management authorities.* The project will conduct an initial Training Needs Assessment (TNA) of the PAs (TNA and training will cover all of Turkmenistan's PAs). A total number of 10 training workshops for the PAs staff; 3 trainings for central and local authorities and 2 trainings for border inspectors will be supported by the project.

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[3] The project will support the identification of business opportunities and alternative income generation, either through the development of a full Business Plan or the inclusion of income generating activities in the Management Plan.

Activity 2.1.4 *Delivering on eco-tourism potential* Project will support an Assessment of the eco-tourism potential in the Amudarya State Nature Reserve and Gaplangyr State Nature Reserve and KBAs/IBAs under the project scope and a legal assessment of the main laws and regulations related to eco-tourism with recommendations of ways to introduce incentives and other market mechanisms to encourage private rural entrepreneurs. Based on these two assessment reports, the project will develop the necessary legal amendments to the Law on Tourism.

Activity 2.1.5 *Strengthening capacities to prevent illegal activities* Apart from improving zoning and delineating clear buffer areas on the ground, the project will strengthen patrolling and environmental inspection skills of the inspectors and PAs rangers. The Training topics will be identified based on a Training Needs Assessment (Activity 2.1.1).

Output 2.2 *New protected areas operationalized through new and innovative approaches covering 60,000 ha of unprotected high priority ecosystems.*

Activity 2.2.1 *Increasing the level of biodiversity protection and /or improved integration in the surrounding landscape of KBAs/IBAs.* This activity aims at increasing the PAs coverage of KBAs that currently exist outside the protected area system. To better assess the level of threat and the ecological status of KBAs/IBAs that are not covered by PAs system, the project will develop a Gap Analysis of IBA/KABs Anthropogenic Threats in order to identify the most critical KBAs/IBAs, habitats and ecosystems that are currently not included within the PAs system, which are under anthropogenic pressure.

Activity 2.2.2 *Designation of new PAs* The project will focus on approximately 40,000 ha in Darganata district, proposed "Pitnyak Sanctuary" At the PPG stage, together with the Ministry specialists, this area was proposed to include Pitnyak upland and the heights of Altykarash, Zheldi and Muyger, part of the water areas of the Sultansanjar and Koshbulak reservoirs. The second area to be further analysed and proposed as a new PA is located in Ruhubelent district, Dashoguz province, and includes Lake Zengibaba, covering approximately 20,000 ha (proposed as a Sanctuary IUCN IV category). The management measures of the new PAs will include biodiversity conservation and protection measures as per applicable regulations.

Output 2.3. Implementation of biodiversity -friendly sustainable use regimes in PA buffer zones and corridors covering approximately 292,607 ha aiming at increasing security of biodiversity status, promoting environmentally friendly agricultural practices and providing alternative income to local communities. The project's focus under this output will aim to improve the integration of protected areas, KBAs/IBAs and biodiversity hot spots within the wider production landscape, with attention to the sustainability of land and water use in the buffer zones and corridors of PAs, within the overall KBA (IBA) areas. The work under this output is linked to the sustainable pasture and land management in the production zones and surrounding geographies of PAs, KBAs/IBAs.

Activity 2.3.1 *Identification and delineation of ecological corridors and community-based agreements at endangered IBA/KBAs* Improving zoning around the targeted reserves will be complemented by the delineation of the corridors for wildlife feeding and migration, aiming to improve the integration of PAs within the wider production landscape. The project will further support the current efforts of the Ministry of Agriculture and Environmental Protection and Birdlife International partner, to designate Tallymergen KBA/IBA as a Sanctuary (IUCN IV). The area of about 167,701 ha is located in Dovletli district in Lebap province, and it hosts more than 60% of the world population of a globally threatened bird species *Vanellus gregarious* during its autumn migration.

Activity 2.3.2 *Grant mechanism to demonstrate sustainable agricultural practices and sustainable income generation in production zones* The modality selected by the project is supporting local communities through a Grant mechanism which will include performance-based grants (based on UNDP Low Value Grants Policy) that will be complemented with technical assistance for mobilizing available financing (i.e. soft loans). The PPG conducted preliminary discussions with the main banks (Daykhan and Turkmen banks) in view of assessing the opportunity of setting up a dedicated new financial product for financing LDN compatible sustainable land management measures. The project will consider therefore a three-pronged approach under these circumstances: 1) firstly, it will support the government's efforts under the National LDN target setting exercise, to identify LDN investment opportunities through a more targeted analysis of the possibilities to integrate LDN within the available financial mechanisms; 2)secondly it will provide targeted capacity building to farmers and private rural entrepreneurs on development of bank applications and farm business plans necessary to access soft loans for sustainable irrigation measures and pasture management; and 3) thirdly, it will set up a Grant mechanism for targeted investments in the LDN compatible SLM promoted by the project

Component 3. International knowledge sharing and cooperation for the Aral Sea Basin.

Outcome 3. Strengthened and better-informed engagement of Turkmenistan in implementation of regional cooperation under the International Fund for Saving the Aral Sea (IFAS) for improved management and restoration of Aral Sea Basin

land and water resources, as evidenced by: (i) Turkmenistan is better represented at key regional forum and events supporting the restoration of the Aral Sea, and (ii) Support provided to international dialogue and cooperation on IFAS.

Output 3.1 Higher capacity for government and scientific institutions for participating in IFAS. In the framework of this output the project will implement the following: (i) organize at least 3 IFAS meetings attended by Turkmenistan delegation where Turkmenistan contributes to decisions at IFAS (ii) targeted knowledge management and exchange products (web-based, TV programs, trainings for communities and decision makers) on LD and BD issues in the Aral Sea (iii) outreach and awareness raising on the problems of the Aral Sea basin, supporting Turkmenistan's efforts to address degradation. The project will contribute to a strengthened cooperation for an effective implementation of the regional environmental protection programmes for sustainable development in Turkmenistan through the organization 10 training workshops and exploration the partnerships with the NGOs, including the following activities:

Activity 3.1.1 *Providing support to IFAS for finalizing, launching and implementing international and regional initiatives put forward by Turkmenistan to address the problems of the Aral Sea Basin and strengthening national capacities to participate in IFAS meetings.*

Activity 3.1.2 *Targeted knowledge management and trainings for communities and decision makers on LD and BD issues in the Aral Sea.*

Activity 3.1.2 *Implementation of outreach and awareness raising events on the problems of the Aral Sea basin, supporting Turkmenistan's efforts to address degradation.*

Output 3.2 Knowledge management; Lessons documented and disseminated within project partners and amongst stakeholders.

Activity 3.2.1 *Systematizing project experience.* The project's focus under this output is on knowledge management and Coordination/cooperation with other projects

Component 4. Monitoring and Evaluation

Outcome 4.1 Project results properly monitored and evaluated

Output 4.1.1 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.

MANAGEMENT ARRANGEMENTS

Roles and responsibilities of the project's governance mechanism

Implementing Partner (IP)

The Implementing Partner for this project is *the Ministry of Agriculture and Environmental Protection of Turkmenistan.* The Project will be nationally implemented (NIM) in line with the Standard Basic Assistance Agreement between the Government of Turkmenistan and the United Nations Development Programme (UNDP), signed by parties on 3 December 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. Specific tasks include:

a. Project planning, coordination, management, monitoring, evaluation and reporting. This includes providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results , as necessary. The Implementing Partner will strive to ensure project-level M&E is undertaken by

national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.

b. Risk management as outlined in this Project Document;
c. Approving and signing the multiyear workplan;
d. Approving and signing the combined delivery report at the end of the year; and,
e. Signing the financial reports or the funding authorization and certificate of expenditures.

The Ministry of Agriculture and Environmental Protection has been involved in the implementation of GEF projects before, including UNDP/GEF projects however, it has never received and operated GEF resources directly, as the earlier projects were implemented with UNDP Country Office support. The MAEP will have substantive supervisory functions and roles, while the project administration capacities and functions (contracting, recruitment of personnel and experts, finance administration and administrative support to project processes) will be sought from a qualified third party/ Responsible Party (RP).

Responsible Party (RP)

The private enterprise "Ynamly Kepil" has been selected as Responsible Party (RP) as a result of the HACT Micro Assessment conducted. The PCAT Assessment has also demonstrated that private enterprise "Ynamly Kepil" is well capacitated to provide partial execution support for the project. Necessary due diligence has been conducted as part of PCAT for the private entity. The decision on selection has been discussed and consulted with the IP (MAEP). In line with UNDP rules, actual contracting of RP(s) will take place after project approval during the inception phase.

At the same time, PCAT and HACT assessments as well as extensive consultations with the MAEP and the potential RPs have indicated certain capacity limitations related to the national legislation and internal regulations of the RPs, especially related to the capacity of executing international payments and procurement and coordination with other international donors and development partners.

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

Due to the RP identified capacity constraints, support services of UNDP will be specifically requested on an exceptional basis, in accordance with the GEF Guidelines on Project Cycle C95.Inf.03 dated 20 July 2020. A strict firewall will be maintained between the delivery of project oversight and quality assurance performed by UNDP and charged to the GEF Fee and UNDP supported project execution charged to the project management costs.

The requested support services and their estimated costs are specified in the Letter of Agreement (Annex 1). The service costs will be identified in the project budget as Direct Project Costs, based on estimated actual or transaction-based costs and will be charged to the direct project costs account code 74596 – 'Services to projects - GOE for CO'.

Project Board

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. 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.

Specific responsibilities of the Project Board include:

a. Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
b. Address project issues as raised by the project manager;
c. Provide guidance on new project risks, and agree on possible mitigation and management actions to address specific risks;
d. Agree on project manager's tolerances as required, within the parameters set by UNDP-GEF, and provide direction and advice for exceptional situations when the project manager's tolerances are exceeded;
e. Advise on major and minor amendments to the project within the parameters set by UNDP-GEF;

f. Ensure coordination between various donor and government-funded projects and programmes;
g. Ensure coordination with various government agencies and their participation in project activities;
h. Track and monitor co-financing for this project;
i. Review the project progress, assess performance, and appraise the Annual Work Plan for the following year;
j. Appraise the annual project implementation report, including the quality assessment rating report;
k. Ensure commitment of human resources to support project implementation, arbitrating any issues within the project;
l. Review combined delivery reports prior to certification by the implementing partner;
m. Provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
n. Address project-level grievances;
o. Approve the project Inception Report, Mid-term Review and Terminal Evaluation reports and corresponding management responses;
p. Review the final project report package during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.
q. Ensure highest level of transparency and take all measures to avoid any real or perceived conflict of interest

The composition of the Project Board include the following roles:

r. *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 this person will act as the National Project Coordinator (NPC) throughout the project implementation and will be part of the Project Board and answer to it. The NPC will be financed through national government funds (co-financing). The Executive is ultimately responsible for the project.

s. *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 support project activities and ensure the realization of project results from the perspective of project beneficiaries. The Beneficiary representatives will be nominated at the Inception Phase.

t. *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 will include project's key partners and representatives of the central government actively participating in the project implementation and formal approval of project outputs.

u. *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.

v. *Local Coordinating Committees (LSC)*: will have one representative in the Project Board. Local Coordinating Committees are set up at district level, in each targeted district, and are formed by project experts and district specialists of the local branches of national institutions in agriculture, water management and PAs sectors in the pilot districts. The LSC will be facilitated by Field Coordinators, Project Specialists and Project Manager and will be chaired by representative of the IP (Ministry of Agriculture and Environment Protection). The LSC will be meet quarterly/once per six months to review progress towards the outputs and outcomes, identify problems in achieving the results and milestones, facilitate coordination across sector agencies and programs, help resolve conflicts over resource use and actively facilitating the necessary multi-stakeholder consultations at every stage.

Project management unit (PMU)

The Project Manager (PM) 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'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. The PM will be supported by a Project Financial and Administrative Assistant, who will assist in project planning, revisions and budget execution documents, contracting of national / local consultants and all project staff, in accordance with UNDP procedures and national legislation requirements.

Project extensions

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

Proposed Project Organization Structure is presented below: