AN INTEGRATED LANDSCAPE APPROACH TO ENHANCING THE CLIMATE RESILIENCE OF SMALL-SCALE FARMERS AND PASTORALISTS IN TAJIKISTAN

INCEPTION PROJECT REPORT

Dushanbe
August 28, 2021

INTRODUCTORY NOTE

The report describes the results of the proposed Adaptation Fund (AF) project during the inception phases that introduce an integrated approach to landscape management to develop the climate resilience of rural communities in Tajikistan". The project Multilateral Implementing Entity is UNDP and the Implementing Partner for this project is the Committee for Environmental Protection (CEP) under the Government of the Republic of Tajikistan, funded by Adaptation Fund.

Project Category:	Regular Project
Country:	Tajikistan
Project Title:	"An integrated landscape approach to enhancing the climate resilience of small-scale farmers and pastoralists in Tajikistan"
Type of Implementing Entity:	Multilateral Implementing Entity
Implementing Entity:	UNDP
Executing Entity/ies:	Committee for Environmental Protection (CEP) under the Government of Tajikistan
Requested Financing from Adaptation Fund (US Dollars):	US$ 9,996,441
Target Project Area:	The proposed project's activities will focus within one of the most climate-vulnerable river basins, namely the Kofirnighan River Basin (KRB). It will cover six target districts, namely Vakhdat, Faizobod and Varzob in the north; and Nosiri Khusrav, Kabodiyon and Shaartuz in the south.
Duration:	5 Year
Partners:	Committee of Environmental Protection (CEP) State Agency on Hydrometeorology (Hydromet) of the CEP Open Centre under the Department of Geology (DoG) University of Central Asia (UCA)

.

Table of Contents

1. LIST OF ABBREVIATIONS

KRB	Kofirnighan River Basin
IPW	Inception Project Workshop
CEP	Committee for Environmental Protection
PSC	Project Steering Committee
WB	World Bank
ADB	Asian Development Bank
EBRD	European Bank for Reconstruction and Development
DFID	Department for International Development
SDC	Swiss Agency for Development and Cooperation
UNDP	United Nations Development Programme
FAO	Food and Agriculture Organization
WFP	World Food Programme
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
USAID	United States Agency for International Development
CAM4ASB	Climate Adaptation and Mitigation Program for Aral Sea Basin
MSDSP	Mountain Societies Development Support Programme
YEC	Youth Ecological Centre
NGO	Non-Government Organisation
ACTED	Agency for Technical Cooperation and Development
CAREC	Central Asia Regional Economic Cooperation
GEF	Global Environment Facility
M&E	Monitoring and Evaluation
RBO	River Basin Organization
RBC	River Basin Councils
EbA	Ecosystem-based Adaptation
PES	Payment for Ecosystem Services
MIE	Multilateral Implementing Entity
IE	Implementing Partner
NPD	National Project Director
IP	Implementing Partner
OG	Overall governance
PS	Primary Stakeholder
ESP	Environmental and Social Principle

2. INTRODUCTION AND CONTEXT

The Republic of Tajikistan (hereafter Tajikistan) is the most climate-vulnerable country in Central Asia. Extreme rainfall events have become more frequent and intense, the rainfall season has shortened in many parts of the country, air temperatures have risen markedly, and glacial melting is accelerating[1]. As a result, hydro meteorological disasters such as droughts, floods, mudflows and landslides are more frequent and rates of soil erosion across the country are increasing. The socio-economic impacts of these changes are considerable: livelihoods, agricultural productivity, water availability and hydroelectricity production are all compromised[2]. Indeed, natural hazards, most of which are linked to climate change (e.g. droughts and landslides), result in annual losses equivalent to ~20% of the country's Gross Domestic Product (GDP)[3].

2.1. Project Context

The Water Sector Reform Programme of Tajikistan for 2016–2025 (Water Reform Programme)[4] delineates four river basins ***(Annex 1)*** according to hydrological boundaries. These four basins are the: i) section of the Syr Darya River that is located in Tajikistan; ii) section of the Pyanj River located in Tajikistan; iii) Vakhsh River Basin; and iv) the Kofirnighan River Basin[5]. By defining these river basins, the Water Reform Programme highlights the shift in the GoT towards improving management of these river systems away from using administrative boundaries. The programme also outlines the GoT's goal of promoting the implementation of integrated water resources management (IWRM) at a basin level. Of the four river basins identified by Tajikistan's Water Reform Programme, the Kofirnighan River Basin ***(Annex 2***) is one that currently does not have focused efforts being made towards IWRM[6]. Compared to the other three basins, KRB has received the fewest interventions from government and donors to date. The KRB is topographically and climatically very variable and is highly vulnerable to extreme climate events such as GLOFs, floods, mudflows and landslides[7]. It is also the smallest of Tajikistan's four basins and is fully encompassed within Tajikistan (i.e. is no transboundary). A Kofirnighan River Basin Management Plan (KRBMP) has been developed for the basin. Although this plan includes the measures for the improvement of water management, it does not integrate land and natural resources into the water management. Neither does it consider probabilistic impacts of climate change on the river basin hydrology and a broader catchment.

The proposed project focuses its activities within the Kofirnighan River Basin (KRB) as, of the four basins within Tajikistan: i) the KRB has received limited international support for the implementation of integrated catchment management; ii) a large number of communities within the basin are highly vulnerable to a wide range of climate risks; iii) the basin's variable topographic and climatic conditions are highly representative of the conditions in Tajikistan; and iv) there are no trans boundary disputes along the river[8].

Situated in the south-western and western parts of the country, the KRB occupies a total area of ~11,600 km^2, with the mountain catchment making up 8,070 km^2 of this (equating to ~70% of the total basin area)[9]. The basin is divided into two regions, namely the north and the central/south regions[10]. The Gissar Valley

[1] Third National Communication of the Republic of Tajikistan under the United Nations Framework Convention on Climate Change. 2014. Committee on Environmental Protection, State Administration for Hydrometeorology, Government of The Republic of Tajikistan
[2] World Bank (WB). 2013. Tajikistan: Overview of climate change activities.
[3] WB 2013 Tajikistan: Overview.
[4] Water Sector Reforms Programme of the Republic of Tajikistan for 2016–2025 (Water Reform Programme). 2015. Resolution of the Government of the Republic of Tajikistan. Unofficial translation.
[5] Water Reform Programme 2015
[6] Fergana Valley WRM 2018 KRBMP Unpublished.
[7] State Agency for Hydrometeorology (Hydromet). 2018. Assessment of Kofirnighan River Basin (KRB), natural disasters and needs. Unofficial document.
[8] reducing the project partners and stakeholders to within the country
[9] Tahirov IG & Kupayi GD. 1994. Water resources of Tajikistan of the Republic of Tajikistan. Dushanbe 1:181.
[10] Fergana Valley WRM 2018 KRBMP Unpublished.

encompasses the north region, which includes the city of Dushanbe, while the Kofirnighan and Beshkent valley depressions make up the south region. The Gissar Ridge forms the highland areas, extending for 250 km to elevations of ~4,500 masl and is home to 343 glaciers, covering a total area of 115 km^2.[11] The river of Kofirnighan, at ~387 km long, is one of the major contributing inflows of Tajikistan's largest river, the Amu Darya River[12]. It flows through different mountain ranges and zones within the basin including high mountains, intermediate foothills and low and flat zones. The basin's groundwater reserves are economically important and are used to irrigate crops (~98,000 ha) and pastures (~56,000 ha). Most of the irrigated land is in the arid southern sub-basin, while cultivated land in the northern sub-basin is largely rain-fed.

The mountain ranges and glaciers have a major influence on the air temperatures within the KRB. Temperature and precipitation gradients exist along the zones (mountainous, foothill, low), with temperatures increasing as one moves from the mountainous to the low-lying zones, and precipitation decreasing in this direction. In the mountainous areas of KRB, average temperatures range from 18°C in the summer months (hottest summer temperatures being ~35°C) to –8°C in the winter months (with cold air masses sometimes resulting in temperatures as low as –30°C). Intensely hot summer temperatures are typical for the south of KRB, which experiences mild winters compared with the north. Average temperatures in the southern areas of KRB range from ~31°C in the summer months (hottest summer temperatures being ~48°C) to ~2°C in winter (with temperatures dropping to as low as -28°C) [13].

In terms of political divisions, the KRB is made up of 10 administrative districts, 4 cities including Dushanbe, 10 villages and 77 *jamoats* (rural self-governance bodies). As of January 2017, the total KRB population was 2.8 million people, with ~62% living in rural areas and ~38% in towns. Over the past 13 years, the KRB population has increased by 712,000 people (representing a ~34% total increase and an annual growth rate of 2.5%).

2.1.1. Current position of the project on present context.

Are the assumptions underpinning the project design all made explicit and are they still valid?

According to world climatologists, Tajikistan is one of the most vulnerable countries in the whole region of Europe and Central Asia. Mountains cover 93% of Tajikistan's territory and only 7% of the land is flat. The population is more than 9 million people and according to the analysis, each inhabitant of Tajikistan has only 0.06 hectares of irrigated land. Tajikistan is very vulnerable to climate change, such as droughts, floods, landslides and so on.

It is estimated that by 2050 up to a third of the glaciers in Central Asia will completely disappear, which will significantly increase the risk of severe flooding from glacier lakes.

According to experts information, in the territory of the Republic of Tajikistan there is a general rise in temperature, and seems to be more drought and natural disasters. These changes have a major impact on Tajikistan's river basins, which in many cases can lead to disasters and significant economic and social damage to the population. On the other hand, the reduction in the area of glaciers, which are the main source of water supply for our rivers, could endanger the whole energy and agriculture sectors of Central Asia. Especially the waters of KRB are particularly vulnerable to these events, urgent measures for adaptation to climate change in this district are under the control of the Government, and the solution of these problems requires the joint work of government agencies, NGOs and citizens of the region.

As described above, the proposed project of Adaptation Fund (AF) "An integrated landscape approach to enhancing the climate resilience of small-scale farmers and pastoralists in Tajikistan" offers activities for the

11 Ibid.
12 Tahirov & Kupayi 1994 Water resources of Tajikistan.
13 Fergana Valley WRM 2018 KRBMP Unpublished.

KRB to improve strengthen ecosystem-based resource management can ensure the stability of the results in any situation. The comprehensive catchment management strategy that has been developed for this basin and is not difficult to implement at the district, community and village levels. During the meetings with relevant local authorities, the population and organizations, once again revealed that the Project target areas are poorly adapted to climate change and do not have a strong infrastructure for natural resource management in the KRB. The numbers of poor families in these districts are also not small, and the understanding of improving ecosystem-based adaptation and management practices is very low. It is expected that this kind of vulnerability will increase in the future. Therefore, the strategy, assumptions and activities proposed and planned by the Project are in line with the conceptual policy of the Government of Tajikistan are very important for increasing the capacity to adapt to climate change not only in the KRB but all across the country. That is why the population and the key stakeholders considered the Project targets, objectives and as the results they confirm its consent for their implementation with the signing of mutual agreements.

Is the project strategy adequate and fully supported by the (Government) stakeholders?

First of all, the main goals and objectives of the Project were discussed at regular meetings of the CEP under the Government of Tajikistan, and with this decision it was communicated to all partners and associates of the Program. During the meeting with the heads of districts, stakeholders, jamoats and village chairmen the following issues were discussed:

- Climate risk management in the KRB.
- Strengthen the capacity of stakeholders in the development of the FMS (basin action plan) and the implementation of integrated activities to ensure resilience to the upstream and downstream of the KRB.
- Strengthening inter-sectoral and comprehensive approaches to climate change in water, forest and pasture management and agricultural land management at the basin level.
- Landscape management measures to adapt based on ecosystem approaches.

These issues have been fully endorsed and agreed by the Program's partners.

The Project Implementation Team will also study and strengthen the intellectual capacity of appropriate Knowledge Management Platforms, such as SRM (Sustainable Pasture Management Network), Sustainable Land Management (CSM), Climate Management Network in Central Asia (CICC), and others and stick them in different areas of the program activities in the future.

During the meetings with various stakeholders of the government, civil society organizations (CSOs), universities, communities and local authority chairman's, it was noted that they fully support the proposed Strategy of the Project and will work together to achieve the proposed results. It should be noted that the proposed activities are in line with the current goals of the government, as well as other projects and programs, and with confidence we can say that stakeholders at the sub-basin level are ready to approve the proposed activities and contribute to the implementation of subprojects.

Are there alternative approaches and/or workarounds to reach the project objective?

The process of analysis and experience shows that such projects are rarely implemented in Tajikistan in this way. Improving adaptation measures to climate change through ecosystem approaches, first the environmental sustainability in the face of any changes, activities carried out in this way, first of all, promote the efficient use of water resources, land, pastures, forests and other natural resources, and play a key role in reducing poverty. Alternative methods can be used Integrated with best practices and individual Projects implemented in the field of environmental management and improvement of livelihood activities. In this regard, a database has already been compiled for alternative methods to improve environmental

management and reduce risks at the level of the Aral Sea basin. The use of activities can also help to achieve the Project's goal to reduce the impact of greenhouse gases such as green energy, solar energy, the use of solar pumps, etc.

Are there new threats/risks that may affect the relevance and viability of the project?

The current situation in the Republic of Tajikistan once again urges us to be more careful and flexible in the implementation of the Project. The spread of infectious diseases, global climate change, if one of the major risks to the implementation of the project activities, but there are also risks that we should not ignore.

- One of such risks is the daily exchange rate fluctuations, which sometimes pose risks in the course of some operations.
- Another one is the change of leaders of districts, jamoats and organizations and partners.
- Another problem is the low level of environmental knowledge of the rural population for the application of ecosystem methods in improving the environment.
- Recently, the prevalence of animal diseases and pests, and agricultural pests has increased significantly. This, can pose a risk to performance.

In many cases, the spread of infectious diseases is due to an increase in labor of migration. Migration itself is one of the risks that could create hinder the implementation of activities. In most cases, the lack of funds for various reasons delays the implementation of the subproject. Therefore, partners and the PIT are already planning precautionary measures to address these risks.

These are general issues regarding the risks that can be affect project but **Table 12** in the project document has been updated and include a revised checklist of Environmental and Social risks, the significance of the risk identified and the relevant assessments that may be required based on the outcomes of the risk screening process. (**Annex 3)/in PAD** (SOCIAL AND ENVIRONMENTAL SCREENING) proposes mitigation measures corresponding to the risks that have been identified.

Are there new opportunities and synergies the project could benefit from?

Yes, there are many opportunities. Experts and PIU, in consultation with project partners, have collected 12 databases on various completed and ongoing activities in the field of environmental management and climate change, and monitored the activities in the target area. Therefore, in the process of implementation of sub-projects, tracking of repetitive activities will be under the control of experts and stakeholders.

According to the series of meetings conducted by project Team potential synergies include interventions implemented or being implemented by:

1. Weather water climate services – installation of low-cost stations including methods of information delivery (CARITAS)
2. River basin management activities – HELVETAS
3. DRR and watershed action plans, EbA – Aga Khan Habitat, Helvetas, Acted
4. Payment Ecosystem Services – GIZ, Camptabiat
5. Knowledge Management platforms and Open Data Centers – SDC, GIZ

The project Team also meet with the World Bank team, which is developing the Sustainable Landscape Management and Welfare Improvement Project in Tajikistan (TRELLIS). The project will be implemented by the in partnership with the CEP. As TRELLIS has similar approach to the current project, meetings with the World Bank project development team are being conducted on a regular basis to avoid duplication and share lessons learned.

2.2. Solution and barrier

2.2.1. Solution.

The preferred solution would be for the small-scale farmers and pastoralists within the KRB of Tajikistan to become resilient to climate change impacts. This would be achieved by developing and then implementing a climate-resilient catchment management strategy for the KRB, which will enhance the provision of ecosystem services in the river basin.

Such a strategy would promote a wide range of new approaches, including: i) long-term planning at the river basin scale, informed by integrated catchment management principles; ii) explicit consideration of the trends, risks and impacts of

extreme climate events and their interactions in catchments of various scales iii) consideration of all landscapes (i.e. urban, pastoral, agricultural as well as conservation areas) within the KRB; iv) the use of ecosystem goods and services under climate change conditions to support climate-resilient livelihoods; v) ecosystem-based adaptation (EbA) interventions, including watershed rehabilitation and sustainable management of all natural resources; and vi) the development of

appropriate adaptation responses by communities and relevant public services for both sudden- and slow-onset climatic events.

2.2.2. Barrier 1. Lack of systematic production, collection and sharing of climate risk information.

A wide range of projects and programmes have been conducted in river basins across Tajikistan, which have assessed the impact of various environmental and socio-economical factors on the population. However, most of these initiatives have

not accounted for climate change and its associated risks, resulting in these risks not being included in basin-level planning and management. For example, a management plan is in development for the KRB, but does not take an integrated approach to landscape planning and will not include climate risk projections.

The relevant climate information authority in Tajikistan, Hydromet, also lacks the necessary capacity to measure and collect climate risk information. In the KRB, three of the major hydrological stations202 have been identified as having poor performance, with equipment that is poorly maintained. This limitation has resulted in communities in the KRB not receiving advanced climate risk information on events such as flooding or landslides. An additional limitation is that all information and data being generated on climate and climate change in the country are not currently being housed in a well-managed and accessible information centre. Although centres for storing such information do exist in Tajikistan in the form of hubs or platforms, the relevant institutions do not benefit from the services provided by such centres. Relevant centres include the Open Centre being hosted by the Department of Geology and an information centre being established by the Ministry of Water and Energy. These centres are still in a nascent stage, with a limited capacity for information production, management and sharing. As a result, information on climate risks is not available on a central, readily accessible platform.

With the limited sharing of existing knowledge within the country on climate change risks, there is a significant gap in available knowledge on appropriate adaptation interventions. Specifically, rural Tajik communities have limited or no access to information on climate risks and appropriate adaptation practices.

The proposed project will overcome the above barrier in the KRB by: i) strengthening the collection of climate data through rehabilitating identified hydro meteorological stations in the KRB (Outcome 1); and ii) supporting existing knowledge management platforms to improve the systematic collation and sharing of climate knowledge (Outcome 3).

2.2.3. Barrier 2. Limited institutional capacity to include climate change adaptation into river basin management plans and policies, and to apply catchment management approaches to climate risk reduction.

Integrated land and water resource management is particularly relevant under climate change conditions and the associated increase in climate risks. This is because upstream land uses, such as agriculture, affect downstream risks, such as flooding. These interactions between land use and climate risks are complex and not well understood in Tajikistan. This is particularly true for a topographically diverse basin such as the KRB, where both steep mountainous regions and arid lowlands occur. The basin is affected by multiple climate risks but lacks an integrated catchment management approach for the management of such risks. While a river basin management plan is currently being developed for the KRB under the Water Reform Programme, this management plan will focus on water resources management. Integrated management of land and water resources as well as multi-hazard climate risk management will not be covered by the scope of proposed basin management plan. Consequently, the RBOs and RBCs that will be established in the northern and southern KRB sub-basins will not be capacitated to plan for the implementation of integrated climate risk reduction practices at the basin, sub-basin and watershed scales. Outcome 1 of the proposed project will overcome this barrier by developing an integrated catchment management strategy for the KRB that will propose measures for adopting a climate risk-management approach. Furthermore, existing coordination and training measures will be strengthened to develop the institutional capacity for integrated catchment management. As a result of the outputs under Outcome 1, the GoT will be capacitated to implement specific climateresilient catchment management throughout the country, beyond the target basin.

2.2.4. Barrier 3. Limited technical capacity of local government to implement adaptation activities that promote climate resilience within local communities.

Local government authorities in the KRB currently lack the knowledge and expertise to monitor extreme climate events, transmit early warning information and take adequate and appropriate response measures to manage climate risks. This limitation results in local KRB communities receiving minimal training and information on climate change adaptation. In particular, public services from local government that provide climate advisories, agricultural extension services and
livestock health services do not take climate risks into account. The end result is that local communities: i) are not being regularly updated on local, regional nor international best practices for reducing the impacts of climate change; and ii) are
not being made aware of climate risks in time to take adequate action.

The proposed project will overcome this barrier by: i) strengthening the capacity of local government to implement adaptation activities (Outcome 1); and ii) strengthening local communities' knowledge and capacity to implement relevant
adaptation measures through local demonstrations.

2.2.5. Barrier 4. Limited knowledge among communities of livelihood benefits from implementing climate risk reduction and EbA measures.

Farmers and pastoralists in Tajikistan have had limited exposure to EbA and its benefits for reducing the impacts of climate change as well as improving livelihoods. This is particularly true for communities in the KRB, where there have been limited climate change projects and initiatives. Consequently, KRB rural community members do not have the technical capacity to implement EbA interventions and are also not incentivised to do so. Because of this limitation in climate change projects and initiatives within the KRB, communities have not been exposed to demonstration plots that showcase the benefits of EbA activities for

improving climate resilience. It is also unlikely that rural community members in KRB will autonomously implement EbA interventions because farming practices in the country have shown limited innovation since the end of the Soviet era. Community knowledge on EbA will be developed through on-the-ground implementations of EbA in degraded watersheds throughout the KRB. Knowledge sharing will be facilitated through Farmer Field Schools (FFS), where community members will have the opportunity to learn local best practices in a locally appropriate manner. Communities will also be engaged through participatory land-use planning to develop Watershed Action Plans (WAPs). These WAPs will guide the systematic implementation of EbA interventions to reduce the vulnerability of rural communities in the KRB.

3. OVERVIEW OF THE PROJECT

To achieve its objective of enhancing the climate resilience of small-scale farmers and pastoralists in Tajikistan, the proposed project focuses on strengthening the integrated management of the KRB and implementing concrete on-the-ground EbA interventions. The three components of the project are: i) integrated catchment management to build climate resilience; ii) Ecosystem-based Adaptation, including Climate-smart Agriculture and Sustainable Land Management, in agro-ecological landscapes; and ii) knowledge management on building climate resilience through integrated catchment management and EbA in the Kofirnighan River Basin. The first component will strengthen the institutional and technical capacity of government and local communities to manage climate risks. The second component will support local communities to implement interventions that reduce climate risks by enhancing the ecosystem functionality of degraded watersheds. The last component will compile and disseminate lessons learned for future national and regional upscaling and replication.

Capacity building for EbA, SLM and CSA at the Raion (district) and Jamoat (sub-district) levels will improve planning and coordination by government decision-makers and local communities for managing the country's ecosystems. Improved ecosystem management will reduce the risks posed by land degradation. Furthermore, such activities will also increase resilience to climate change. The strengthened enabling environment brought about by the project outputs will: i) improve the governance of natural resources at the Raion and Jamoat levels; ii) enhance support services and enable participatory, local-level planning; and iii) improve decision-making for implementing EbA interventions across the country.

To achieve this objective, there are three proposed project outcomes listed below:

3.1.Catchment management strategy to manage climate risks operationalised at raion (district) and jamoat (sub-district) levels in the Kofirnighan River Basin:

1.1. Multi-hazard climate risk models developed for vulnerable watersheds in the KRB.

1.1.1. Conduct a gap analysis on existing risk information in the Kofirnighan River Basin

1.2. Providing support for upgrading automated weather stations in KRB watersheds

1.2.1. Provide technical support for the modernisation of automated weather stations in the most vulnerable districts of the KRB.

1.2.2. Collect and collate data from improved automated weather stations.

1.2.3. Use collected data to inform climate risk information and adaptation advisories for agro-ecological extension service providers.

1.3. Integrated catchment management strategy developed for the KRB.

1.3.1. Develop an integrated catchment management strategy for the KRB to inform and facilitate cross-sectoral landscape planning.

1.3.2. Deliver a training programme on mainstreaming climate risks for integrated catchment management planning. Sub-activities are detailed below.

1.3.2.1. Training conducted to relevant Committee for Environmental Protection (CEP) representatives to integrate catchment management into implementation and monitoring activities for all projects going forward, both those with a focus on climate change and without.

1.3.2.2. Training provided to the personnel of the supported knowledge management centres – including the DoG Open Centre and to UCA – on assessing available climate risk information and ensuring it is all made available through the relevant portals/hubs.

1.3.2.3. Training provided to Raion-and Jamoat-level government departments on integrated catchment management and identifying climate risks that require such a management approach.

1.3.3. Provide training for selected communities on identification of EbA activities and implementation.

1.4. Strengthened coordination and training mechanisms integrated climate-resilient catchment management.

1.4.1. Strengthen existing training mechanisms at the Raion and Jamoat levels.

1.4.2. Provide training on integrating EbA into catchment management [link with Activity 2.1.2].

1.5. Payment for Ecosystem Services (PES) models to support the long-term financing of integrated catchment management strategy implementation.

1.5.1. Develop suitable PES models for the KRB.

3.2. An integrated approach to building climate resilience of agro-ecological landscapes operationalised at a village level:

2.1. Agro-ecological extension services supported at the Jamoat level to provide technical support for EbA implementation.

2.1.1. Support agro-ecological extension services by training existing service providers on EbA, climate-resilient agriculture and multi-hazard climate risk management.

2.1.2. Establish EbA demonstration plots in each of the target villages.

2.1.3. Conduct farmer field schools (FFs) in target villages making use of demonstration plots [Activity 2.1.2]

2.2. Watershed Action Plans (WAPs) developed that promote climate resilience and enhance economic productivity for target communities.

2.2.1. Conduct participatory mapping at the watershed level.

2.2.2. Develop Watershed Action Plans (WAPs) for vulnerable watersheds in the KRB.

2.3. EbA interventions implemented in target watersheds by local communities

2.3.1. Support local communities to implement priority EbA interventions.

2.3.2. Support local community members in developing Enterprise Plans (EPs) based on EbA interventions.

2.3.3. Monitor the impacts of EbA interventions.

3.3. Existing knowledge management platforms supported for integrated catchment management and EbA.

3.1.Existing knowledge management platforms supported for collating information on the planning, implementation and financing of EbA interventions

3.1.1. Support existing knowledge management platforms responsible for collating, analyzing and disseminating information on climate risks and suitable adaptation options.

3.1.2. Collect and collate data and information from automated weather stations, agroecological extension centers and international publications.

3.2 An impact evaluation framework established to enable effective adaptive management of EbA activities.

3.2.1. Establish an impact evaluation framework to enable the effective quantification of project benefits and to provide information for future planning and implementation of EbA interventions.

3.2.2. Obtain data and information through applying the framework will be disseminated via the knowledge platform(s)

4. PROGRESS DURING INCEPTION PHASE

Procurement

During the Inception phase covering the period October 2020 - May 2021 through the interaction procurement, the UNDP CEP Project completed more than 24 contracts which in terms of Finance totalled over 126280 USD. This represents about 90% of the total received first tranche amount for the Project activities. The acquisition includes purchasing of national experts' services including main assets as: vehicles, equipment and office arrangements which enable the Project particularly CEP to perform sectorial activities more efficiently and effectively. Note: besides, there will be numerous service contracts concluded throughout the duration of the Project in other intervention areas.

Project Steering Committee

The Project Steering Committee has been conducted only one time after the appointment of the representatives. And the main goal of the meeting was establishing Steering Committee, approving the work plan for 2021, Steering Committee members feedback about project activities and next project steps. The PSC will be convened by CEP and will serve as the project's coordination and decision-making body. The PSC meetings will be chaired by the NPD. It will meet according to necessity, but not less than once in 6 months, to review progress, approve work plans and approve major deliverables. The PSC is responsible for ensuring that the project remains on course to deliver products of the required quality to meet the outcomes defined. The PSC's role will include: (i) overseeing project implementation; (ii) approving all work plans and budgets, at the proposal of the Project Manager (PM), for submission to Istanbul Regional Hub; (iii) approving any major changes in plans or programmes; (iv) providing technical input and advice; (v) arbitrating any conflicts within the project and/or negotiating solutions between the project and any other stakeholders and (vi) overall evaluation.

*Minutes of the PSC Meeting in **(Annex 4).***

4.1. Results against Annual Work Plan

<table>
<tr><td colspan="3">Output 1.1. Multi-hazard climate risk models developed for vulnerable watersheds in the Kofirnighan River Basin.</td></tr>
<tr><td colspan="3">A gap analysis will be conducted based on all available information that covers the KRB, including baseline projects and the ongoing assessment being conducted as part of the KRBMP. It is expected that the outputs of the KRBMP will include watershed delineation for the KRB, as well as information on water scarcity at the watershed level. However, it is not expected to include information on risks related to water access and climate change impacts on basin hydrology. The gap analysis will inform the identification of watershed-level risks to be prioritised for the north and south sub-basins of the KRB.
Under this output, priority risks, which will include flooding and landslides, will be modelled at the watershed level for the north and south KRB sub-basins. For climate-specific risks – which also include floods, landslides and droughts – downscaled climate predictions will be included in the risk models. These models will inform the development of cohesive Multi-Hazard Climate Risk Models (MHCRMs) for the KRB.</td></tr>
<tr><td colspan="3">Activity 1.1.1. Conduct a gap analysis on existing risk information in the Kofirnighan River Basin</td></tr>
<tr><td>Responsible for the activity</td><td>Input</td><td>Time of implementation</td></tr>
<tr><td>Project Manager, Data collection consultants, Local Organization</td><td>Conduction of gap analysis</td><td>Quarter 1-2 / Year 1st</td></tr>
<tr><td colspan="3">The methodology for gap analysis was developed based on the project document. The methodology includes:
1. Collection of economical, social, hydrological, ecological and climate data from main stakeholders: Pasture Users, Water Users, local farmers and households, local public organizations. Data analysis for identification of capacity for project implementation;
2. Collection and analysis of statistical data (population, vulnerable households, women led households, labour migrants, livestock, jamoat's passports, implemented projects, pasture infrastructure, number of pasture and water users associations, land and water management and availability, risk of disasters and climate indicators impact on a basin level)
The process of data collection consists of desk study, qualitative research, conduction of survey with households and face to face interviews with local authorities and public organizations.
During the desk study the available information was collected from online resources. A series of brief meetings were conducted with local executive authorities of target areas. As the result of meetings, the project was presented to chairmen of target districts, preliminary data on social and economical status of districts was collected. The questionnaires for face to face and focus group interviews was drafted.
At the analysis of investment activity related to Climate Change the information on completed and ongoing projects in target areas</td></tr>
</table>

was collected. Mapping of public organizations and local associations for natural resources management was also conducted at target areas. As a result, 33 public organizations were identified.
Based on collected data the vulnerability criteria were drafted for six target districts. These criteria include social, economic, natural resources management and utilization and risks (climate, disasters).
Currently, the detailed analysis of target districts is ongoing. As a result of target districts detailed analysis district profiles and detailed report on districts will be available. These reports will be basis for development of Multi Hazard Climate Risk Models, Catchment Management Strategy, Watershed Action Plans and all further project activities.
At the moment, the data collection consultants led by project team completed the profile and detailed report for Varzob ***(ANNEX 5, 6),*** Vahdat. Faizobod district visits are ongoing.
Visits to target areas is crucial to collect reliable data and ensure sustainability of project interventions. Due to COVID-19 pandemic and caused restrictions these visits were limited. The project targeted to finalize visits to north part of KRB in August and conduct complex visit to the south of KRB and study Nosiri Khusrav, Shahritus and Kabodiyon.

Activity 1.1.2. Develop Multi-Hazard Climate Risk Models for the Kofirnighan River Basin.

Project Manager, International consultant for development of Multi-Hazard Climate Risk Models	**Development of MHCR Models**	**Quarter 3-4 / Year 1st**

The Multi-Hazard Climate Risk Models for the Kofirnighan River Basin to be developed based on data collection and analysis. Drafting of MHCRM for KRB is planned at the last quarter of 2021.

Output 1.2. Support provided for upgrading automated weather stations in Kofirnighan River Basin watersheds.

Currently, there are 11 weather stations across the KRB, which equates to an approximate density of one station per 1,000 km^2. This is regarded as an appropriate density[14,15] according to WMO guidelines[16]. Notwithstanding this, existing weather stations throughout Tajikistan face technical challenges, limited automation and problems regarding data quality. In addition, weather stations are being degraded because of insufficient resources and technical capacity to rehabilitate them following extreme climate events.
Under this output, the State Agency for Hydrometeorology (referred to hereafter as 'Hydromet') will be supported by providing capacity building to repair existing weather stations in the KRB. Support to Hydromet will also be provided in the form of equipment for the rehabilitation and upgrading of selected weather stations. This support will improve the quality and quantity of hydrometeorological data that is collected from the weather stations. Collected data will contribute to building an in-depth understanding of the climate change risks on different soil types and land units. The data will also be used to: i) refine the MHCRMs (Output 1.1); and ii) deliver climate risk information and adaptation advisories to agro-ecological extension service providers (Output 2.1). Weather data will be disseminated under Output 3.1.

Activity 1.2.1. Provide technical support for the modernization of automated weather stations in the most vulnerable districts of the Kofirnighan River Basin

Project experts	**Technical Support**	**Quarter 1-2 / Year 1st**

Three out of 11 weather stations located in the KRB were selected for modernization, namely: Tartki and Chinar stations located on the Kafirnigan river, and the Ramit station located on the Sardai Miyona river. It was identified that these three weather stations are not functioning properly, and their equipment is in poor condition. As a result, local communities in KRB do not receive information about weather, climate risks, adaptation options.
Another limitation is that all data and information on weather and climate change obtained in the country is not currently stored in a single, well-managed and accessible information center. Due to the limited sharing of existing knowledge on climate change risks in the country, there is a significant gap in the available information on appropriate adaptation measures. In particular, rural communities in Tajikistan have limited or no access to information on climate risks and appropriate adaptation methods.
As part of his activities, the meeting with a representative of the hydrology department and the automatic communication center of the Agency for Hydrometeorology under the CEP was conducted. During these meetings, the project team got acquainted with the equipment that is currently used at the selected stations to measure the required data. Also representatives of the Agency for Hydrometeorology presented software and methods of information dissemination.
After familiarization, trips were organized to three stations selected for maintenance.
At the Tartki station, a meeting was held with its chief Aliyev Safarali. To measure the depth and speed of the water, an automatic sensor is currently used. However, at the same time a special rail, manual GR-21 turntable and a cradle are being utilized.
The next meeting was held with the head of the Sardai Miyona (Romit) station Abdurahimzoda Orif. Station workers still use manual equipment to measure hydrometeorological data. It consists of a special rail, a GR-21 turntable and a cradle.
Unfortunately, one of the selected Chinar stations is not fully operational at the moment.

Activity 1.2.2. Collect and collate data from improved automated weather stations

14 Third National Communication 2014.
15 World Meteorological Organization (WMO). 2008. Guide to Meteorological Instruments and Methods of Observation. Seventh Edition, WMO-No. 8.
16 World Meteorological Organization (WMO). 2018. Country Profile Database: Tajikistan Regional Association II (Asia). Available at: https://www.wmo.int/cpdb/tajikistan [accessed 19.07.2018].

Project experts	Data collection	Quarter 3 / Year 1st
The data from the weather stations will be collected after their maintenance and conduction of relevant trainings.		
Activity 1.2.3. Use collected data to inform climate risk information and adaptation advisories for agro ecological extension service providers		
Project experts	**Shearing Data's**	**Quarter 4 / Year 1st**

According to the Agency for Hydrometeorology, the cycle of the process of collecting and disseminating information begins with receiving data on the server of the Automatic Communication Center of the Agency for Hydrometeorology under the CEP. After processing, the data is sent to the Meteorology Center and the Hydrology Department for further analysis.
Ready-made weather data is provided to stakeholders via SMS notification on a commercial and non-commercial basis.
Main means of disseminating information is SMS notification. The Agency for Hydrometeorology uses the services of CJSC "Indigo Tajikistan" trademark Tcell. However, given the specificity of the information (on risks, adaptation measures, etc.) that will be disseminated within the framework of the Project, there will be a need to use both SMS alerts and an easily accessible platform, preferably linked to the CEP and the Agency for Hydrometeorology.
Technical and marketing experts of mobile operators in Tajikistan were approached to organize dissemination of information via SMS alert service.
In particular, based on information from representatives of the company CJSC "Indigo Tajikistan", trademark Tcell, this company provides two types of SMS alert service:

- Sending SMS via SMPP (Short message peer-to-peer protocol), and
- Business SMS.

SMPP messaging is one of the most popular SMS messaging services. The advantages of this type of mailing are support for various text formats and long texts, two-way messaging, receiving a detailed report and expandability. However, to work with the SMPP protocol, it is necessary to have an always-on server and the corresponding software that is compatible with the provider's SMS gateway.
The Business SMS service allows you to transfer information from a web page to subscribers' mobile numbers by means of short messages. It has a simplified system for sending SMS via the web interface and makes it possible to create up to 50 sending groups without limiting the number of recipients.
At the meeting with next company CJSC "TT Mobile", trademark Megafon Tajikistan, two information dissemination services were presented: Target and SMS Inform.

- Benefits of the Target service:
  Effective comm
  unication channels will allow you to send the appropriate type of message (SMS, message in Viber, Push with forwarding to the site, voice IVR message).
  The mailing list will be received only by clients in the specified regions of your choice: Dushanbe, RRS, Khatlon, Sogd (Sughd region), GBAO
  Filtering recipients by socio-demographic parameters - gender, age
- In turn, SMS-Inform sends sms messages to the lists of mobile subscribers of any cellular operators in the Republic of Tajikistan. There are packages up to 100 thousand sms.

Remaining companies - Babylon-Mobile and O-mobile do not provide required mailing services.

Output 1.3. Integrated catchment management strategy developed for the Kofirnighan River Basin.

Under Output 1.3, an integrated catchment management strategy will be developed for the KRB. This strategy will outline how to implement integrated land and water resources management in watersheds throughout the KRB in order to manage climate risks. The strategy will address the linkages between upstream and downstream impacts at the river basin scale and outline approaches for identifying and managing such impacts at the watershed scale.
The integrated catchment management strategy will further inform the KRBMP that is currently being developed. RBOs and RBCs in the KRB will be closely involved in the development of the strategy. Staff from RBOs and RBCs, along with relevant staff from CEP, Agency for Land Reclamation and Irrigation (ALRI) and local government at *raion* and *jamoat* levels will be trained on the implementation of the strategy. Strategic approaches and objectives of the strategy will be operationalised at *raion* level through District Development Plans (DDPs).

Activity 1.3.1. Develop an integrated catchment management strategy for the Kofirnighan River Basin to inform and facilitate cross-sectorial landscape planning		
Project Experts	**Shearing Data's**	**Quarter 3-4 / Year 1st**

Development of the strategy to be started after completion of target area analysis.

Output 1.4. Strengthened coordination and training mechanisms for integrated climate-resilient catchment management.

Relevant co-ordination and training mechanisms will be strengthened for the implementation of integrated climate-resilient catchment management. Co-ordination structures to be strengthened include the RBOs and RBCs in the KRB. These entities are currently being established and, by project inception, will have been capacitated on water management at the catchment level. The proposed project will build their capacity on climate-resilient catchment management that includes land use as well as the management of water resources under climate change conditions. Training on cross-sectoral management will be provided to RBOs and RBCs in the KRB, as well as *raion* and *jamoat* level staff. This training will strengthen the existing coordination structures in the KRB to include integrated and climate-resilient management of land and water resources.
Opportunities for establishing/supporting existing local training mechanisms will be identified. Currently, no institutionalised or systematic training mechanisms exist for farmers and pastoralists.

Activity 1.4.1. Strengthen existing training mechanisms at the rayon and jamoat levels

Project experts	**Providing Trainings**	**Quarter 1-2 / Year 1st**

Methodology was developed to analyze learning mechanisms for implementation of an Integrated Catchment Management Strategy. The methodology includes:
1. Analysis of the existing training mechanism for public servants about basin water resources management and adaptation to climate change, as well as the ecosystem approach and the climate risk modelling:
a) conduct an analysis of existing practices and training programs conducted, including the developed training modules
b) consultations with key persons on training programs and identification of trainers;
2. Development of ToT modules and conduction of ToT (requires additional analysis by approaches, including gender and thematic);
3. Planning, organization and conduction of trainings for target groups in districts and jamoats;
4. Monitoring and analysis of conducted trainings, including ToT participants;
5. Establishment of training centers in the field;
6. In all training programs, 30% of the participants shall be women.
According to the planned activities, meetings were conducted with representatives of the target districts of the Project. During the meetings it was identified that currently there is no permanent training mechanism for watershed management.
Baseline data was collected from Varzob and Vahdat districts. Institutions and organizations for conduction of trainings will be identified once detailed analysis of target districts is completed. The next step is development of ToT modules. This includes planning, organizing and conduction of trainings for target groups in districts.
A mechanism for monitoring and evaluation of the conducted trainings will be developed.

Part 1 / Activity 1.4.2. Provide training on integrating EbA into catchment management.

Project experts	**Providing Trainings**	**Quarter 3-4 / Year 1st**

Trainings to be conducted once the training mechanism will be strengthened.

Output 2.2 Watershed Action Plans developed that promote climate resilience and enhance economic productivity for target communities.

Under this output, climate risk information will inform the development of fine-scale Watershed Action Plans (WAPs). These WAPs will assist local government and communities in ensuring that all identified EbA measures are carried out in an efficient and effective manner. The WAPs will include detailed budgets that will assist in determining the extent to which EbA measures can be implemented.
WAPs will be developed through a participatory process with communities from target villages in Vahdat, Varzob, Faizobod, Nosiri Khusrav, Shaartuz and Kabodiyon Districts. Such participatory processes will be conducted by holding regular consultation meetings in the villages with local government, PUUs and other relevant organisations. Through this output, the appropriate EbA measures in each watershed will also be shortlisted for future implementation.

Activity 2.2.1. Conduct participatory mapping at the watershed level.

Project experts	**Providing Trainings**	**Quarter 1-2 / Year 1st**

Action plan for mapping of watershed level was developed including 17 different activities, including Monitoring and Evaluation. The plan for sub-component 2 for Basin Activities in the KRB was also approved in the following sections:

- General activities at the KRB level
- Measures to increase soil humus and soil fertility:
- Establishment of Farmer Field Schools (FFS)
- Development of Watershed Action Plans for each identified sub-basin

According to the Action Plan following data is planned to be collected to assess the watershed area:

- Assessment of social participation - community perception, community risk rating
- Demographic assessment
- Map of administrative boundaries and location of residential areas
- Mapping of catchment areas and groundwater
- Compilation of geomorphology and assessment of plant degradation trends
- Hydrological profiling - location and description of rivers, lakes and springs that contribute to the basin
- Groundwater basins, impact of flow to downstream habitats
- Geological and soil profile - types and sedimentary processes
- Botanical profile
- Map of degradation zones and green zones in the watershed
- Cataloging existing and planned infrastructure, both in urban and rural areas
- Mapping of dangerous and active historical areas
- Zoning of high-impact areas and high frequency of incidents / identification of high-risk areas
- Land use mapping and land cover mapping
- Assessment of livelihoods - agricultural production, non-farm production, forestry, and pasture production

This data is being collected jointly with the data collection team of the Project.

Part 1 / Activity 2.2.2. Develop Watershed Action Plans (WAPs) for vulnerable watersheds in the Kofirnighan River Basin

Project experts	**Providing Trainings**	**Quarter 3-4/ Year 1st**

WAP development and training process will be started once Watershed mapping is completed.

Output 3.1. Existing knowledge management platforms supported for collating information on the planning, implementation and financing of EbA interventions.

Currently, several knowledge management platforms and hubs exist within Tajikistan as a result of previous and on-going development projects. Because of this, a network already exists for the housing, viewing and transfer of new information. Such institutions include the University of Central Asia (UCA) and the Open Centre under the Department of Geology (DoG). These institutions are mandated with the responsibility of collating, analysing and disseminating information on climate risks and suitable adaptation options. By providing support through gender-disaggregated training and information transfer, this output will promote the sustainability of these platforms.

Part 1 Activity 3.1.1. Support existing knowledge management platforms responsible for collating, analyzing and disseminating information on climate risks and suitable adaptation options.
Activity 3.1.2. Collect and collate data and information from automated weather stations, agro ecological extension centers and international publications

Project experts	**Providing Trainings**	**Quarter 3-4 / Year 1st**

Currently, there are several knowledge management platforms and centers in Tajikistan that have been established in the framework of previous and ongoing projects. Therefore, a network that provides storage, viewing and transmission of new information already exists. Such institutions include the University of Central Asia and the Open Center under the Geology Office. The responsibilities of these institutions are to compile, analyze and disseminate information on climate risks and appropriate adaptation options.

As a result of K&M platforms mapping, following relevant knowledge management platforms were identified:

- https://slmtj.net/ - SLMTJ Network is a voluntary association of representatives of various organizations, government, scientific and educational institutions, created to promote sustainable land management in the Republic of Tajikistan.
  The online platform was created within the framework of the project on sustainable land use and livelihoods in rural areas (ELMARL), which was implemented by the Committee on Environmental Protection under the Government of the Republic of Tajikistan with the support of the World Bank and the GEF.
- http://ca-climate.org/cacip.php - CACIP is the Central Asia Climate Information Platform. Its main purpose is to assist stakeholders in accessing, analyzing, and visualizing data to support and raise awareness, assessment and decision-making.
  Development of platform is financed by the World Bank within the framework of the "Program for Adaptation and Mitigation of Climate Change for the Aral Sea Basin" (CAMP4ASB), which is implemented by EC IFAS and the Regional Environmental Center for Central Asia (CAREC). CACIP covers five Central Asian countries: Kazakhstan, Kyrgyzstan, Turkmenistan, Tajikistan and Uzbekistan. It provides a regional overview as well as country-specific information.

Meetings were conducted with the CEP Environmental Information Center, as well as the Monitoring and Environmental and International departments. The CEP representatives noted the importance of the Committee as a responsible body in the field of climate and natural resources. Given the current needs of stakeholders and users of weather and climate risk information, the CEP is planning to transform its website into a major knowledge dissemination platform.

At the moment, an automatic system for online monitoring of the reporting of all structural divisions of the CEP has been created. The monitoring system includes data on the state of natural resources, climatic risks and data on the state of weather conditions. The CEP platform is in the testing phase and should be integrated with the CEP website.

As per request of the Committee for Environmental Protection (CEP) it was identified that CEP website is a news website based on the free Word Press Content Management System (CMS) template. But at the moment in the building of the CEP there are two servers purchased within the framework of implemented projects. One of the servers is used to control the automatic online monitoring platform, but the second server is not used in any way. This high-capacity server was procured by UNDP Tajikistan and only 10% of server capacity is currently utilized.

Under this activity, further short term step is utilization of the technical capacity of the CEP server and its infrastructure to pilot support the Integrated Knowledge Management Platform initiative. This will allow for a wider coverage and support the initiative of the national partner for the implementation of the Project. Establish a stable platform that will connect all structural units of the CEP, it is recommended to update the CEP website based on CMS supporting database and catalog functions (Drupal, 1C Bitrix, Joomla).

In the long term, integrate formal level initiatives between the CEP and the owners of existing knowledge dissemination platforms and define specific information that will be disseminated among the target beneficiaries of the project and develop a specific format for providing data.

Currently the CEP official website was updated based on 1C Bitrix CMS which is supporting database and catalog functions (http://tajnature.tj/; http://khmz.tj). Separate virtual servers were developed within the server to place hosting for website, DNS platform, database and monitoring system for climate and environmental information to be received from all CEP subdivisions. This data is main source for generation of adaptation options, catchment management and DRR activities.

Activity 3.2.1. Establish an impact evaluation framework to enable the effective quantification of project benefits and to provide information for future planning and implementation of EbA interventions - Status		
Project experts	**Providing Trainings**	**Quarter 1-3 / Year 1st**
Recruitment process of international consultant for establishment of Impact Evaluation framework is ongoing.		

4.2. Inception period activities and visits

#	location/organization	date	purpose / results
	Varzob district/ Local Executive Authority	January 28, 2021	- Introduction of project outcomes; - Hands-on priorities/needs in government outlook related to project activities: (i) Pasture management (60% of the area - 49 000 ha out of 86400 ha - is allocated for pastures); (ii) Disaster risk reduction (frequent flooding and mudflows from Surkhdaria river); (iii) Building adaptation capacity of local farmers and pasture users; (iv) Development of proper pasture and water resources management system; - Discussion of draft questionnaire for data collection;

			- Agreement on memo on cooperation signature.
	Vahdat district/ Local Executive Authority	January 29, 2021	- Introduction of project outcomes - Hands-on priorities/needs in government outlook related to project activities: (i) Disaster risk reduction (frequent rockfalls, landslides and high level of precipitation); (ii) Introduction of suitable gardening tools and experiences (arable land 2.2% - 3528 ha); - Discussion of draft questionnaire for data collection; - Agreement on memo on cooperation signature.
	Faizobod district/ Local Executive Authority	February 1, 2021	- Introduction of project outcomes - Hands-on priorities/needs in government outlook related to project activities: (i) Potable and irrigation water supply; (ii) proper pasture management; (iii) Introduction of suitable gardening tools and experiences; - Discussion of draft questionnaire for data collection; - Agreement on memo on cooperation signature.
	Kubodiyon district/ Local Executive Authority	February 2, 2021	- Introduction of project outcomes - Hands-on priorities/needs in government outlook related to project activities: (i) Potable and irrigation water supply; (ii) Introduction of suitable gardening tools and experiences; - Discussion of draft questionnaire for data collection; - Agreement on memo on cooperation signature.
	Shahritus district/ Local Executive Authority	February 2, 2021	- Introduction of project outcomes - Hands-on priorities/needs in government outlook related to project activities: (i) Disaster risk reduction (frequent droughts and low level of precipitation); (ii) Introduction of suitable gardening tools and experiences; - Discussion of draft questionnaire for data collection; - Agreement on memo on cooperation signature.
	Nosiri Khusrav district/ Local Executive Authority	February 3, 2021	- Introduction of project outcomes - Hands-on priorities/needs in government outlook related to project activities: (i) Disaster risk reduction (droughts, land degradation and soil erosion, low level of precipitation); (ii) Introduction of suitable gardening tools and experiences; - Discussion of draft questionnaire for data collection; - Agreement on memo on cooperation signature.
1	Varzob district/Jamoats Ziddeh and Tagob	May 18, 2021	Meeting with the chairman of the khukumat of Varzob region, providing information on the progress of the project, informing about the goals and objectives of this study trip, meeting with the chairmen of jamoats: Ziddeh and Tagob, and getting to know the situation and visiting the field to get acquainted with existing problems, introductory meetings with aksakals and villagers.(The general goal of the mission was to familiarize the head of the Vahdat region with the progress of the project and preliminary acquaintance with the existing problems at the level of jamoats and villages. (i) acquaintance with the chairmen of the jamoats R.Ismoil, Karim Ismoil and Bozorboi Burunov familiarization with the problems in various sectors of the economy and risk reduction in order to increase the resilience of farmers and pasture users to climate change in the Vahdat region "; (ii) collection and preliminary determination of practical priorities and preliminary analysis of existing problems at the level of jamoats and villages. Collection of static data for various
2	Varzob district/Jamoats Luchob	May 19, 2021	
3	Varzob district/Jamoats Chorbogh and S Aini	May 20, 2021	
4	Vahdat district/ Jamoats Rajab Ismoil, Karim Ismoil, and Bozorboy Burunov	July 1, 2021	

5	Vahdat / Jamoats Chuyangaron and Simiganj	July 2, 2021	industries and sectors. According to the mission schedule, a team of project experts and a project manager visited the Vahdat region. Meetings were held with senior officials and heads of jamoats / heads of local executive authorities, chairmen of the mahalla and the population living in the area. The head of the environmental protection department also participated. The main problems with field outreach were preliminarily identified, a list of the main problems at the jamoat, village and mahalla levels was compiled in order to reduce risks and increase the resilience of farmers and pasture users to climate change. Priority problems at the village level have been pre-determined.
6	Vahdat / Jamoat Romit	July 5, 2021	
7	Vahdat district/Jamoats Abdullo Abduvosiev, Numon Roziq	July 6, 2021	
8	Vahdat district/ Jamoats Chorsu, Bahor	July 7, 2021	

4.3. Criteria's of selection target project sites *(ANNEX 7)*

During the inception phase designed a list of criteria's to select target jamoats and villages for the further project implementation:

Social: Population – male, female, women headed family, indigent, and so on

Economical: Land resources – irrigated, arable, pasture, haymaking, forest, plant, worn out. Livestock – cattle, small horned animal, donkey, pasture infrastructure, livestock health centers, and poultry with bee keeping.

Natural resource management (availability of necessary structure and councils) – livestock society, water users association, forestry, small farms, basin development councils, community commissions.

Climate change impacts risks: heavy rains, drought, avalanches, Landslides and mudflows, floods, low level precipitation, storms winds hand.

Vulnerability to adverse influences - lack of irrigation, freezing of plants in spring, diseases of plants and animals, heat pressure.

5. INCEPTION WORKSHOP *(Annex 8)*

The workshop was organized and coordinated by Committee for Environmental Protection (CEP) under the Government of RT, in collaboration UNDP main office in Tajikistan. The workshop brought together attendees from different government and nongovernment organizations to discuss, share experiences, identify needs, and formulate recommendations for future work on implementation of the project in Tajikistan.

The IPW was held in one of the beautiful places in Dushanbe Serena Hotel in March 17, 2021, that is one of the best offers a stunning collection of elegant and beautifully appointed meeting venues set within a masterpiece of Tajik architecture and contemporary design. Presently Serena hotel is one of Tajikistan's premiere event venues for cutting-edge international conferences, executive sessions, training seminars or product presentations.

Located on Rudaki Avenue 14 in the heart of the city, Dushanbe Serena Hotel is only a ten-minute drive from Dushanbe International Airport.

5.1. Objectives of the workshop

I. Regarding the Project Team – Clarification project to all audiences discuss and take ownership of the project.

II. To present project information on the different components and outcomes, presentation of the partners involved, potential collaboration with other and international initiatives.

III. Obtaining stakeholders feedbacks and suggestions on the project design, objectives and outcomes, process of implementation and finally their proposals to each project component. The report of the IW is attached

6. INSTITUTIONAL SETUP AND ORGANIZATION

6.1. Implementing entity

The **Committee for Environmental Protection (CEP)** under the Government of the Republic of Tajikistan is the government institution responsible for the implementation of the project and will act as the Executing Agency (EA). The Ministry of Agriculture, Ministry of Energy and Water Resources, Agency for Land Reclamation and Irrigation along with other relevant national entities will act as project partners and will become part of Project Steering Committee.

The Committee for Environmental Protection will be responsible for executing this five-year project with the support of the UNDP under UNDP's National Implementation Modality (NIM). At the request of the Government of Tajikistan, UNDP is the Multilateral Implementing Entity (MIE). The project is nationally implemented (NIM), in line with the Standard Basic Assistance Agreement (SBAA, 1993) and the UN Development Assistance Framework (UNDAF) 2016-2020 between the UN and the Government of Tajikistan, as well as Country Programme Document 2016-2020 between UNDP and the Government of Tajikistan.

As a Multilateral Implementing Entity, **UNDP** is responsible for providing a number of key general management and specialized technical support services. These services are provided through UNDP's global network of country, regional and headquarters offices and units and include assistance in: project formulation and appraisal; determination of execution modality and local capacity assessment; briefing and de-briefing of staff and consultants; general oversight and monitoring, including participation in reviews; receipt, allocation and reporting to the donor of financial resources; thematic and technical backstopping; provision of systems, IT infrastructure, branding, and knowledge transfer; research and development; participation in policy negotiations; policy advisory services; programme identification and development; identifying, accessing, combining and sequencing financing; troubleshooting; identification and consolidation of learning; and training and capacity building.

Project Steering Committee (PSC) will be convened by CEP and will serve as the project's coordination and decisionmaking body. The PSC meetings will be chaired by the NPD. It will meet according to necessity, but not less than once in 6 months, to review progress, approve work plans and approve major deliverables. The PSC is responsible for ensuring that the project remains on course to deliver products of the required quality to meet the outcomes defined. The PSC's role will include: (i) overseeing project implementation; (ii) approving all work plans and budgets, at the proposal of the Project Manager (PM), for submission to Istanbul Regional Hub; (iii) approving any major changes in plans or programmes; (iv) providing technical input and advice; (v) arbitrating any conflicts within the project and/or negotiating solutions between the project and any other stakeholders and (vi) overall evaluation.

Project Assurance: UNDP Tajikistan will support project implementation by assisting in monitoring project budgets and expenditures, recruiting and contracting project personnel and consultant services, subcontracting and procuring equipment. UNDP Tajikistan will also monitor the project implementation and achievement of the project outcomes/outputs and ensure the efficient use of donor funds through an assigned UNDP Team Leader. UNDP will act as the Senior Supplier and Project Assurance. In this role, UNDP will also monitor project performance in relation to UNDP's Social and Environmental Safeguards Policy (SESP) as well as the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

National Project Director (NPD): The NPD will be a member of CEP, assigned to the project for its period of duration. The NPD'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.

6.2. Roles and responsibilities

№	Stakeholder/ Project Staff	Major Role	Type
	UNDP	Project formulation and appraisal; determination of execution modality and local capacity assessment; briefing and de-briefing of staff and consultants; general oversight and monitoring, including participation in reviews; receipt, allocation and reporting to the donor of financial resources; thematic and technical backstopping; provision of systems, IT infrastructure, branding, and knowledge transfer; research and development; participation in policy negotiations; policy advisory services; programme identification and development; identifying, accessing, combining and sequencing financing; troubleshooting; identification and consolidation of learning; and training and capacity building. UNDP's responsibility will also include: the preparation and implementation of work plans and annual audit plans; preparation and operation of budgets and budget revisions; disbursement and administration of funds; recruitment of national and international consultants and personnel; financial and progress reporting; and monitoring and evaluation. UNDP will retain ultimate accountability for the effective implementation of the project. **UNDP** Tajikistan will support project implementation by assisting in monitoring project budgets and expenditures, recruiting and contracting project personnel and consultant services, subcontracting and procuring equipment. UNDP Tajikistan will also monitor the project implementation and achievement of the project outcomes/outputs and ensure the efficient use of donor funds through an assigned UNDP Team Leader. UNDP will act as the Senior Supplier and Project Assurance. In this role, UNDP will also monitor project performance in relation to UNDP's Social and Environmental Safeguards Policy (SESP) as well as the Environmental and Social Policy and Gender Policy of the Adaptation Fund	MIE
	Committee for Environmental Protection (CEP) under the Government of the Republic of Tajikistan	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.	IE
	Project Steering Committee (PSC): Ministry of Agriculture, Ministry of Energy and Water Resources (MEWR), Agency for Land Reclamation and Irrigation along with other relevant national entities will act as project partners and will become part of Project Steering Committee (PSC)	• 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-AF, 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-AF; • 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 performance report, including the quality assessment rating report; • Ensure commitment of human resources to support project implementation, arbitrating any issues within the project;	OG

		• 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 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.	
	Committee of Environmental Protection (CEP)	The CEP is the main specialised governmental body responsible for implementation of the state policy on environmental protection in Tajikistan. Responsibilities of the CEP include the following: • developing drafts of governmental policies, strategies and action plans for environmental protection as well as implementation; • drafts laws, by-laws and decisions for the protection of the environment; • performs monitoring of the implementation of laws, by-laws, state policies and measures on environmental protection; • oversees the implementation process of all environmental conventions where Tajikistan is a member; • acts as the GEF Focal Point; • acts as the GCF National Designated Authority; and • acts as the Adaptation Fund Focal Point.	PS
	State Agency on Hydrometeorology (Hydromet) of the CEP	The Hydromet is responsible for environment-, climate- and hydro-meteorological-related monitoring. It is the agency responsible to formulate and inform the GoT and local authorities on short-term weather forecasts. The scope of activities of the Hydromet are broad and include: • observation and data collection on hydro-, meteorological- and climate-related regimes in Tajikistan; • observation over the extreme weather events and other hydro meteorological disasters in the country; • archiving historic and present data and analyses of the patterns tendencies; and • serving as a National Focal Point under the UNFCCC and provides technical support and policy advice to the CEP for its implementation process; as well as representing the GoT in UNFCCC negotiations.	PS
	Ministry of Energy and Water Resources (MEWR)	The MEWR is tasked with the formulation and implementation of national energy- and water-related policies. Particular climate-related activities of the MEWR include: • the design, revision and regular update of national strategies for energy and water development; • drafting respective legal documents for the improvement and development of energy and water sector-based projects; • monitoring the implementation of National Development Programs and Action Plans on renewable energy sources; and • participating in the strategic development projects on hydropower plants construction.	PS
	Open Centre under the Department of Geology (DoG)	The Central Asian Countries Geoportal is an outcome of cooperation between Geological Survey of Finland and the national geo-institutions in Kazakhstan, Kyrgyzstan and Tajikistan. The geo-sector in Tajikistan is managed by the Head Department of Geology under the GoT as a public property to be the central organ of executive power, state policy management and coordination of work. This falls within the sector of: i) mineral exploration; ii) reproduction of mineral resources; and iii) provision of geological information about natural resources of the Republic of Tajikistan.[17,18] Representatives from the Open Centre will be involved in capacity building processes and all training workshops. They will be expected to work together with the UCA in managing all collected information to collate and disseminate it to the public.	PS
	University of Central Asia (UCA)	The UCA is an internationally chartered, not-for-profit secular institution. It was formed as a partnership between the governments of Kazakhstan, the Kyrgyz Republic and Tajikistan under the sponsorship of the Aga Khan Development Network (AKDN). Founded in 2000, its first campus opened in 2016 in Naryn, Kyrgyzstan, offering five-year undergraduate programmes in Computer Science (BSc) and Communications and Media (BA). In 2017 the Khorog Campus in Tajikistan was opened, offering five-year undergraduate programmes in Earth and Environmental Sciences (BSc) and Economics (BA).	PS

17 The Committee of Geology and Resources Exploitation, Ministry of Industry and New Technology of the Republic of Kazakhstan carries out of special executive and regulatory functions in the area of geological studies, rational and complex usage of natural resources and state administration of subsoil use. The State Agency of Geology and Mineral Resources of the Kyrgyz Republic is a central institution working under the government of Kyrgyzstan for collecting, storing and distributing of geo-scientific information and providing authorized policy to the legal exploitation of mineral resources.

18 Central Asian Counties: Geoportal. 2018. Available at: http://www.cac-geoportal.org/en/index.php/about-us [accessed 23.07.2018].

		The primary role of UCA will be the integration of all information and data made available through the project into education and courses going forward. UCA will also be expected to work with the DoG in collecting, collating and making information publicly accessible and available.	
	National Project Director (NPD)	The NPD will be a member of CEP, assigned to the project for its period of duration. The NPD'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.	CEP Rep's
	Project Manager (PM)	The PM will, with the support of the AFA and PA, manage the implementation of all activities, including: preparation/updates of work and budget plans, record keeping, accounting and reporting; drafting of terms of reference, technical specifications and other documents as necessary; identification, proposal of consultants, coordination and supervision of consultants and suppliers; organization of duty travel, seminars, public outreach activities and other events; and maintaining working contacts with partners at the central and local levels. The Project Manager will liaise and work closely with all partner institutions to link the project with complementary national programmes and initiatives. The PM will produce Annual Work and Procurement Plans (AWP&PP) The PM will further produce quarterly operational reports and Project Performance Reports (PPR). These reports will summarize the progress made versus the expected results, explain any significant variances, detail the necessary adjustments and be the main reporting mechanism for monitoring activities. The PM will be technically supported by contracted national and international service providers, based on need as determined by the PM and approved by the PSC, as needed. Recruitment of specialist services will be done by the PM, in accordance with UNDP's rules and regulations.	Project Staff
	Project Monitoring and Evaluation Officer / Project Analyst	Under the overall supervision and guidance of the Project Manager, the M&E Officer will have the responsibility for project monitoring and evaluation. The M&E Officer will work closely with the Communications Officer on knowledge management aspects of the project. Specific responsibilities will include: • Monitor project progress and participate in the production of progress reports ensuring that they meet the necessary reporting requirements and standards; • Ensure project's M&E meets the requirements of the Government, the UNDP Country Office, and the Adaptation Fund; develop project-specific M&E tools as necessary; • Oversee and ensure the implementation of the project's M&E plan, including periodic appraisal of the Project's Theory of Change and Results Framework with reference to actual and potential project progress and results; • Oversee/develop/coordinate the implementation of the stakeholder engagement plan; • Oversee and guide the design of surveys/ assessments commissioned for monitoring and evaluating project results; • Facilitate mid-term and terminal evaluations of the project; including management responses; • Facilitate annual reviews of the project and produce analytical reports from these annual reviews, including learning and other knowledge management products; • Support project site M&E and learning missions; • Visit project sites as and when required to appraise project progress on the ground and validate written progress reports.	Project Staff
	Procurement Assistant	Under the guidance and supervision of the Project Manager, Procurement Assistant will carry out the following tasks: • Assist to the Project Manager in designing the Procurement Action Plan for the project; • Contribute to design of the Requests for Quotations, Requests for Proposals, Invitation to Bids, including Terms of References for recruiting short- and long-term consultancies and for the project related activities; • Management of procurement processes, in full compliance with UNDP rules and procedures; • Maintenance of the procurement related documents; • Liaising with the selected vendor on procurement of solicited items; • Implement proper handover of procured equipment and services.	Project Staff
	Project Admin./Finance Assistant	• Under the guidance and supervision of the Project Manager, the Project Admin./Finance Assistant will have the following specific responsibilities: • Conduct, under close supervision of the Project Manager, project related procurement of goods and services, in accordance with UNDP rules and regulations; • 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 GoI financial rules and procedures;	Project Staff

		• 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.	
	Project Gender Officer (part-time, consultancy contract)	• Under the overall supervision and guidance of the Project Manager, the Gender Officer will have the responsibility for the implementation of the Gender Action Plan. The Gender Officer will work closely with the M&E Officer, Safeguards Officer and Communications Officers on related aspects of project implementation, reporting, monitoring, evaluation and communication. Specific responsibilities will include: • 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 officer and Safeguards Officer to ensure reporting, monitoring and evaluation fully address the gender issues of the project;	Project Staff
0	Project Safeguards Officer (consultancy contract, part-time)	Under the overall supervision and guidance of the Project Manager, the Environmental and Social Safeguards Officer will have the responsibility for the implementation of the environmental and social management plan/framework. The Safeguards Officer will work closely with the M&E Officer and Communications Officers on related aspects of project reporting, monitoring, evaluation and communication. Specific responsibilities will include: • Monitor progress in development/implementation of the project ESMP/ESMF ensuring that UNDPs SES policy is fully met, and the reporting requirements are fulfilled; • Oversee/develop/coordinate implementation of all safeguard related plans; • Ensure social and environmental grievances are managed effectively and transparently; • Review the SESP annually, and update and revise corresponding risk log; mitigation/management plans as necessary; • Ensure full disclosure with concerned stakeholders; • Ensure environmental and social risks are identified, avoided, mitigated and managed throughout project implementation; • Work with the M&E officer to ensure reporting, monitoring and evaluation fully address the safeguard issues of the project;	
1	Project Communications Officer (part-time, consultancy contract)	Under the overall supervision and guidance of the Project Manager, the Communications Officer will have the responsibility for leading knowledge management outputs in Component 4 and developing the project communications strategy at the project outset and coordinating its implementation across all project components. The Communications Officer will work closely with the M&E Officer on knowledge management aspects of the project. Specific responsibilities will include: • Develop a project communications strategy / plan, incorporate it with the annual work plans and update it annually in consultation with project stakeholders; coordinate its implementation • Coordinate the implementation of knowledge management outputs of the project; • Coordinate and oversee the implementation of public awareness activities across all project components; • Facilitate the design and maintenance of the project website/webpages and ensure it is up-to-date and dynamic; • Facilitate learning and sharing of knowledge and experiences relevant to the project;	

7. MONITORING AND EVALUATION

Monitoring framework - Further detailing of indicators took place to make the project work more operational and conducive to progress monitoring and evaluation. In this respect, several milestones (deliverables) of the project are defined, and indicators of results are set. The set of indicators is presented in the Monitoring and Evaluation Table, (***Annex 10)***

UNDP Tajikistan and CEP will be responsible for monitoring and evaluation (M&E) of the proposed project and for project output monitoring in line with the M&E policies and procedures. The M&E system will be governed by the following outlined principles:

- **Accountability**: ability of UNDP to be answerable to donors and to the beneficiaries through availability of specific, timely and relevant data.
- **Evidence-base**: readily available information to support the development of more appropriate and improved programmes in future.
- **Learning**: use of simplified and frequent reporting to support reflection, learning and sharing of good practices and solutions.
- **Transparency**: sharing of information with all of UNDP's stakeholders, including strategies, plans, budgets and reports to promote openness.

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

In addition to these mandatory UNDP and AF 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 AF monitoring and reporting requirements:

Inception Workshop and Report: A project inception workshop will be held within 60 days of project endorsement, with the aim to:

a. Familiarize key stakeholders with the detailed project strategy and discuss any changes that may have taken place in the overall context since the project idea was initially conceptualized that may influence its strategy and implementation.

b. Discuss the roles and responsibilities of the project team, including reporting lines, stakeholder engagement strategies and conflict resolution mechanisms.

c. Review the results framework and monitoring plan.

d. Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the AF OFP and other stakeholders in project-level M&E.

e. Update and review responsibilities for monitoring project strategies, including the risk log; SESP report, Social and Environmental Management Framework and other safeguard requirements; project grievance mechanisms; gender strategy; knowledge management strategy, and other relevant management strategies.

f. Review financial reporting procedures and budget monitoring and other mandatory requirements and agree on the arrangements for the annual audit.

g. Plan and schedule Project Board meetings and finalize the first-year annual work plan.

h. Formally launch the Project.

The project management team will produce the following deliverables for M&E throughout project implementation:

- An Issue Log shall be activated in ATLAS and updated by the PM to facilitate tracking and resolution of potential problems or requests for change.
- Based on the initial risk analysis submitted (see Annex 5[19]), a risk log shall be activated in ATLAS and regularly updated by reviewing the external environment that may affect project implementation.
- Based on information recorded in ATLAS, a Project Progress Report (PPR) shall be submitted by the PM to the PSC, using the standard report format.
- A project lesson learned log shall be activated and regularly updated to ensure ongoing learning and adaptation within the organisation, and to facilitate the preparation of the lessons learned report at the end of the project.
- A Monitoring Schedule Plan shall be activated in ATLAS and updated to track key management actions and events.
- Annual Review Report. An Annual Review Report shall be prepared by the Project Manager and shared with the PSC. As a minimum requirement, the Annual Review Report shall consist of the Atlas standard format for the PR covering the whole year with updated information for each above element of the PR as well as a summary of results achieved against pre-defined annual targets at the output level.
- Annual Project Review. Based on the above report, an annual project review shall be conducted during the fourth quarter of the year or soon after, to assess the performance of the project and appraise the Annual Work Plan (AWP) for the following year. In the last year, this review will be a final assessment. This review is driven by the PSC and may involve other stakeholders as required. It shall focus on the extent to which progress is being made towards outputs, and that these remain aligned to appropriate outcomes.
- Bi-annual project quality assurance. A project quality assessment shall be conducted every two years through the corporate Project Quality Assurance (QA) system. The project will be assessed against programming quality standards to identify project and weaknesses and to inform management decision making to improve the project.
- Knowledge management: 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 scientific, policy-based and/or any other networks as appropriate (e.g. by providing content, and/or enabling participation of stakeholders/beneficiaries)
- Together with UNDP, the PSC will carry out two independent external evaluations as follows:
- Mid-Term Evaluation (MTE). The MTE will be carried out in the 6th quarter of the programme implementation and will be independent and external. The evaluation will engage all programme stakeholders and will assess the extent to which progress is being made towards the outputs and their alignment with outcomes. The evaluation may propose mid-course corrective measures and may reassess the objectives and revise implementation strategy.
- Terminal Review (TR). The TR will be conducted at the conclusion of the programme. UNDP will commission a full external evaluation assessing the accomplishment of objectives.
- Final Report: The project's terminal AF PPR 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.

[19] Annex 4 includes the detailed Environmental and Social Management Framework (ESMF) for the project.

- Agreement on intellectual property rights and use of logo on the project's deliverables and disclosure of information: To accord proper acknowledgement to the AF for providing grant funding, the AF 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 AF will also accord proper acknowledgement to the AF. Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy and the AF policy on public involvement.

7. ESMF REQUIREMENTS AND PROCEDURES / *(ANNEX 11)*

7.1. Objectives and Requirement

The purpose of this section is to ensure that project activities, once fully defined, are screened for risks and appropriate assessment and management measures are adopted. In addition, it serves as a "commitment plan" listing the key assessments and management plans that will need to be undertaken and budgeted for. This includes plans mandated by the UNDP SES, where relevant.

The ESMF identifies potential social and environmental risks and impacts from project activities and outlines strategies and procedures for identifying risks and impacts from as yet fully defined project components and for managing those risks and minimising undesirable environmental and social impacts. Further, the ESMF identifies stakeholder engagement processes and a Grievance Redress Mechanism for stakeholders with concerns and/or complaints regarding the project.

The objective of ESMF is to identify environmental and social impacts and risks associated with the subprojects defined in target communities of Kofirnighan river basin. This will allow the project implementation teams (National Project Team, national and local authorities) to identify and implement appropriate risk mitigation measures. In addition, the ESMF aims to:

- Increase climate resilience and adaptive capacity of Kofirnighan river basin municipalities and target communities;
- Implement on the ground ecosystem-based adaptation measures for forest, land and water resources management in the targeted areas;
- Strengthen knowledge building, information management, and monitoring systems on climate change vulnerability and adaptive capacity;
- Promote sustainable livelihoods, health and wellbeing of target communities, and management practice in utilization of natural resources;
- Describe all monitoring procedures required to identify social and environmental impacts;
- Adopt the best practicable means available to prevent or minimize environmental and social impact; and
- Ensure compliance with all applicable laws, regulations and standards for the protection of environment.

7.2. Screening Procedures of the ESMF

At preparatory phase of the project identified activities the implementation of which will negativly affect ecosystem of the KRB. By this case the following sub-project or activities will be deemed ineligible for the ecosystems-based adaptation measures in
the Kofirnighan river basin if they:

- Involve significant conversion or degradation of natural habitats (forest ecosystems, pasturelands, etc);

- May cause measurable adverse impacts to critical natural habitats;
- Risk the introduction of alien and potentially invasive alien species;
- May negatively affect endangered species;
- Involve physical displacement of people;
- Do not comply with construction norms and standards;
- Purchase, application or storage of harmful pesticides or hazardous materials;
- Production or activities involving forced labor/ harmful child labor; and
- Production or trade in wood or other forestry products from unmanaged forests.

Proposed sub-projects to be funded will be selected based on the following performance criteria: (a) degree to which the sub-project addresses the adaptation needs identified in the KRB; (b) cost-effectiveness; (c) ease of implementation; and (d) innovativeness. These criteria will be updated and finalized during the project inception phase.

The project includes a number of sub-projects under Component 2 and their specific locations that remain to be fully defined and assessed. Based on developed Watershed Action Plans, specific locations (communities) for EbA measures will be selected and concrete activities from the list below will be prioritized. According to meetings with local district governments and beneficiaries at place most suitable EbA measures were proposed from their side. The Project team has thoroughly analysed the project target areas and proposals. As the result the initial list of EbA activities was updated and the Project team came up with following table of potential technologies.

No.	Description	Applicable area
1	Construction of 'protection' gabions along rivers to provide buffers during flash floods.	N,S
2	The introduction of water-saving irrigation techniques such as drip irrigation, dry farming, composting/mulching and making use of cover crops.	N, S
3	Rehabilitation/restoration of degraded forest ecosystems making use of *saxaul* species, as well as others.	N, S
4	Sustainable harvesting for livelihoods from existing 'healthy' forest ecosystems.	N
5	Establishing livestock exclusion zones for the growing of fodder crops such as Lucerne and sainfoin.	N, S
6	Establishing shelterbelts to reduce the deposition of wind-eroded sediment on crops and integrating bio-drainage measures to improve water infiltration.	N, S
7	Introducing indigenous and palatable grass seeds into degraded rangelands.	N, S
8	Introducing rotational grazing of livestock between pastures to assist with increasing field water absorption and decreasing water runoff.	N, S
9	Pasture management such as land-use planning and introducing improved management measures such as exclusion zones and rotational grazing of livestock.	N, S
10	Establishing joint forest management involving communities and local government.	N, S
11	Introducing intercropping and agroforestry, and in specific areas may include apiculture, i.e. beekeeping.	N, S
12	Introducing sustainable long-term community services such as renewable energy and energy-efficient stoves.	N, S
13	Setting up shelterbelts in areas frequently exposed to erosion.	S
14	Establishing commercial plantations making use of an array of indigenous fruit species in degraded lands.	S
15	Introducing organic mulching for farmers to use on croplands which promotes soil fertility as well as water-saving.	S
16	Diversifying crop use, including drought-tolerant and climate-resilient crops.	S
17	Establishing greenhouses for horticulture including local lemon, tomato and cucumber.	S
18	Establishing community woodlots in abandoned areas for fuelwood.	S

No.	Description	Applicable area
19	Providing additional and improving existing extension services provision which will include developing advisories for farmers.	S
20	Establishing on-farm water resource management.	S
21	Rehabilitating existing irrigation, drainage and pumping systems.	S
22	Introduction of intensive gardening	N
23	Building or rehabilitation of Kashars	N
24	Introduction of terracing	N
25	Planting hedges	N
26	Fencing using metal grid	N
27	Watering plants from plastic and clay vessels	N
28	Installation of hydraulic ram for pumping water	N
29	Collection and use of rainwater	N
30	The use of springs for irrigation of crops	N
31	Reservoir for collecting rainwater and water from springs	N
32	Solar irrigation technology	N
33	Vaccinations to improve the sustainability of crops	N,S
34	Pruning to improve garden productivity	N
35	Recycling organic waste with earthworms and beneficial microorganisms	N,S
36	Preparation and application of phyto pesticides	N,S
37	Using crop rotation to maintain soil productivity	S
38	Growing amaranth	S
39	Application of integrated plant protection methods	S
40	Growing pistachios in drought conditions	S
41	Using combined crops (Alfalfa with oats, sainfoin)	S
42	Cultivation and restoration of licorice crops	S
43	Improvement of saline lands (For floodplain lands)	S
44	Saline land leaching	S
45	Safflower growing	S
46	Growing Jerusalem artichoke	S

8. GRIEVANCE REDRESS MECHANISM *(ANNEX 9) full Guideline is attached with the report*

During the design, construction and implementation of any project, a person or group of people may perceive or experience potential harm, directly or indirectly due to the project activities. The grievances that may arise can be related to social issues such as eligibility criteria and entitlements, disruption of services, temporary or permanent loss of livelihoods and other social and cultural issues. Grievances may also be related to environmental issues such as excessive dust generation, damages to infrastructure due to construction related vibrations or transportation of raw material, noise, traffic congestions, decrease in quality or quantity of private/ public surface/ ground water resources during irrigation rehabilitation, damage to home gardens and agricultural lands, etc.

Should such a situation arise, there must be a mechanism through which affected parties can resolve such issues in a cordial manner with the project personnel in an efficient, unbiased, transparent, timely and cost-effective manner. To achieve this objective, a Grievance Redress Mechanism has been included in the ESMF for this project. The Grievance Redress Mechanism is designed to:

a. be a legitimate process that allows for trust to be built between stakeholder groups and assures stakeholders that their concerns will be assessed in a fair and transparent manner;

b. allow simple and streamlined access to the Grievance Redress Mechanism for all stakeholders and provide adequate assistance for those that may have faced barriers in the past to be able to raise their concerns;

c. provide clear and known procedures for each stage of the Grievance Redress Mechanism process, and provides clarity on the types of outcomes available to individuals and groups;

d. ensure equitable treatment to all concerned and aggrieved individuals and groups through a consistent, formal approach that, is fair, informed and respectful to a concern, complaints and/or grievances;

e. to provide a transparent approach, by keeping any aggrieved individual/group informed of the progress of their complaint, the information that was used when assessing their complaint and information about the mechanisms that will be used to address it; and

f. enable continuous learning and improvements to the Grievance Redress Mechanism. Through continued assessment, the learnings may reduce potential complaints and grievances.

The GRM will be gender- and age-inclusive and responsive and address potential access barriers to women, the elderly, the disabled, youth and other potentially marginalized groups as appropriate to the Project. The GRM will not impede access to judicial or administrative remedies as may be relevant or applicable and will be readily accessible to all stakeholders at no cost and without retribution. Information about the Grievance Redress Mechanism and how to make a complaint and/or grievance must be communicated during the stakeholder engagement process and placed at prominent places for the information of the key stakeholders. All complaints and/or grievances regarding social and environmental issues can be received either orally (to the field staff), by phone, in complaints box or in writing to the UNDP or the Contractor. A key part of the grievance redress mechanism is the requirement for the WHO/PMU and construction contractor to maintain a register of complaints and/or grievances received at the respective project site offices.

The following information will be recorded:

a. time, date and nature of enquiry, concern, complaints and/or grievances;

b. type of communication (e.g. telephone, letter, personal contact);

c. name, contact address and contact number;

d. response and review undertaken as a result of the enquiry, concern, complaints and/or grievances; and

e. actions taken and name of the person taking action.

In addition to the project-level and national grievance redress mechanisms, complainants have the option to access UNDP's Accountability Mechanism, with both compliance and grievance functions. The Social and Environmental Compliance Unit investigates allegations that UNDP's Standards, screening procedure or other UNDP social and environmental commitments are not being implemented adequately, and that harm may result to people or the environment. The Social and Environmental Compliance Unit is housed in the Office of Audit and Investigations, and managed by a Lead Compliance Officer. A compliance review is available to any community or individual with concerns about the impacts of a UNDP programme or project. The Social and Environmental Compliance Unit is mandated to independently and impartially investigate valid requests from locally impacted people, and to report its findings and recommendations publicly.

The Stakeholder Response Mechanism offers locally affected people an opportunity to work with other stakeholders to resolve concerns, complaints and/or grievances about the social and environmental impacts of a UNDP project. Stakeholder Response Mechanism is intended to supplement the proactive stakeholder engagement that is required of UNDP and its Implementing Partners throughout the project cycle.

Gender work plan				
Expected outcomes / intermediate results	**Final / intermediate result indicator**	**Target indicator**	**Sources of verification**	**Assumptions**

Communities and individuals may request a Stakeholder Response Mechanism process when they have used standard channels for project management and quality assurance, and are not satisfied with the response (in this case the project level grievance redress mechanism). When a valid Stakeholder Response Mechanism request is submitted, UNDP focal points at country, regional and headquarters levels will work with concerned stakeholders and Implementing Partners to address and resolve the concerns. Visit www.undp.org/secu-srm for more details. The relevant form is attached at the end of the ESMF Checklists.*(ANNEX VII)*

9. GENDER MAINSTREAMING

The project recognises the importance of gender equality, particularly equal rights, responsibilities, opportunities and access of women and youth in the climate change adaptation. Project activities include 50% proportionate gender consideration in all project interventions, with a specific focus on on-the-ground activities under Component 2 *(**At least 600 people (100 per district), of which at least 30% will be women, are implementing EbA interventions for climate risk management)*** Therefore, the project is designed to promote gender equity. Gender equality and women empowerment civil society organisations will be involved to support the project. This will ensure adherence of all project activities to the gender equality and women empowerment *(**At least 100 community members in each district (of which 30% are women) trained on identification of suitable EbA interventions (600 people in total under the output 1.3).*** Despite the inclusion of gender considerations in the design of the project, there remains the low risk that project interventions will not benefit men and women equally.

Designed project activities will be implemented so that all genders are: (a) able to participate fully and equitably, (b) receive comparable social and economic benefits, (c) do not suffer disproportionate adverse effects as per UNDP Gender Mainstreaming Strategy. A more detailed gender analysis will be undertaken in the inception phase of the project to assess divisions of labor and women's role and access to resources and to develop recommendations on how project will promote women's equality and empowerment, including participation in project decision-making, as outlined in the ESMF. For this purpose, based on a detailed gender analysis, and in consultation with target communities that have prioritized their sub-projects, a comprehensive Gender Action Plan will be developed that will state out requirements to ensure that SES are met. The requirements and measures will ensure that women receive an equitable share of benefits and that their status and interests are not marginalized. Participatory processes will include specially designed methodologies that enhance the participation of women and therefore enhance the inclusion of their views into the activities of the project, using existing mechanisms for representing women's views. For monitoring, disaggregated and measurable data related to gender equality and empowerment of women will be incorporated. Furthermore, when possible, measures and techniques that can have a positive impact by closing the gap of inequality between men and women will be promoted. *(More details will come in ANNEX VII).*

During the Inception Phase of the project the Project team developed following gender mainstreaming plan:

Component 1. Integrated catchment management to build climate resilience.	Number of employees trained to respond to impact of climate-related events (disaggregated by sex).	By the end of the project, at least 30 staff (of whom at least 30% will be women) have been trained in integrated watershed management. By the end of the project, at least 100 staff (of whom at least 30% will be women) have been trained in integrated watershed management.	• Registration lists of participants of training seminars • Seminar reports • Interviews of some representatives of the relevant ministries	The training workshops enhance the capacity of staff to integrate climate resilience into integrated watershed management.
Output 1.3. Integrated catchment management strategy developed for the Kofirnighan River Basin.	An Integrated catchment management strategy has been developed. Number of employees trained (disaggregated by gender). Number of community members trained (disaggregated by gender).	By the beginning of the 3rd year of the project, at least 30 staff members representing all target agencies (of which women will account for at least 30%) have been trained in integrated watershed management. By the end of the project, at least 100 staff from all target agencies (of which women will account for at least 30%)	• Reports on the progress of the project • Monitoring and evaluation reports by project sites • Reports of community consultations, training and surveys • Reports on field visits	The training workshops enhance the capacity of staff to integrate climate resilience into integrated watershed management. All communities located in the vicinity of the project sites have pledged to participate in project activities, apply / implement techniques and methods that increase resilience to climate change, and train other

		have been trained in integrated watershed management. At least 100 community members in each district (of which 30% will be women) trained in identifying suitable EPA activities (600 total).		officials / community members.
Component 2. Ecosystem-based Adaptation, including Climate smart Agriculture and Sustainable Land Management, in agro-ecological landscapes..	Number of people using climate change adaptation technologies (disaggregated by sex). The total number of men and women who have benefited from reduced vulnerability to climate change.	At least 600 people (100 in each district), of which at least 30% are women, are implementing EPA activities to manage the risk of climate change. At least 46,000 people in approximately 100 villages in 6 districts benefit from reduced vulnerability to climate change	• • Lists of project beneficiaries for each site • • Site visits • • Community surveys.	Community members continue to apply adaptation technologies after they have received training and the necessary equipment.
Output 2.1. Agro-ecological extension services supported at the jamoat level to provide technical support for EbA implementation.	Количество обученных поставщиков услуг по пропаганде знаний	Поддержка предоставлена, по крайней мере, 1 частному поставщику услуг по пропаганде в	• Годовые рабочие планы • Отчеты о проведении семинаров • Отчеты о мониторинге и оценке	Все сообщества расположенные поблизости от участков реализации проекта обязались участвовать в

		каждом из целевых районов БРК		мероприятиях проекта, применять/внедрять приемы и методы АЭП, повышающие устойчивость к изменению климата, и обучать других членов сообществ.
Output 2.2. Watershed Action Plans developed that promote climate resilience and enhance economic productivity for target communities.	Number of WAPs developed.	By the end of the project, at least 1 WAP has been developed for each of the 14 target jamoats.	• Annual work plans developed for WAP • Monitoring and evaluation reports	None of the jamoats in the project area have overlapping watersheds.
Output 2.3. EbA interventions implemented in target watersheds by local communities.	The number of hectares of land where EbA activities are carried out in the project plots in each district.	EbA activities are carried out on at least 250 hectares of land in each district (for a total of 1,500 hectares).	• Monitoring and evaluation reports by project sites • Community consultation / training reports and field site visit reports • GIS	All communities located in the vicinity of the project sites have committed to participate in project activities and use / implement techniques and methods that increase resilience to climate change.
Component 3. Knowledge management on building climate resilience through integrated catchment management and EbA in the Kofirnighan River Basin.	Project support strengthened the capacity of the knowledge management center	By the end of the project, the capacity of at least 1 knowledge management center has been strengthened.	• Reports and training materials • Monitoring and evaluation reports	Strengthening the capacity of existing knowledge management centers facilitates local knowledge sharing and awareness raising among local communities.

Output 3.1. Existing knowledge management platforms supported for collating information on the planning, implementation and financing of EbA interventions.	Provided support to existing knowledge management centers / platforms in Tajikistan that have information and data on KRB, in particular information on climate risks.	By the end of the project, the capacity of at least 1 knowledge management center has been strengthened.	• • Reports of meetings / seminars • • Reports of meetings within the forum	All representatives involved in knowledge hubs (government agencies, NGOs, resource users, etc.) are committed to developing, implementing and implementing interdisciplinary approaches to the use of EPA techniques that increase resilience to climate change, and integrated watershed management in particular. in KRB.
Output 3.2. An impact evaluation framework established to enable effective adaptive management of EbA activities.	Evaluation of EbA activities in target areas was carried out.	By the end of the project, an MOU will be developed containing a detailed description of the process for assessing the impact of the implemented EbA measures on communities.	• • Site visits • •Data collection • • Consultation with community members • • Analysis of data on the impact of EbA activities	Awareness of community members about EbA activities carried out in their communities and in the surrounding areas will increase. The use of the MOU will raise awareness of the benefits of EbA activities.

10. STAKEHOLDERS ENGAGEMENT

The Stakeholder Engagement Programme seeks to set the procedures for ensuring consultation and stakeholder engagement during assessment, development of action plans, and monitoring of social and

environmental impacts associated with specific project activities, including information disclosure requirements. The UNDP jointly with CEP and the MoEWR will develop and release project-related information to communities, organizations and municipalities where the project is implementing its activities. In order to do so, the project will make use of:

- Newspapers, local radio podcasts, and local television;
- Brochures, leaflets, non-technical summary documents and technical reports.

The project will ensure that women and other relevant groups such as the elderly, and the youth receive an equitable share of benefits and that their status and interests are not marginalized. Participatory processes will include specially designed methodologies that enhance the participation of women and these other groups; therefore, it is expected to enhance the inclusion of their views into the activities of the project, using existing mechanisms for representing their views.

The Stakeholder Engagement Programme will build on various activities and methods, including the promotion of participatory processes, joint decision-making, and partnerships undertaken with local communities, NGOs, and local governments. The project will support the operationalization and formalization of the KRB Platform, which is envisaged as a key multi-stakeholder coordination, consultations and information sharing mechanism involving national and municipal entities, as wells community based- and civil society organisations. The project will also support exchange visits, interagency collaboration, and training and capacity building initiatives. The stakeholder engagement activities will take place in different phases of the project and in specific locations of the KRB. Two major stakeholder engagement activities will be the inception and final workshops where various stakeholders will have the opportunity to participate and be informed about the project outcomes. The National Project Coordinator is responsible for carrying out the specific stakeholder engagement activities. These activities will be supported by the Project Management Unit (PMU); in case the PMU is not capable of undertaking the activities, technical assistance will be provided. Stakeholder engagement activities and required technical assistances will be funded by the project's budget as part of specific Outputs. The project team will develop and release updates on the project on a regular basis to provide interested stakeholders with information on project status.

Meaningful, effective and informed stakeholder engagement and participation will continue to be undertaken that will seek to build and maintain over time a constructive relationship with stakeholders, with the purpose of avoiding or mitigating any potential risks in a timely manner. The scale and frequency of the engagement will reflect the nature of the activity, the magnitude of potential risks and adverse impacts, and concerns raised by affected communities. Stakeholders will have access to relevant project information in order to understand potential project-related opportunities and risks and to engage in project design and implementation. Specifically, the following information will be made available:

- Stakeholder engagement plans and summary reports of stakeholder consultations,
- Social and environmental screening reports (SESP) with project documentation (30 days prior to approval),
- Draft social and environmental assessments, including any draft management plans (30 days prior to finalization),
- Final social and environmental assessments and associated management plans,
- Any required social and environmental monitoring reports.

This information is to be disclosed in a timely manner, in an accessible place, and in a form and language understandable to affected persons and other stakeholders. These elements of effective disclosure are briefly elaborated below:

- Timely disclosure: information on potential project-related social and environmental impacts and mitigation/management measures will be provided in advance of decision-making whenever

possible. In all cases, draft and final screenings, assessments and management plans must be disclosed and consulted on prior to implementation of activities that may give rise to potential adverse social and environmental impacts.

- Accessible information: Appropriate means of dissemination will need to be considered in consultation with stakeholders. This could include posting on websites, public meetings, local councils or organizations, newsprint, television and radio reporting, flyers, local displays, direct mail.
- Appropriate form and language: Information needs to be in a form and language that is readily understandable and tailored to the target stakeholder group.