

Readiness and Preparatory Support Proposal Template

Programme title:	Developing a National Adaptation Planning Process in Turkmenistan
Country:	Turkmenistan
National designated authority:	Ministry of Agriculture and Environmental Protection, Mr. Berdi Berdiyev
Implementing Institution:	United Nations Development Programme
Date of first submission:	18 October 2018
Date of current submission / version number	26 March 2021 V.05



How to complete this document?

- Please visit the [Empowering Countries](#) page of the GCF website to download the Readiness Guidebook and learn how to access funding under the GCF Readiness and Preparatory Support Programme.
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Note: Environmental and Social Safeguards and Gender

Throughout this document, when answering questions and providing details, please make sure to pay special attention to environmental, social and gender issues, particularly to the situation of vulnerable populations, including women and men. Please be specific about proposed actions to address these issues. Consult Annex IV of the Readiness Guidebook for more information.

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1. SUMMARY			
Country submitting the proposal	Country name:	Turkmenistan	
	Name of institution representing NDA or Focal Point:	Ministry of Agriculture and Environmental Protection (MAEP)	
	Name of contact person:	Mr. Berdi Berdiyev	
	Contact person's position:	Head of the Department for International Ecological Cooperation and Projects, MAEP	
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Date of initial submission	18 October 2018		
Last date of resubmission	23 December 2020	Version number	V.05
Which institution will implement the Readiness and Preparatory Support project?	<input type="checkbox"/> National designated authority <input type="checkbox"/> Accredited entity <input checked="" type="checkbox"/> Delivery partner		
	Name of institution:	United Nations Development Programme	
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Title of the Readiness support proposal	Developing a National Adaptation Planning Process in Turkmenistan		
Type of Readiness support sought	Please select the relevant GCF Readiness activity area below (click on the box):		
	<input type="checkbox"/> I. Country capacity for engagement with GCF <input type="checkbox"/> II. Country programming process <input type="checkbox"/> III. Direct access to climate finance <input type="checkbox"/> IV. Climate finance accessed <input checked="" type="checkbox"/> V. Formulation of national adaptation planning and/or other adaptation planning processes		

<p>Brief summary of the request</p>	<p>Turkmenistan is vulnerable to climate change due to the steady temperature rise and increasing water deficiency. While the changing climate is impacting the entire economy, the water sector that is suffering the most acutely.</p> <p>The Government of Turkmenistan seeks to strengthen its adaptive and resiliency capacities to climate change by integrating climate risks and adaptation measures into planning and budgeting processes via the development of a national adaptation process (NAP). Doing so will complement other key foundational measures including Turkmenistan’s Nationally Determined Contribution, the Third and the under-development Fourth National Communication, and a National Climate Change Strategy.</p> <p>The proposed project seeks to achieve the following outcomes:</p> <ul style="list-style-type: none"> • Outcome 1: An Institutional framework to implement the Paris Agreement established • Outcome 2: The evidence base for adaptation planning in the water sector strengthened • Outcome 3: The capacity for adaptation planning strengthened <p>This project is first focused on developing a national coordination mechanism and governance processes for conducting adaptation planning and measures. Secondly, the project focusses on strengthening the evidence base within the water sector so as to provide the information required for effective decision-making as it relates to adaptation planning. Lastly, the project will increase the capacity of those involved, directly and indirectly, in adaptation planning as within the water sector and adaptation planning in general. This includes those working in government entities as well as those working in civil society and the private sector.</p> <p>While the project focuses at a national level as it relates to governance (as planning is centrally controlled) there is a specialized sub-focus on the water sectors of the City of Ashgabat and the Province of Dashoguz. The water sector has been selected by the GoT as the priority issue to start the NAP process as it is both a key sector on its own, but also it a core contributing factor to other national priority sectors. While there is this initial focus on water, this project will conduct important foundational work needed to establish systems, processes and capabilities to build an effective NAP process.</p> <p>Furthermore, as Turkmenistan develops its capabilities and gains in adaptation planning, other sectors that will be added to NAP process include agriculture, health and urban areas (amongst others) and will be national in scope. How these other sectors will be integrated into the NAP process will be informed from the learnings incurred during this initial phase of work. Turkmenistan’s long-term vision is for a well-functioning and ongoing NAP process that includes all they key sectors/areas.</p> <p>The barriers to achieving the goals of the project outcomes and objective are: 1. An absence of an institutional coordination mechanism for adaption planning and implementing the Paris Agreement; 2. Insufficient information available for developing policies and plans to conduct effective adaptation planning and inform development planning as it relates to water resources; 3. Insufficient capacity of key institutions to conduct adaptation planning; 4. Private sector actors in the agriculture sector are not sufficiently informed about the risks of climate change nor the opportunities that adaptation.</p> <p>The Ministry of Agriculture and Environment Protection is the lead ministry of the project and the primary beneficiary. The City of Ashgabat municipality and Dashoguz regional government (Hackimlik) are secondary beneficiaries along with respective residents of these pilot areas. In addition, the State Committee for Water Management, which governs and manages all water related policies and issues across the country, is expected to be another secondary beneficiary of this project in the long-term.</p>		
<p>Total requested amount and currency</p>	<p>USD \$1,814,767</p>	<p>Anticipated duration</p>	<p>36 months</p>



Has the country received or is expecting to receive other Readiness and Preparatory Support funding allocations (including adaptation planning) from GCF or other doors?

- Yes
- No

The Central Asian Regional Environment Centre (CAREC) has received GCF funding from the Readiness and Preparatory Support funding in the amount of \$230K for the project titled “NDA Strengthening and Country Programming support for Turkmenistan and initiating a Regional Approach to Climate Action”. The project raises awareness and builds capacity of government agencies on developing a country programme and regional initiatives on climate change.

This proposed NAP project will complement those activities and enhance capacity of government by specifically working with relevant agencies directly involved with climate change-related issues and developing a national adaptation planning process. It is expected that at the end of both projects, Turkmenistan will have a sound and dynamic national climate change adaptation strategy and relevant action plan, based on comprehensive planning and with the involvement of all stakeholders at national, regional, sectoral and community levels.

2. BACKGROUND



Baseline

1. Turkmenistan has the harshest climate in Central Asia with the highest air temperatures and lowest levels of precipitation. In recent years, a sustained rise in air temperatures has been observed. Maximum temperatures are increasing, while minimum temperatures are decreasing. Furthermore, the variability of monthly precipitation levels has been increasing. Overall, the climate is trending towards more drought-like conditions with increasing occurrences of shock events such as flash flood runoffs, mud flows, intense rainfall events and intense heat waves.
2. Eighty percent of Turkmenistan's surface is comprised of the flat Karakum Desert with the remaining 20% mostly consisting of mountainous zones. Summers are long, hot, and dry, and winters are mild and dry. Annual precipitation ranges from only 80 mm in the northwest to 300 mm in the Kopet-Dag mountain range along the border with Iran. Along the Caspian coast, elevations are at or below sea level for as much as 150 kilometers inland. The northern part of the country, located in the Siberian anticyclone area, is characterized by severe and long winters with continuous snow cover and average annual temperatures fluctuating between 13°C – 16°C. The southern part of the country is characterized by mild winters with occasional snow cover and average yearly temperatures ranging between 18°C – 22°C.
3. Over the last 60 years, increasing temperatures have been observed and documented in the desert country of Turkmenistan as occurring at a faster pace than in many other parts of the world. The average air temperature has increased by almost 2°C between 1950 and 2010. Already extremely hot and dry, the country is projected to experience an increase in average annual air temperature by 2.21°C by 2040, with further warming of 5.35 °C by 2100. These increases in temperature add additional pressure on surface water availability which is a primary source of irrigation and drinking water.
4. All water basins in Turkmenistan are transboundary and originate from outside of the country. Amudarya river, the biggest water source, starts in the Pamir mountains in Tajikistan, crosses northern Afghanistan and enters Turkmenistan. This illustrates that besides the growing water deficit concern, the country has limited control over the water volumes it receives through transboundary sources. Furthermore, Dashoguz province is part of the "Aral Sea Basin Crisis Area", with highly salinized lands and poor-quality water. This subsequently impacts the socio-economic development of the area, in particular, the agricultural activities and human health.
5. Increases in temperatures will contribute to increased evaporation rates of the Amu-Darya River, the nation's main source of water, which is already suffering from high levels of off-take from Turkmenistan and neighboring countries.
6. Furthermore, hydro-meteorological modeling suggests there will be a steady decline in precipitation nationwide. In the next 30 years, the amount of precipitation will slightly decrease, however by 2050 precipitation is expected to fall dramatically, reducing by as much as 22% by 2100¹ from current rates. Expected precipitation decrease in the central Asia region will contribute to a reduction of the flow of the Amu-Darya River by 10-15% by 2050.
7. These two climate trends of reduced precipitation and increasing temperatures will be accompanied by an increase in the frequency and severity of disaster events caused by climate change (droughts, floods, and windstorms).

Development policies, strategies and plans

8. **Turkmenistan's National Program for Social and Economic Development 2011-2030** states that the overarching national development goal is to shift to a growth model based on innovation and sustainable development. The specific objectives are the continual and sustained development of all economic sectors, further integrating with the international community, improving the well-being of all citizens, increasing investments in human capital, enhancing the quality of public housing and utilities, and prudent use and conservation of natural resources. Key priorities include accelerating economic

¹Third National Communication: <http://www.un-gsp.org/sites/default/files/documents/tkmnc3.pdf>

diversification, increasing economic competitiveness, and improving infrastructure by modernizing the energy, transport, information technology, and agriculture sectors.

9. **Presidential Programme of Social and Economic Development of Turkmenistan, 2019-2025.** This program outlines Turkmenistan's social and economic development objectives for the next seven years and reflects the main principles, priority directions, required actions and expected outcomes. The primary objectives of this program are to continue the implementation of market reforms and transition to a market-led economy, economic diversification, improving human capital, and improving the living conditions of the population.
10. **National Action Plan on Gender Equality (2015–2020)** sets the country's strategy on achieving gender equality. Developed in partnership with the National Institute for Democracy and Human Rights and the UN Population Fund, the plan lays out 15 targets and 60 activities that include increasing women's competitiveness in labor markets, improving maternal and child health outcomes, and the creation of gender-responsive legislation as well as greater participation of women in social, political and professional life. This proposed project is aligned to and supports the National Action Plan on Gender Equality's goal of greater participation of women in professional life. The project is designed to ensure that there is strong representation of women in all aspects of the project. Also, by making sure that there is strong representation of women in the capacity development activities of Outcome 3 will result in women being better positioned and equipped to participate in professional life. More broadly, gender considerations are integrated into the design and implementation of the proposed project specifically providing opportunities for women to learn about and participate in climate resilience and adaptation planning and practices. The leading government/public entity dealing with women issues is Women's Union of Turkmenistan a public organization aiming to increase women's participation in the social, industrial and cultural life and providing them with social and professional support.

Policies, strategies and plans for addressing climate change

11. The GoT has developed several policies that define its broad strategic priorities to address climate change. Most of these policies, at least initially, have been largely focused on mitigation. However, in the last few years, the GoT has prioritized climate change adaptation as they recognize the need to integrate climate risks into policies and planning. As such, the GoT is working on the development of a ***Plan to Implement the Paris Agreement*** which will focus both on mitigation and adaptation. This plan will serve as a form of a national adaptation plan and implementation document of the Paris Agreement.
12. **Turkmenistan's Nationally Determined Contribution (NDC 2015)** offers both conditional and unconditional mitigation targets. The unconditional target was set so as the growth rate of greenhouse gas (GHG) emissions will not exceed the GDP growth rate between 2015 and 2030. The conditional target is that GHG emissions will not increase at all between 2015 and 2030 and was dependent on international support. The NDC identifies energy efficiency, sustainable natural gas usage, and developing alternative energy sources as pathways for meeting its mitigation targets. The NDC contains an adaptation component and specifically notes that the agriculture and water management sectors have a high level of vulnerability to climate change and require urgent adaptation action. Furthermore, the NDC estimated that adaptation investments in the water sector alone will cost USD 10.5 billion. However, though identified as a priority, the NDC does not go into detail as to specific adaptation goals or activities. Turkmenistan ratified the Paris Agreement in October 2016.
13. **The Third National Communication to the UNFCCC (2015)**² broadly outlines the expected climate-driven impacts for the country until 2100. The Third National Communication (TNC) presents and analyses various climate projections and provides detailed key sector-specific implications resulting from climate change. It notes that the biggest risk for socio-economic well-being are droughts which are driven by high air temperatures and water scarcity. The TNC sets out a broad range of adaptation measures to promote better water use and land management in the context of reduced water availability and increasing temperatures.
14. The TNC stressed the importance of preparing a detailed national action plan for adaptation. It also noted that the areas likely to be most affected by climate change are agriculture, water management, health, soil and land resources, ecosystems (flora and fauna) and forestry. Specific to the risk to the water sector the TNC notes the following adaptation measures that should be taken:
 - Transition to an Integrated Water Resources Management approach in planning;

² <http://www.un-gsp.org/sites/default/files/documents/tkmnc3.pdf>

- Optimization of agricultural production and distribution that balances the agricultural needs of the country while minimizing the use of water;
 - Implement measures that improve the coefficient of performance of irrigation systems;
 - Introduction of advanced irrigation systems and the improvement of existing systems;
 - Complex reconstruction of irrigated lands;
 - Implementation of measures for the reclamation of land;
 - Construction of new water reservoirs;
 - Breeding work on the cultivation of drought-resistant crops
- 15. The National Climate Change Strategy (NCCS) of 2012** laid out the policy framework for building climate resilience through adaptation and a low-emission economy through mitigation. The strategy reflected the most pressing issues at the time. However, reflecting the rapid environmental and natural resource changes in Turkmenistan's that had taken place since 2012, the NCCS was updated in 2019.
- 16.** The updated NCCS was developed to account for Turkmenistan's obligations resulting from the Paris Agreement and the UN 2030 Agenda for Sustainable Development. The updated strategy provides for the implementation of systemic measures to address climate change and aims to ensure sustainable development. It also sets the strategy for developing an effective and coordinated process of climate change adaptation of all priority sectors and developing effective mitigation measures that contribute to accelerating Turkmenistan's low-carbon development. The updated Strategy acknowledges that climate change is accelerating the challenges the country faces, especially those that require adaptation. It stresses the necessity to take appropriate activities for long-term planning to mitigate climate risks in vulnerable sectors. It also foresees developing adaptation measures to be reflected in long-term national strategies, plans and country development programs, designed to consider scenario planning methods. It also tables the need to begin preparing regional, and sectoral adaptation plans. The NAP process will be complementary to the NCCS as it would unpack and operationalize a long-term vision for adaptation and promote coordinated process for adaptation planning. It would intervene in identifying risks, vulnerabilities and adaptation options in the water sector in two major locations as well as provide tools and methods to be replicated across the country.
- 17. Fundamental Directions of Economic, Political, and Cultural Development of Turkmenistan up to 2020** called on the former Ministry of Agriculture and Water Resources (MAWR) to implement sustainable land use in agriculture, as well as rational use of water. State-supported activities in these areas include innovation in irrigation and agricultural practices; creation and maintenance of new and existing collector-drainage networks; expanded crop rotation; renovation and planting of new shelterbelts and woodlands, as measures to conserve soil and moisture; development and implementation of standards for use of fertilizer and other chemicals; and land reclamation.
- 18. The National Water Code**, revised and adopted in October 2016, defines the conditions for water use and water management, especially in agriculture. Notably, it contains progressive provisions for encouraging innovation and conservation – including the gradual introduction of water metering and tariffs. It also established the legal status of water user groups, a new model, that enables smallholder farmers to band together for planning and the implementation of projects. However, in order to implement the National Water Code, there is a need to develop relevant complementary policy, regulatory and implementation instruments, including laws, by-laws, national and regional regulations and irrigation technical norms. The NAP will play an important role by driving the integration of climate change adaptation into relevant policy instruments that are being developed to operationalize the National Water Code. These instruments include: Criteria and quality indicators of irrigation water – Article 104 of the National Water Code (NWC); General requirements on protection of surface and underground waters from mineral fertiliser contamination - Art.90/NWC; Classification of water facilities of Turkmenistan - Art 7/NWC; Intra-ministerial standard on the use of reclamation systems and constructions. Technical requirements on water metering equipment and technologies – Art 20 and 41/NWC; Guidance on water control, primary calculation of water use – Art 25/NWC; Construction norms and regulations – Protection of agricultural lands and nature landscapes from flooding – Art 95/NWC.

Institutional arrangements for adaptation coordination related to water resources.

- 19.** There have been a few important institutional changes in Turkmenistan since the first submission of this proposal. This proposal was originally submitted by the State Committee for Environmental Protection and Land Resources of Turkmenistan (SCEPLR) who was the NDA at that time. However, in January 2019, a Ministry of Agriculture and Environment Protection of Turkmenistan was



established as a result of the merging of the SCEPLR and the Ministry of Agriculture and Water Resources (MOAWR).

20. The Ministry of Agriculture and Environment Protection of Turkmenistan (MAEP) has the overall responsibility for the agriculture sector and the development, management and coordination of environmental and climate change policy. This includes climate change adaptation, as well as monitoring and management of non-agricultural land resources. MAEP is responsible for the observance of the environment protection legislation related to water resources. It is also responsible for the overall environment and nature protection including water resources.
21. MAEP has assumed the functions of the former SCEPLR and MOAWR and has overall responsibility for the agriculture sector. The MAEP is now the NDA to the GCF, and the National Focal Point to the UNFCCC. The MAEP oversees both the strategic direction and the practical implementation of agriculture and water management. It directly defines mandates and conditions for the work of the state-run collective farms. It carries out oversight of both agriculture and water management at national, regional and district levels.
22. The **State Committee for Water Management of Turkmenistan (SCWM)**. Established in January 2019 as part of the reform of the MAEP in which the SCWM was separated out. The SCWM is responsible for water management and distribution, including development of policies on water management, planning and management of state irrigation systems as well as having a mandate over water tariffs and pricing policies. Despite now being a separate entity from the MAEP, the SCWM is considered an integral part of the agricultural complex/sector and coordination and information sharing is harmonized between the two entities. This harmonization and close working relationship is enhanced by both entities being located in the same building. The SCWM will benefit from the project through the development and access to information on water resources and utilization and capacity building on climate change adaptation. The SCWM will be represented on the Project Board and engaged in project decision-making, planning, implementation and monitoring processes.
23. The **National Committee for Hydrometeorology (NCH)** was also merged into the new MAEP in January 2019 and is now known as the **Hydrometeorological Service**. It is responsible for meteorological, hydrological, and agro-meteorological monitoring, developing forecasts for hydrometeorological events, surface water flow probabilities, accurate climate data for use in planning for crop sowing and harvesting, and, providing general hydrometeorological information to the public. The Hydrometeorological Service is also tasked with developing scientific and technological cooperation in the area of hydrometeorology with neighboring countries, systemized exchanges of hydrometeorological information, complying with common methodologies of hydrometeorological observations, and hydrometeorological data collection and dissemination.
24. The **Hyakimliks of Ashgabat and Dashoguz** oversee water management for drinking, household use and other communal needs within these cities. These functions were transferred to the Hyakimliks from the Ministry of Communal Services (abolished) in July 2018. As such, Hyakimliks are now in charge of planning and implementing water supply and management, inclusive of drinking water and sewage.

Other Relevant Initiatives

25. **Addressing Climate Change Risks to Farming Systems in Turkmenistan at National and Community Level, 2012-2016**. The main objective of this Adaptation Fund supported project was to strengthen water management practices at both local and national levels in response to climate change-induced water scarcity risks that are increasingly affecting farming systems in Turkmenistan. The project assessed and delivered water adaptation measures to local vulnerable communities in the three typical agro-ecological regions, while also strengthening national level water legislation and pricing to ensure water availability for non-state sector farmers. This project led to the development and adoption of the new water code which went into effect in 2016 which called more stringent water measurement and monitoring and price tariff systems. It also enabled the community-based management of water resources. The project also piloted the establishment of 9 water user groups in various areas and demonstrated several adaptation measures. The proposed project builds off this project and takes a more macro approach and systemic approach to build resilience in the water sector. The adaptation measures taken in this project will contribute to the survey and compiling existing adaptation measures in the proposed project. Furthermore, this proposed project will build on the lessons and experiences of this project as it relates to the functioning of water user groups and the introduction of innovative water management practices and technologies.
26. **Supporting Climate Resilient Livelihoods in Agricultural Communities in Drought-prone Areas of Turkmenistan, 2016-2021 (SCRLAC)**. This project targets three components: (i) improving

climate-related socio-economic outcomes in targeted agricultural communities in Lebap and Dashoguz Velayats through the implementation of community-based adaptation solutions; (ii) mainstreaming climate adaptation measures in agricultural and water sector development strategy and policy; and (iii) strengthening national capacity for iterative climate change adaptation planning, implementation and monitoring.

27. An envisioned activity of the SCRLAC had been to develop sectoral adaptation strategies within the projects defined targeted areas. However, due to a restructuring of the Min of Ag and SCEPLR that resulted in changes in management and priorities, this activity was dropped from the project. That said, it is also important to note that the original focus of these activities was to develop strategies at a local and farm level, not the broad sector level, despite being described as a “sector” adaptation strategy. The NAP is to serve in the role of actual sector strategies as it develops, learns and evolves.
28. The SCRLAC project is supporting livelihoods in rural areas in the Lebap and Dashoguz velayats through the implementation of community-based adaptation solutions. Currently, the project has developed four gender-sensitive local adaptation plans and expects to develop four more. The SCRLAC project has made significant progress in promoting legislative and regulatory changes. The project contributed to the adoption of the Law on Land Cadaster. A new draft of the Land Code and other legislation by-laws as well as regulatory documents such as methodological guidance on soil evaluation and economic assessment of arable lands, model contracts for the supply of irrigation water to water users, land valuation and economic assessment of arable lands were produced and are currently under review by MAEP. This proposed GCF project can build on this practice to further integrate climate risks into policy and regulation through the provision of data and information.
29. This proposed GCF project will build on the practical experiences and lessons learned of the SCRLAC, especially as it relates to developing adaptation actions
30. **Preparation of INDC to the 2015 Agreement under the UNFCCC.** This \$1.8 M GEF supported project is helping nine countries to prepare and submit intended nationally determined contributions (INDCs) to the 2015 United Nations Framework Convention on Climate Change (UNFCCC). In Turkmenistan, the preparation of the adaptation portions of the INDC is being led by a working group represented by several ministries and institutions dealing with climate change adaptation issues. A questionnaire was developed and distributed which focused on identifying needs for adaptation, thoughts on future climate impacts, analysis of the impacts on vulnerable sectors, technology requirements, investment needs, capacity building needs, ideas on the effective adaptation options and associated costs, etc. The questionnaire was sent to various ministries and agencies and the responses informed the Working Group decisions on the adaptation section. Furthermore, The NAP process developed in this proposal will, over time, be informed and will address the high-level adaptation needs identified by the INDC.
31. **Energy Efficiency and Renewable Energy for Sustainable Water Management in Turkmenistan.** This GEF-funded project, which commenced in 2015, is being implemented by UNDP. Its main goal is to increase energy efficiency in the water-management sector via various approaches, including the reduction of water losses, which in turn would reduce the need for pumping. This project includes demonstrations of new irrigation technology, including drip and sprinkler systems. It also includes an activity on development, production, and deployment of canal lining materials to reduce infiltration losses and salinization of affected lands. All technical work of the project is intended to increase know-how among farmers and scientists, but also illustrate the financial advantages of scaled-up state and private investment. The proposed GCF project will build on the lessons learned and experiences of this GEF project as it relates to approaches to water resiliency and water technologies, particularly as demonstrated in the pilot research sites. These lessons and experiences will inform the development of adaptation planning and investments.
32. **Sustainable Cities in Turkmenistan: Integrated Green Urban Development in Ashgabat and Awaza, 2017-2023.** The primary focus of this project is to promote and implement integrated low-carbon urban systems in Ashgabat and Awaza, thereby reducing GHG emissions and creating other environmental, social, and economic development benefits. Component 1. “Sustainable urban development in Ashgabat” contains Output 1.4 that develops city-wide sustainability plans for Ashgabat that include mitigation and adaptation actions. While the proposed NAP project will be both informed by the work, results and lessons learned of the Sustainable Cities Project, it is particularly aligned to Output 1.4. Specifically, the NAP expects to scale and or design adaptation interventions in Ashgabat that relate to water that result from the sustainability plans. Note that the Sustainable Cities project is still being implemented and therefore specific details of how the NAP project/process will build on it are to be determined.



33. The above ongoing projects have generally prioritized the demonstration and further upscaling of efficient water management practices through the transfer of technology and knowledge and the advocacy of the socio-economic benefits for the affected population. This proposal seeks to translate this thinking into adaptation planning processes to ensure that the governance and policy frameworks will further support adaptation planning and efficient water management at the country level.

34. Turkmenistan is expected to join two new WB-sponsored regional initiatives that involve five Central Asian countries. The Central Asia Water Resources Information Management Program to help modernize water management systems and strengthen the accessibility and reliability of water information, as well as the capacity for planning, operations and coordination of water resources. The other is the Climate Adaptation and Mitigation Program for the Aral Sea Basin which will seek to address the mounting impact of climate change through improved datasets, knowledge, and tools for climate assessment and decision-making, as well as increased financing and technical assistance to rural communities for climate investments that improve livelihoods and productivity in the face of climate risks. The proposed project will support both initiatives by providing data as well as an improved capacity of Turkmen officials as it relates to climate impacts and adaptation.

Private Sector Involvement in the Water Sector

35. Private sector involvement in the water sector is confined to sellers of various water distribution and water saving technologies such as sprinklers, drip irrigation systems, furrows, and other related products and involved in the construction of irrigation networks in support of government projects.

36. Additionally, with regards to the involvement of the private sector in agriculture (which is the major user of water) there is an increasing number of individuals engaging in commercial farming. The growth of private (non-state) farming is a result of ongoing economic reforms and diversification, and an increasing government focus on import substitution. The Union of Entrepreneurs and Industrialists estimates that there are 20,000-30,000 private commercial farmers at this time, and that they are making capital investments in land improvement, irrigation, and greenhouses.

37. Barriers to further private sector growth in the agriculture sector are a lack of awareness of climate-resilient approaches (best practices and technologies) that can strengthen resilience skills and awareness of private farmers. This dynamic is compounded by a lack of consideration of climate change within existing agricultural practices, training approaches and information materials. Lastly, there is also limited access to sustainable water/land/climate information products tailored for the private sector.

3. LOGICAL FRAMEWORK AND IMPLEMENTATION SCHEDULE

Outcomes		Baseline ³	Targets	Activities ⁴ (brief description and deliverables)	Anticipated duration: 36 months											
					Monthly implementation plan of activities											
					1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33-	34-36
Outcome 1: The institutional framework to implement the Paris Agreement is established	Sub-Outcome 1.1: A coordination mechanism for the NAP process established and operationalized.	Presently, there is no institutional coordination mechanism for the NAP process or for implementing adaptation goals and obligations of the Paris Agreement.	An institutional coordination mechanism is established. Mandate, roles, processes and procedures validated. The coordination mechanism meets regularly and produces and shares summary reports of the meetings.	<p>Activity 1.1.1: Review the existing institutional framework and design a coordination mechanism and schedule of meetings for adaptation planning. Conduct a validation workshop for the coordination mechanism.</p> <p>Deliverable 1.1.1: An institutional guidance document. Annual schedule of meetings. Summary reports from coordination mechanism meetings. A validation workshop.</p>		X	X									
		There is no existing national M&E framework to include adaptation indicators and for adaptation actions.	The national M&E framework is defined and established to include indicators for adaptation actions.	<p>Activity 1.1.2: Define and establish an M&E framework for adaptation actions that track the effectiveness of adaptation efforts as well as finance flows.</p> <p>Deliverable 1.1.2:</p>					X							

³ For baselines rated at 1 or 2, please shortly elaborate on current baselines on which the proposed activities can be built on, processes that are in place that the current Readiness proposal can strengthen, or any gaps that the proposed activities would fill in. If more space is needed, please elaborate this in Section 2.

⁴ Please include tangible and specific deliverables for each activity proposed, and the timeframe (month number) in which it will be delivered to GCF. Please note that during implementation all deliverables should be included within the implementation reports for GCF consideration.

				will be shared with relevant stakeholders from the coordination mechanism.												
	Sub-Outcome 1.2: Updating of the adaptation components of Turkmenistan's NDC 2020 supported	The current and previous versions of the NDC do not contain details on adaptation, rather only broad categorical aspirations.	The forthcoming NDC will contain details on adaptation goals, priority areas for action and is supported with robust data.	Activity 1.2.1: Prepare the adaptation components of Turkmenistan's NDC. Deliverables 1.2.1: One report presenting 1. macro-climate trends, potential impacts, and vulnerabilities; proposed 2 national long-term adaptation goals; 3. gaps and barriers to achieving the proposed adaptation goals; and 4. and near-term actions to achieve adaptation goals.												
Outcome 2: The evidence base for adaptation planning in the water sector strengthened.	Sub-Outcome 2.1: Climate risks identified, assessed and prioritized.	The information base for adaptation planning is underdeveloped. Specific climate risks are not identified, well understood, assessed, prioritized and validated.	Climate risk assessments of the water sectors conducted in city of Ashgabat and the province of Dashoguz. Climate risks are analyzed and prioritized – informing decision-makers and stakeholders thereby guiding the adaptation process and planning.	Activity 2.1.1: Conduct climate risk assessments on the water resources in Ashgabat and the province of Dashoguz using a multi-criteria analysis that takes into account the unique impacts on particularly vulnerable groups including women. Deliverable 2.1.1: Two reports presenting assessments of the climate risks facing the water sectors in Ashgabat and the region of Dashoguz (one report for each location)A multi-				x								

				criteria analysis tool for assessing climate risks. Both the report and the MCA tool will be designed for use in adaptation planning other cities/regions.												
		The GoT does not have a list of prioritized climate risks for which adaptation actions can be taken to address.	The GoT has a report that presents a ranked list of climate risks that are to be addressed. The ranking will be done according to the severity of expected impacts, and alignment with national development priorities	<p>Activity 2.1.2: Analyze and prioritize climate risk assessments for action that consider economic, environmental and social costs and benefits, and the unique risks by vulnerable groups including women.</p> <p>Deliverables 2.1.2: Two assessment reports that rank climate risks to be addressed in Ashgabat and the region of Dashoguz.</p> <p>A national level methodological guide for assessing climate risks and vulnerabilities developed based on data from Ashgabat and the region of Dashoguz. Both the report and guide will inform and support the scaling of adaptation planning in other cities as there will be common challenges.</p>					X	X						
		Regulatory policies and plans were not developed with a view towards integrating adaptation measures in a tangible manner. As such, while many policies and plans note	There are clear entry points for integrating adaptation into key policies and plans that relate to water. Policymakers	<p>Activity 2.1.3: Analyze regulatory policies and plans to identify entry points to integrate climate risk considerations.</p> <p>Deliverable:</p>							X					

		that adaptation is a concern and priority, they need to be updated to allow for integration of adaptation measures.	and planners have a clear view on where and how to focus their efforts to integrate adaptation into these policies and plans.	A report that presents findings and recommendations for integrating climate risks into policies and plans.												
	Sub-Outcome 2.2: Adaptation options identified, budgeted, prioritized and supported by concept notes.	It is broadly understood that some communities in the target areas are taking micro adaptation actions. In the actions there may be opportunities for replication and scale up. However, these adaptations are not well understood or documented thereby preventing the opportunity for replication and scaling up.	By surveying and analyzing the effectiveness of local micro-adaptation actions in the target areas the evidence base is enhanced and provides an opportunity to policy makers and individuals alike to learn from, replicate and scale up these adaptive actions.	Activity 2.2.1: Conduct a survey of indigenous adaptation practices Deliverable 2.2.1: Report presenting the identified indigenous adaptation practices with recommendations for replication and scaling across the country.						X						
		Adaptation planning is constrained and uncoordinated as adaptation themes and actions have not been researched, explored, developed and are agreed to be strategically important.	Adaptation planning in Turkmenistan is guided by well researched and explored adaptation investment themes and proposed actions.	Activity 2.2.2: Develop and prioritize adaptation themes and actions for Ashgabat and Dashoguz that are informed by stakeholder consultations and the ranked climate risks of 2.1.2. Deliverable 2.2.2: Report that presents the criteria and results of prioritized adaptation investment themes and actions. A methodological guide for developing adaptation themes							X	X				

				<p>and actions as well as for prioritization that can be utilized in other cities/regions as the adaption planning scales.</p> <p>This compendium will be validated by a national workshop.</p>												
		Adaptation planning is constrained by the lack of a pipeline of bankable projects that address the most pressing concerns.	The NAP process is supported with an initial pipeline of concept notes for which to take initial action.	<p>Activity 2.2.3: Develop 2 concept notes that address the top priority adaptation options for Ashgabat and Dashoguz.</p> <p>Deliverable 2.2.3: Two GCF quality concept notes.</p>								X	X			

<p>Outcome 3: Capacity for adaptation planning strengthened</p>	<p>Sub-Outcome 3.1: The capacity of national adaptation and water planners enhanced</p>	<p>Those involved in the NAP process, including those in the Coordination Mechanism and the MAEP, lack a deep understanding of the specific challenges faced by the water sector especially over the mid to long term. This inhibits the NAP process, especially in the most important area of water.</p> <p>Water planners are faced with new and evolving challenges of water use and scarcity. They lack the capability to capture and produce key information required to inform and contribute to effective adaptation planning.</p>	<p>Members of the Coordination Mechanism and others involved in are sufficiently capacitated, with a deep understanding of the water sector. They have been equipped with the knowledge and tools to address problems through adaptation actions and manage the NAP process.</p> <p>Officials with responsibility for hydromet have significantly increased their capabilities and output of useful and actionable information that enables both them as well as other institutions to integrate this information into their planning.</p>	<p>Activity 3.1.1: Assess the capacity needs of the Coordination Mechanism and the MAEP as it relates to understanding and utilizing climate information to conduct adaptation planning</p> <p>Deliverables 3.1.1: Capacity needs assessment of the coordination mechanism and MAEP conducted</p> <p>Curriculum developed for increasing knowledge and capability for understanding and utilizing climate information.</p> <p>Training programs with learning materials developed and in total of 6 (2-day) trainings provided for up to 50 specialists of the MAEP, SCWM, Ashgabat municipality and Dashoguz regional governments.</p>											
		<p>The MAEP lacks a deep understanding of how to fully utilize their existing meteorological and ecological monitoring equipment. As such planning and operations are not optimized. Important information useful to long term adaptation</p>	<p>The MAEP is utilizing its meteorological and ecological monitoring equipment generating high quality data that is informing the NAP process</p>	<p>Activity 3.1.2: Training the MAEP on the use of their meteorological, hydrological and ecological monitoring equipment.</p> <p>Deliverable 3.1.2:</p>	X	X	X								

		planning is not being captured and factored.	as well as planning and operations.	Training programs on the use of field equipment conducted (total of 10 workshops) that include up to 50 specialists - representatives from water planners from city and district municipalities across the country as well as academia (Academy of Science, Agricultural University in Ashgabat and Agricultural Institute in Dashoguz.												
		Water planners within national organizations have an underdeveloped level of expertise when it comes to adopting and implementing adaptation measures. As such there is a need for building knowledge to upgrade skills and improve water planning through the integration of adaption planning .	Water planners within national organizations are highly knowledgeable about adaptation in water planning leading to improved utilization of water in all contexts.	Activity 3.1.3: Training on how to integrate adaptation into water planning delivered. Deliverables 3.1.3: A tailored capacity development curriculum formulated and conducted via two 3-day workshops in Ashgabat and Dashoguz for up to 50 city and district municipality specialists.				X			X			X		
		Knowledge about the impacts of climate change and adaptation options is not well known in throughout the country. As such there is a need to significantly scale up knowledge of CC impacts and adaptation across all areas of the public and private sector but there is a lack of informed people to do this work.	A cadre of well informed and trained individuals to work with various types of stakeholders to mainstream adaptation planning across Turkmenistan.	Activity 3.1.4: Conduct capacity development programme of trainers to support the mainstreaming of adaptation techniques and practices. An effort will be made to ensure that there is a balance of genders of the trainers.						X						



4. ADDITIONAL INFORMATION

Stakeholder consultations

38. In 2017 the Government of Turkmenistan decided to develop a NAP process. To support their efforts, they engaged UNDP Turkmenistan to help elaborate this Readiness Proposal. Since then, UNDP's Country Office in Turkmenistan has worked closely with the GoT to support them including sending two international expert missions to Turkmenistan to support the proposal development process.
39. Over the course of the two missions, wide consultations were held with all relevant national stakeholders, resulting in a general agreement and support for developing and pursuing a country-wide adaptation agenda with a special focus on water resources. Specifically, the team consulted (most of them at least twice) with the following organizations and individuals:
- The former State Committee for Environmental Protection and Land Resources;
 - The Ministry of Finance and Economy;
 - The former Ministry of Agriculture and Water Economy;
 - The National Committee for Hydrometeorology;
 - The National Institute for Deserts, Flora, and Fauna;
 - The Turkmen focal point to UNFCCC;
 - National climate change experts (developed key policy docs including the NDC);
 - The Union of Industrialists and Entrepreneurs;
 - Bosfor - a civil society organization;
 - National climate change experts who drafted the NDC and other related documents;
 - The SDG Centre for Turkmenistan (a national training and methodology center);
 - most recently, UNDP CO held consultations with the Union of Women of Turkmenistan.
40. The primary and consistent message received through the consultations was that the NAP process needs to build the capacity of institutions responsible for adaptation planning so that they can produce usable information and effectively integrate climate risks into planning.



41. On 24 July 2018, a round table (minutes and list of participants enclosed) was held to review the pre-final draft of the proposal application. The meeting discussed in detail the proposal with a few minor observations as reflected in the minutes and concluded that the proposal should be submitted to the GCF.

Barriers

42. The following barriers will be addressed in achieving the project goals:
43. **An absence of an institutional coordination mechanism for adaption planning and implementing the Paris Agreement.** Currently, Turkmenistan does not have a legal and institutional framework that manages climate adaptation in a holistic, integrated and comprehensive manner. There were plans for a coordination mechanism to be established for implementing the Paris Agreement, however, these plans did not materialize when the Ministry of Economic Development (the intended host of the coordination mechanism) was absorbed into the Ministry of Finance and Economy. The GoT envisions that an inter-ministerial coordination mechanism is needed as the scope of addressing climate risks is multi-sectoral and multi-level. Decisions with regards to the best structure, roles, processes and host for a coordination mechanism need to be thoroughly researched and analyzed.



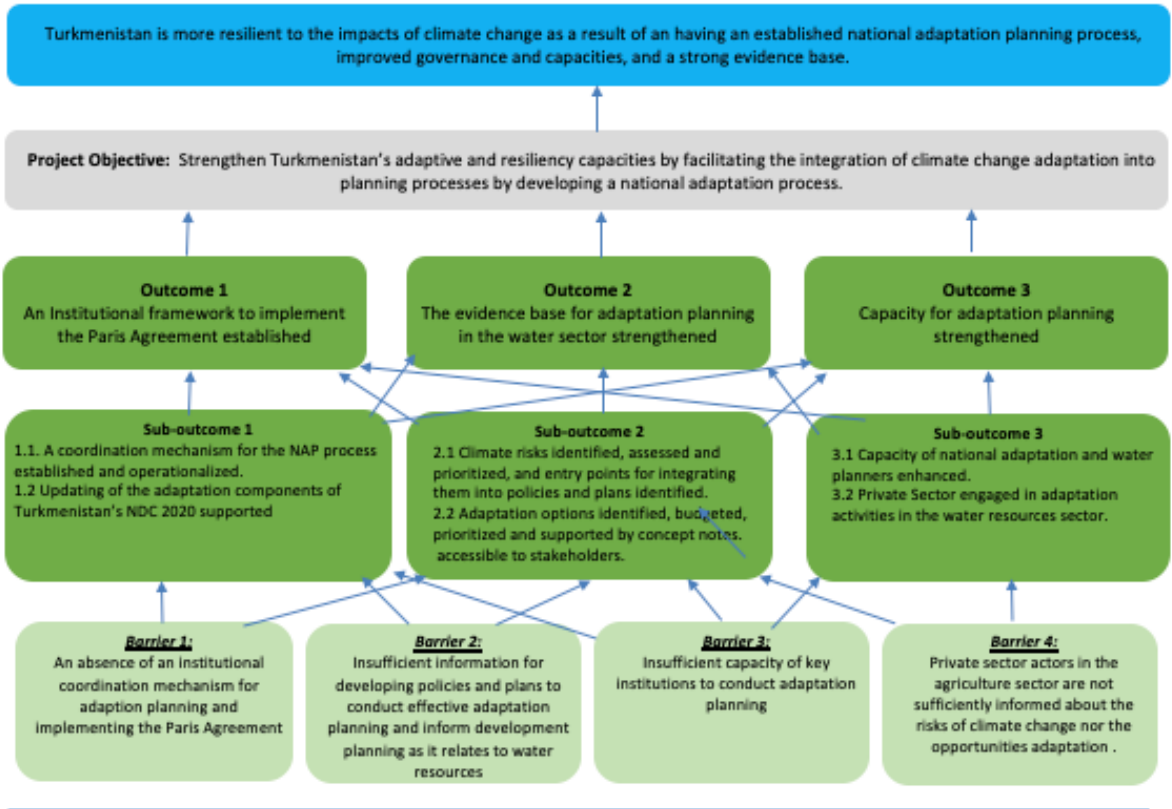
44. Insufficient information available for developing policies and plans to conduct effective adaptation planning and inform development planning as it relates to water resources. Despite recent shifts to prioritize adaptation in national policy documents and strategies, national planning is not adequately informed of nor does it integrate climate risks. This is due, in part, to a lack of data on the climate risks as well as knowledge about viable adaptation options. To date, there has been only one vulnerability assessment conducted in Turkmenistan which was focused on the impact of climate change on grasslands in one of the five regions. There are no other climate change risk assessments. Socio-economic scenarios have not been developed as access to socio-economic data is restricted. The limited socio-economic data that does exist is not integrated with any kind of climate risk assessment framework. As such, there is essentially little to no evidence base to inform adaptation policies and planning. However, due to national procedures to restrict socio-economic data, this is not a gap that the project will address directly. However, it is important to note this barrier. The costs (current and future) of adaptation options/actions are not integrated in national budgeting processes.

45. Insufficient capacity of key institutions to conduct adaptation planning. The capacity of The Ministry of Agriculture and Environment Protection, the Ministry of Finance and Economy, the State Committee for Water Management, National Institute for Deserts, Flora, and Fauna, and the City of Ashgabat to conduct adaptation planning is insufficient as they have had little to no practical exposure or formal training in climate risks, impacts and adaptation. As such, these groups do not have an advanced understanding of how to integrate climate risks into planning and develop and prioritize adaptation options. These institutions will need to develop a better understanding of the issues and solutions associated with climate adaptation, especially in the water sector.

Additionally, the Hydrology Service to monitor, capture, and analyze climate data and provide medium and long-term forecasts is insufficient. The Hydrology Service is responsible for monitoring weather. A lack of human capacity and modern modeling and forecasting technologies constrains their ability to capture the information required for effective adaptation planning. This is problematic as national, regional, municipal and sectoral planning requires both accurate information and modeling for making accurate long-term assessments of climate change risks and impacts. Climate advisories or other climate information products are generally not available. Hydrology Service staff note their need for knowledge about international best practices, and how to effectively use their existing equipment so as to get maximum information for analyzing data.

46. Private sector actors in the agriculture sector are not sufficiently informed about the risks of climate change nor the opportunities adaptation. In general, members of the agriculture have only a very basic understanding of the risks and impacts of climate change even less knowledge about the adaptation and its potential benefits leaving them particularly vulnerable.

Theory of Change diagram



Problem: Turkmenistan's development plans do not adequately integrate climate risks and adaptation responses leaving the country vulnerable to the risks of climate change.

Risks
 This proposal faces relatively modest levels of risks. The political situation in Turkmenistan is considered stable and sufficiently supportive to design and implement this proposal. National and sub-national accountability mechanism are in need of strengthening but are strong enough to track and ensure proper and appropriate utilization of funds. Of primary concern from a risk perspective are the institutional systems and capabilities to guide implementation of the NAP which is why the project focusses on these areas. A risks and mitigation table detailing the major risks and planned efforts to mitigate them is included in an annex and listed, in part, below:

1. Potential for delays in implementation at start-up possibly from the procurement project staff, consultants and other elements. Other delays could arise from inadequate institutional coordination and or participation of stakeholders.
2. A limited ability to collect data. This leads to an incomplete data collection could lead to delays / challenges in the completion of the outputs / activities.
3. Low institutional capacities lead to ineffective execution of the project that undermine the project.
4. Conflicts emerge between stakeholders concerning roles in the NAP process leading to an uncoordinated approach to tackling climate change and a NAP process that is ineffective or suboptimal.
5. Lack of political will to support the project endangers the sustainability of the project.
6. Insufficient focus/commitment to adaptation due to other immediate development pressures threatens the sustainability of a NAP process beyond the project
7. Certain stakeholder groups are excluded from fully participating in NAP processes and decisions that may affect them. This leads to a NAP process that does not reflect the vulnerabilities and needs of certain stakeholder groups. This is a particularly a risk in Dashoguz.

Assumptions
 The GoT will continue to actively pursue NAP funding.
 The GoT will provide adequate and appropriate core staffing during the implementation of this project.
 The GoT is committed to developing and sustain a NAP process as a means to adapt to the challenges of a quickly changing climate.
 Qualified international and national consultants, as well as service providers will be identifiable and procurable.
 The GCF will disburse funds in a timely manner.
 There will adequate and sustained budget from the GoT for climate change adaptation planning.

47. The overall objective of the project is to strengthen Turkmenistan's adaptive and resiliency capacities by developing a national adaptation process (NAP). The objective will be achieved through the implementation of the following proposed outcomes and sub-outcomes.



48. Outcome 1: The institutional framework to implement the Paris Agreement is established.

- A coordination mechanism to implement the adaptation components of the Paris Agreement established and operationalized.
- Updating of the adaptation components of Turkmenistan's NDC 2020 supported.

49. Outcome 2: The evidence base for adaptation planning in the water sector strengthened.

- Climate risks identified, assessed and prioritized.
- Entry points for incorporating climate risks into policies and plans related to water resources identified.
- Adaptation options identified, budgeted, prioritized and supported by concept notes.

50. Outcome 3: Capacity for adaptation planning strengthened.

- The capacity of the MAEP enhanced.
- The capacity of water planners strengthened (National, Ashgabat and Dashoguz).
- Private Sector Informed about adaptation challenges, options and opportunities in the water resources sector.

51. The project will establish an institutional coordination mechanism capable of multi-sector adaptation planning. However, initially adaptation planning will focus on the water sector. The work of building the information base for adaptation planning is largely focused on hydrology and meteorology as well as adaptation themes and actions. Capacity building will take a similar approach in that it builds the capacity of those involved in national adaptation planning to do the work effectively regardless of sector. However, there will also be capacity training specific to the water sector for national and sectoral officials who are responsible for water resources.

52. Considerations of vulnerability and gender inequalities will be key principles of the NAP process. Specifically, representation of women and relevant gender focused entities will be ensured throughout the implementation of this proposal including workshops and seminars. A gender analysis in the formulation of activities will be a key focus area, while gender mainstreaming tools will be applied in the development of technical guidelines for the integration of climate change adaptation into planning processes.

5. BUDGET, PROCUREMENT, IMPLEMENTATION, AND DISBURSEMENT

5.1 Budget plan

See Excel file

5.2 Procurement plan

See Excel file

5.3 Disbursement schedule

See Excel file

Readiness Proposal that falls within a Framework Agreement with the GCF

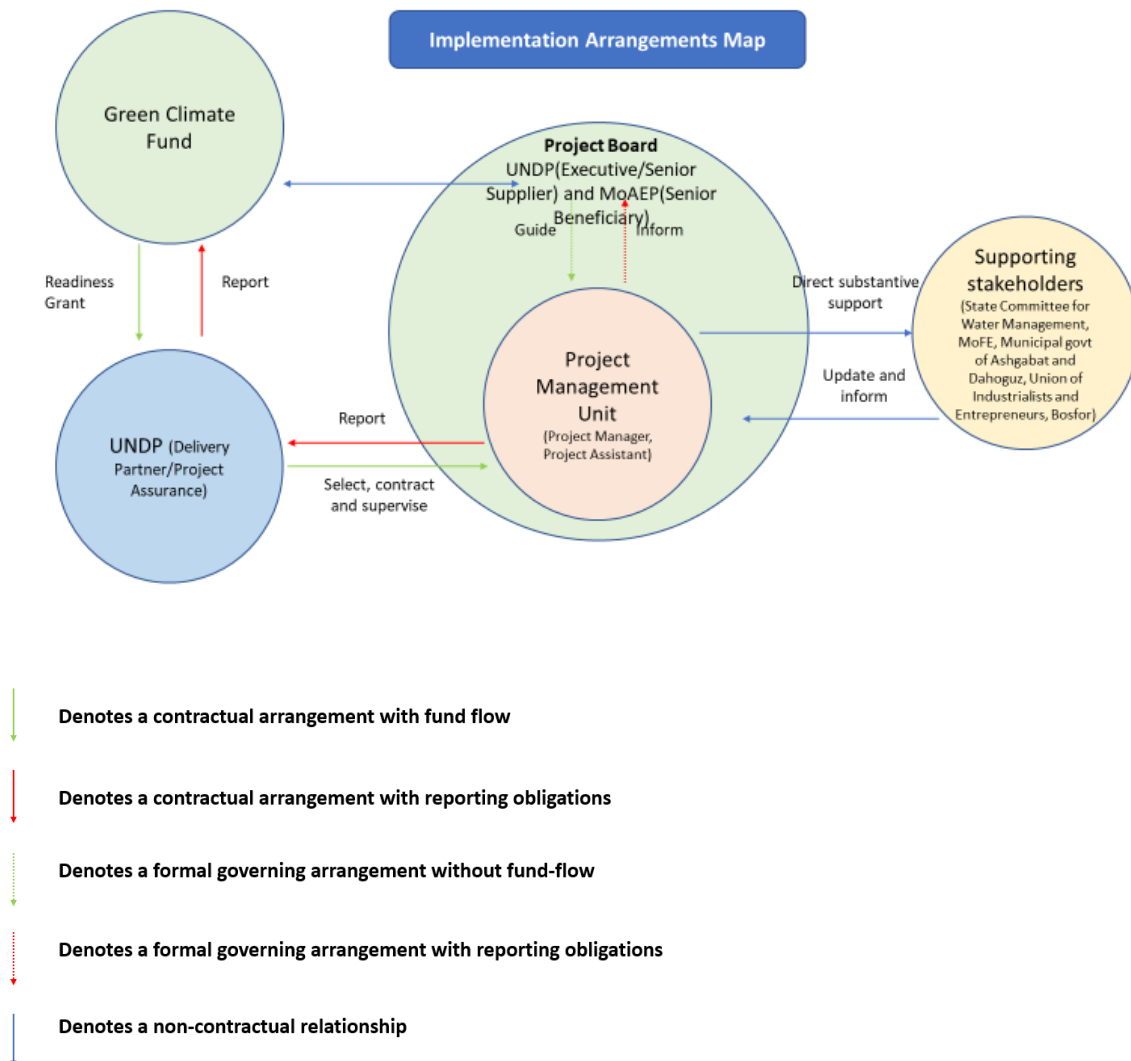
Disbursement requests will be managed at portfolio level by UNDP, as agreed under Clause 4 of the “Second Amended and Restated Framework Readiness and Preparatory Support Grant Agreement” between GCF and UNDP, dated 22 July 2020.

6. IMPLEMENTATION ARRANGEMENTS AND OTHER INFORMATION

6.1 Implementation map

The project will be implemented following UNDP's Direct Implementation Modality (DIM). The implementation of the readiness activities under this proposal will be in accordance with the Second Amended and Restated Framework Readiness and Preparatory Support Grant Agreement ("Framework Agreement") between UNDP and the GCF, dated 22 July 2020.

Management Arrangements



Project Board: The Project Board is comprised of the Ministry of Agriculture and Environment Protection and UNDP. The Project Board is responsible for management decisions, approval of project work-plans, project revisions and addressing any project level grievances. In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. UNDP's tie-breaker vote is to ensure fiduciary compliance only when consensus agreement cannot be reached by the Board. This accountability only extends to the execution of approved activities and budget resources under the project (as approved by the NDA).

The Project Board will meet at least once a year. Representatives of local governments and independent third parties, such as international or national NGOs, can attend the Project Board meetings as observers.

Specific responsibilities of the Project Board include:

- 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 countermeasures and management actions to address specific risks;
- Agree on project manager's tolerances as required;
- Review the project progress, and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
- Appraise the annual project implementation report, including the quality assessment rating report; make recommendations for the work-plan;
- Provide ad hoc direction and advice for exceptional situations when the project manager's tolerances are exceeded; and
- Assess and decide to proceed on project changes through appropriate revisions.

The composition of the Project Board includes the following roles:

Executive: The Executive is an individual who represents ownership of the project who will chair the Project Board. The Executive is ultimately responsible for the project, supported by the Senior Beneficiary and Senior Supplier. The Executive's role is to ensure that the project is focused throughout its life cycle on achieving its objectives and delivering outputs that will contribute to higher level outcomes. The executive has to ensure that the project gives value for money, ensuring a cost-conscious approach to the project, balancing the demands of beneficiary and supplier. **The Executive is UNDP.**

Specific Responsibilities of the Executive include:

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

Senior Supplier: The Senior Supplier represents the interests of the parties concerned which provide funding and/or technical expertise to the project (designing, developing, facilitating, procuring, implementing). The Senior Supplier's primary function within the Board is to guide the technical feasibility of the project. The Senior Supplier role must have the authority to commit or acquire supplier resources required. If necessary, more than one person may be required for this role. **The Senior Supplier is UNDP.**

Specific Responsibilities of the Senior Supplier include:

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

Senior Beneficiary: The Senior Beneficiary is an individual or group of individuals representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the Board is to ensure the realization of project results from the perspective of project beneficiaries. The Senior Beneficiary is responsible for validating the needs and for monitoring that the solution will meet those needs within the constraints of the project. The Senior Beneficiary role monitors progress against targets and quality criteria. This role may require more than one person to cover all the beneficiary interests. **The Senior Beneficiary is the Ministry of Agriculture and Environment Protection.**

Specific Responsibilities of the Senior Beneficiary include:

- Prioritize and contribute beneficiaries' opinions on Project Board decisions on whether to implement recommendations on proposed changes;
- Specification of the Beneficiary's needs is accurate, complete and unambiguous;
- Implementation of activities at all stages is monitored to ensure that they will meet the beneficiary's needs and are progressing towards that target;
- Impact of potential changes is evaluated from the beneficiary point of view;

- Risks to the beneficiaries are frequently monitored.

Project Management Unit (PMU): A Project Management Unit (PMU) will implement the project. The PMU will be part of UNDP but based at the MAEP and will implement the project in its entirety and will be responsible for providing daily technical, administrative and financial management of the project. The PMU will establish and coordinate collaboration with technical departments involved in project implementation and with the support of MAEP. The PMU will serve as the secretariat for the Project Board.

The PMU will be comprised of a Project Manager (PM) and a Project Support Assistant (PSA). The recruitment for these two positions will be conducted through a competitive process and by a committee of representatives from UNDP and MAEP.

Project Assurance: UNDP provides a three-tier oversight and quality assurance role involving UNDP staff in Country Offices and at regional and headquarters levels. The quality assurance role supports the Project Board by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed. Project Assurance must be independent of the Project Management function; the Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. The project assurance role is covered by the accredited entity fee provided by the GCF. As an Accredited Entity to the GCF, UNDP is required to deliver GCF-specific oversight and quality assurance services including: (i) Day-to-day oversight supervision, (ii) Oversight of project completion, (iii) Oversight of project reporting.

6.2 Risks, monitoring and evaluation (M&E), and other relevant information

Risk #	Risk category	Specific risks / Risks description	Probability of occurrence	Impact level	Mitigation actions	Entity responsible
1	Political Organizational Operational	Potential for delays in implementation at start-up possibly from the procurement project staff, consultants and other elements. Other delays could arise from inadequate institutional coordination and or participation of stakeholders.	Medium	Medium	The procurement process will be carefully monitored by the project team through the conducting of internal meetings related to implementation of the project and regular meetings with operations unit and UNDP management. The project will have procurement plan which will be regularly updated upon changing circumstances. Where necessary, UNDP management interventions will be made order to speed up the process. Additionally, the UNDP Country Office will ensure that adequate allocation of staff from UNDP and the government are provided and in a timely manner. The CO has significant experience in successfully managing complex projects. As a precautionary measure, activities in the first quarter of the project are kept to a minimum.	UNDP
2	Political Organizational	A limited ability to collect data. This leads to an incomplete data collection could lead to delays / challenges in the completion of the outputs / activities.	Medium	Medium	Clear commitment will be obtained from across government agencies to contribute to data collection and dissemination of data.	UNDP
3	Organizational	Low institutional capacities lead to ineffective execution of the project that undermine the project.	Medium	Medium	Enhancement of institutional capacity has been identified as critical to the success of the project and is the focus of Outcome 3. Involvement of the stakeholders through consultations, training and	UNDP



					workshops during the assessments, planning and policy stage is envisaged to support capacity building.	
4	Political Organizational	Conflicts emerge between stakeholders concerning roles in the NAP process leading to an uncoordinated approach to tackling climate change and a NAP process that is ineffective or suboptimal.	Low	Medium	Government stakeholder involvement is to be detailed early and clearly in stakeholder involvement plan. Support from central government will be engaged if needed. Consistent and active involvement of stakeholders is envisaged to support ownership of the project and minimize conflicts.	UNDP
5	Political Strategic	Lack of political will to support the project endangers the sustainability of the project.	Low	High	Awareness-raising among the key decision-makers of the near and long-term risks of climate impacts to national and sectoral development should help build support for the project and an ongoing NAP process. Support will be given to government to organize consultations on project progress at key stages to maintain government ownership and interest in the project. Collaboration with other cooperation projects which will help to maintain political visibility.	UNDP
6	Political Strategic	Insufficient focus/commitment to adaptation due to other immediate development pressures threatens the sustainability of a NAP process beyond the project.	Low	High	The development of the NAP process, and governance framework as well as integrating adaptation into water planning should ensure the sustainability of the project and the NAP process	UNDP
7	Political Operational	Certain stakeholder groups are excluded from fully participating in NAP processes and decisions that may affect them. This leads to a NAP process that does not reflect the vulnerabilities and needs of certain stakeholder groups. This is a particularly a risk in Dashoguz.	Low	Medium	Special care will be taken to ensure that all stakeholder groups are informed and given the opportunity to participate in the NAP process. This is especially true for communities in Dashoguz. Additionally, the project implementing team will conduct real-time monitoring and evaluation of each stakeholder engagement activity to ensure that these processes are fully inclusive. Management processes (e.g. budgets and work plans) will be adjusted should country circumstances prevent any affected stakeholder groups from engaging in the process.	UNDP
8	Operational	The COVID-19 pandemic may lead to a variety of impacts on the project including, but not limited to, delays in procurement, difficulty is conducting stakeholder consultations.,	High	High	The number of COVID-19 infections in Turkmenistan has been comparatively low so far. Regardless, the project will be particularly vigilant about potential and actual impacts resulting from the pandemic and seek to factor in specific mitigation options in each case.	UNDP

		restrictions on travel of consultants.			The project will continue to monitor situation closely and take early actions and adjustments as needed.	
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To avoid any possible conflict of interest deriving from the delivery partner's role as an accredited entity, the prioritization of investments and projects in the context of this readiness grant, will be made through a broad consultation process with relevant stakeholders, under the leadership of the NDA. The final validation of these priorities will be carried out by the country's mechanism of coordination and related institutional arrangements, with the participation of other government agencies, as well as representatives from civil society and private sector, to ensure that chosen priorities are fully aligned with national plans and strategies and adequately include inputs from consulted stakeholders

The project results will be monitored and reported annually and evaluated periodically during project implementation to ensure the project effectively achieves these results.

Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the UNDP POPP and UNDP Evaluation Policy. While these UNDP requirements are not outlined in this project document, the UNDP Country Office will work with the relevant project stakeholders to ensure UNDP M&E requirements are met in a timely fashion and to high-quality standards. Additional mandatory GCF-specific M&E requirements will be undertaken in accordance with relevant GCF policies.

I. **M&E oversight, results monitoring and reporting responsibilities:**

Project Manager: The Project Manager while responsible for day-to-day and project management, they will also make technical contributions in all outcomes. The PM is responsible for regular monitoring of project results and risks, including social and environmental risks. The PM will ensure that all project personnel maintain a high level of transparency, responsibility and accountability in M&E and reporting of project results. The Project Manager will inform the Project Board, the UNDP Country Office and the UNDP-GEF Regional Technical Advisor of any delays or difficulties as they arise during implementation so that appropriate support and corrective measures can be adopted. The Project Manager will also develop annual work plans to support the efficient implementation of the project.

The Project Manager will be supported by a **Project Support Assistant (PSA)**. The PSA will play a dual role spending 1/3 of their time performing project management activities and 2/3 of their time performing in a technical capacity including the organizing logistics, meetings, workshops and seminars, facilitating stakeholder engagement and community consultations, assisting with research, assisting service providers and consultants as necessary, ensuring work related to gender is being conducted appropriately, and various other tasks which are relevant to the execution of the outcomes.

Project Board: The Project Board will take corrective action as needed to ensure the project achieves the desired results. The Project Board will hold project reviews to assess the performance of the project and appraise the Annual Work Plan for the following year. In the project's final year, the Project Board will hold an end-of-project review to capture lessons learned and discuss opportunities for scaling up and to highlight project results and lessons learned with relevant audiences. This final review meeting will also discuss the findings outlined in the project terminal evaluation report and the management response.

UNDP: will retain all project records for this project for up to seven years after project financial closure in order to support any ex-post reviews and evaluations undertaken by the UNDP Independent Evaluation Office (IEO) and/or the GCF. UNDP is responsible for complying with all UNDP project-level M&E requirements as outlined in the UNDP POPP. This includes ensuring the UNDP Quality Assurance Assessment during implementation is undertaken annually; the regular updating of the ATLAS risk log; and, the updating of the UNDP gender marker on an annual basis based on gender mainstreaming progress reported in the Annual Project Report and the UNDP ROAR. Any quality concerns flagged during these M&E activities (e.g. Annual Project Report quality assessment ratings) must be addressed by the Project Manager. UNDP will initiate and organize key M&E activities including the Annual Project Report, the independent mid-term review and the independent terminal evaluation. UNDP will also ensure that the standard UNDP and GCF M&E requirements are fulfilled to the highest quality.

UNDP Country Office: The UNDP Country Office will support the Project Manager as needed, including through annual supervision missions. The annual supervision missions will take place according to the schedule outlined in the annual work plan. Supervision mission reports will be circulated to the project team and Project Board within one month of the mission.

The UNDP Country Office and the project team will support GCF staff (or their designate) during any missions undertaken in the country and support any ad-hoc checks or ex-post evaluations that may be required by the GCF.

UNDP-Global Environmental Finance Unit (UNDP-GEF): Additional M&E and implementation oversight, quality assurance and troubleshooting support will be provided by the designated UNDP-GEF Regional Technical Advisor and the UNDP-GEF Directorate as outlined in the management arrangement section above.

II. **Audit:**

The project will be audited according to UNDP Financial Regulations and Rules and applicable audit policies on DIM implemented projects.⁵ Additional audits may be undertaken at the request of the GCF.

III. **Additional monitoring and reporting requirements:**

Inception Workshop and Report: A project inception workshop will be held within one month after the project document has been signed by all relevant parties to, amongst others:

- a) re-orient project stakeholders to the project strategy and discuss any changes in the overall context that influence project strategy and implementation;
- b) discuss the roles and responsibilities of the project team, including reporting and communication lines and conflict resolution mechanisms;
- c) review the results framework and finalize the indicators, means of verification 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;
- e) identify how project M&E can support national monitoring of SDG indicators as relevant;
- f) update and review responsibilities for monitoring the various project plans and strategies, including the risk log (*Ref to pre-identified "Risk Assessment Summary" included at the end of this Section*);
- g) review financial reporting procedures and mandatory requirements, and agree on the arrangements for the audit; and
- h) plan and schedule Project Board meetings and finalize the first-year annual work plan.

The Project Manager will prepare the inception workshop report no later than one month after the inception workshop. The inception workshop report will be cleared by the UNDP CO and the UNDP-GEF Regional Technical Advisor and will be approved by the Project Board.

Bi-Annual Interim Progress Report: The Project Manager, the UNDP Country Office, and the UNDP-GEF Regional Technical Advisor will provide objective inputs to the bi-annual project report covering the calendar year for each year of project implementation. The Project Manager will ensure that the indicators included in the project results framework are monitored annually in advance so that progress can be included in the report. Any environmental and social risks and related management plans will be monitored regularly, and progress will be included in the report.

The Annual Project Report will be shared with the Project Board. UNDP will coordinate the input of other stakeholders to the report as appropriate. The quality rating of the previous year's report will be used to inform the preparation of the subsequent report.

Lessons learned and knowledge generation: Results from the project will be disseminated within and beyond the project intervention area through existing information sharing networks and forums. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to the project. The project will identify, analyze and share lessons learned that might be beneficial to the design and implementation of similar projects and disseminate these lessons widely. There will be continuous information exchange between this project and other projects of similar focus in the same country, region, and globally.

Terminal Evaluation (TE): An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terminal evaluation process will begin at least three months before operational closure of the project allowing the evaluation mission to proceed while the project team is still in place, yet ensuring the project is close enough to completion for the evaluation team to reach conclusions on key aspects such as project sustainability.

The Project Manager will remain on contract until the TE report and management response has been finalized. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the [UNDP Evaluation Resource Center](#). As noted in this guidance, the evaluation will be 'independent, impartial and rigorous'. The consultants that will be hired to undertake the assignment will be independent of organizations that were involved in designing, executing or advising on the project to be evaluated. Additional quality assurance support is available from the UNDP-GEF Directorate. The final TE report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Advisor and will be approved by the Project Board. The TE report will be publicly available in English on the UNDP ERC.

⁵ See guidance here: <https://info.undp.org/global/popp/frm/pages/financial-management-and-execution-modalities.aspx>



Final Report: The project's final Annual Project Report 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.

Annex I: Project Description

1. The project's objective is to strengthen Turkmenistan's adaptive and resiliency capacities by facilitating the integration of climate change adaptation into planning processes by developing a national adaptation process.
2. Given the identified barriers this proposal focuses on 1. establishing an institutional framework to implement the Paris Agreement, 2. strengthening the evidence base for adaptation planning, and 3. strengthening the capacity for adaptation planning. In achieving these outcomes, Turkmenistan will lay the groundwork for systemic and iterative multi-sector adaptation planning.
3. Ashgabat is both Turkmenistan's capital and the largest city, so by focusing on Ashgabat the project can both target a large percentage of the total population but also serve as a model for adaptation to be replicated in the other major urban centers. The project is also focused on Dashoguz, as it is the provincial capital located in a cold desert region and is relatively impoverished. By focusing on Dashoguz the project will target one of the most vulnerable and impoverished populations and develop a model for adaptation planning in drought vulnerable areas.
4. **Outcome 1. The Institutional framework to implement the Paris Agreement is established.** Under this outcome, the project seeks to create a framework that enables and drives a NAP process. This will be achieved by establishing an institutional coordination mechanism with a clear mandate, roles of participating institutions identified. This will be informed by gap assessments of existing institutional processes and proposed institutional changes. This outcome will also contribute to the update/enhancement of the adaptation components of the Nationally Determined Contributions (NDCs) for 2021 submission as the previous version only discusses adaptation as a priority without providing any list of prioritized risks and adaptation actions. Enhancing the adaptation component of the NDC will also enable the monitoring and evaluation of climate-focused SDG indicators such as SDG #13.
5. **Sub-outcome 1.1. A coordination mechanism for the NAP process established and operationalized.** This sub-outcome responds to the identified barrier of a lack of the existence of a coordination mechanism by examining institutional structures and establishing a framework/mechanism to formulate and expand the NAP process. This activity includes expanding the existing M&E systems to include adaptation and increase the capabilities of the actors involved. The design of a mechanism will be built on lessons from other countries, and the nuances and realities of existing institutions in Turkmenistan.
6. **Activity 1.1.1. Review the existing institutional framework and design a coordination mechanism for adaptation planning.** This activity will enable the GoT to identify options for an institutional framework and design a coordination mechanism with a defined mandate, roles and responsibilities. Additionally, this activity will result in a defined operational structure (SOPs) of the mechanism, including decision-making procedures and timeframes of NAP planning cycles and a meeting schedule. These SOPs will be validated by the coordination mechanism. This activity will be led by an international consultant with the support of a national consultant. The proposed coordination mechanism will be validated through a national workshop.
7. Focal points from the Ministry of Agriculture and Environment Protection, and other appropriate government bodies (see next paragraph) together with representatives from the Union of Industrialists and Entrepreneurs, the Central Bank, Vneshekonombank, Dayhanbank, Rysgal Bank and Senagat Bank, as well as from civil society and academia will be invited to join the coordination mechanism. These focal points will provide information and data from and to their entity and provide input to guide decision-making. The non-government entities of the Union of Industrialists and Entrepreneurs and the Union of Women will be invited to join the coordination mechanism. It is envisioned that they will serve in ex-officio capacities and provide an important voice of the private sector and women from across the country.
8. The actual representatives who constitute the coordination mechanism will be researched to identify the most appropriate persons and will be selected and approved by the Ministry of Agriculture and Environment Protection. An effort will be made to bring a gender balance to the coordination mechanism. Government entities envisioned to be part of the coordination mechanism include the Ministry of Agriculture and Environment Protection, Ministry of Finance and Economy, State Committee for Water Management, National Institute for Deserts, Flora, and Fauna, UNFCCC focal point, Municipality of Ashgabat and perhaps a representative from each of the regions.
9. **Activity 1.1.2. Define a monitoring and evaluation framework for adaptation actions.** A reporting framework will be established in which ministries and other national government entities with responsibility for adaptation planning and achieving the SDGs will report through to the Ministry of Agriculture and Environment Protection and the coordination mechanism. This monitoring and evaluation framework will include indicators for adaptation activities including adaptation financial flows, as well as gender considerations that will include the collection and management of sex-disaggregated data. The M&E frameworks will align and integrate with

the existing national M&E system. This work will be done by an international consultant working with a national consultant in collaboration with the Ministry of Agriculture and Environment Protection.

10. **Activity 1.1.3. Conduct workshops and consultations to increase awareness and understanding of climate change risks and adaptation planning.** An international consultant working together with a national consultant will design and deliver workshops to the members of coordination mechanism and other key government officials that are/will be involved in the NAP process to enhance their knowledge about climate change risks and impacts and well as adaptation planning. This activity will be done through a series of workshops complemented by individual consultations. Content will be designed to address the specific needs and interests of the coordination mechanism, as well as to fill gaps of knowledge, and will address the unique challenges that women and vulnerable groups face. The team will produce a summary report upon completion of all activities and provide the participants with learning materials.
11. **Sub-outcome 1.2 Updating of the adaptation components of Turkmenistan's NDC 2020 supported.** Turkmenistan's current NDC only touches on adaptation on a high level with no details on climate trends, impacts, vulnerabilities, nor any kind of specific adaptation goals. Determining and committing to adaptation goals and actions are key if Turkmenistan is going to become climate-resilient. Turkmenistan's capability for updating its NDC is centered on a handful (1-2) of individuals who are limited in their capacity and capability. Given that NDC's are expected to carefully consider adaptation measures in addition to mitigation measures, a significant amount of work needs to be done on the adaptation side to make an updated NDC tangible and meaningful.
12. **Activity 1.2.1. Research and design the adaptation components of Turkmenistan's next NDC.** International and national experts will be engaged to 1) research and compile information on climate trends, impacts, and vulnerabilities at a national and multi-sector scope, 2) research and propose national long-term adaptation goals with near-term actions to achieve them, 3) research and articulate gaps and barriers to achieving the proposed goals, and 4) near-term actions to achieve goals. This information will be used to substantially enhance Turkmenistan's NDC which has lacked tangible and measurable data and targets. This work will coordinate and collaborate with the development of the fourth national communication and, in part, contribute to the building of an evidence base for adaptation planning in the water sector which is the focus of Outcome 2.
13. **Outcome 2. The evidence base for adaptation planning in the water sector strengthened.** Adaptation planning in Turkmenistan is constrained by a lack of information on climate risks and adaptation options. This outcome focusses at the sub-national level as a consideration of population dynamics as well as to establish a model for adaptation planning. In this outcome, assessments of the climate risks in the water resources sector in Ashgabat and Dashoguz will be conducted using a gender-sensitive approach. This outcome will also develop a decision support tool for planners and water managers that utilizes the data and information from the assessments that contributes to informed decision-making and planning.
14. Assessments will identify gendered climate change-driven risks that will be evaluated and prioritized for action. Ashgabat was selected to build off the Sustainable Cities Initiative, serve as a model for urban adaptation as it is the capital city. Dashoguz was selected to build off the work being conducted by the Supporting Climate Resilient Livelihoods in Agricultural Communities in Drought-prone Areas of Turkmenistan (SRLAC) project which is focused on Dashoguz. Additionally, the project is intended to serve as a "provincial/rural" model for adaptation planning. Furthermore, the deliverables from this outcome will be integrated into a decision support tool for planners and water managers.
15. **Sub-outcome 2.1 Climate risks identified, assessed and prioritized, and entry points for integrating them into policies and plans identified.** The prioritized risks will be used to develop prioritized gender-sensitive adaptation options that address the risks. This activity will further enhance adaptation planning by adding to the information base and which can be used as a model and replication in other sectors and areas of the country. Included in this activity will be an in-depth analysis of women's and men's roles in the project areas. An improved understanding of women's and men's knowledge, roles and abilities will provide a solid basis for the integration of gender perspectives into climate risk and vulnerability assessments, and the prioritization of adaptation options.
16. **2.1.1. Assess the climate risks to the water resource sectors in Ashgabat and Dashoguz.** This activity will help the GoT understand what vulnerabilities exist in the face of climate change and the associated risks to the water resources sector in these two administrative areas by conducting climate risk assessments that take into account the unique impacts on particularly vulnerable groups such as women. The result and deliverable will be a report presenting an assessment of the climate risks facing the water sector in Ashgabat and the region of Dashoguz. For Ashgabat, a whole of municipality approach will be taken, while for the Dashoguz region (one of five administrative regions), a prioritization exercise that considers environmental, social and economic risks will be conducted to determine 3-4 sites/areas where the assessments will be

conducted. The prioritization exercise will result in the establishment of a multi-criteria analysis tool that allows for consideration of both quantitative and qualitative data in the ranking of risks. MCA is particularly applicable in Turkmenistan's case because quantification is difficult due to lack of information and because ultimately broader objectives are desired in the form of expanding adaptation planning to other areas of the country and sectors. This prioritization activity will likely be driven by the Governor's office and will include consultations with government and community stakeholders including the private sector. The MCA tool will be in the form of a technical document and the Ministry of Agriculture and Environmental Protection will be responsible for its maintenance and dissemination. Both the report and the MCA tool will be designed for use in adaptation planning other cities/regions.

17. **2.1.2. Analyze and prioritize climate risk assessments.** The results of the assessments will be analyzed to produce a report that presents a ranked list of climate risks that are to be addressed in project pilot areas (Ashgabat and Dashoguz). The ranking will be done according to the severity of expected impacts, and alignment with national development priorities. It will consider economic, environmental and social costs and benefits, and the unique risks faced by women and other vulnerable groups. Additional criteria will be developed through participatory activities and may include the costs of options, how effective the option is at decreasing vulnerability, co-benefits, the gendered impacts of adaptation measures, and alignment with national development plans. In conducting the analysis and prioritization exercise this activity will develop a methodological guide for assessing risks and vulnerabilities which can be integrated into the MCA tool developed in 2.1.1 and utilized in the NAP process as it expands to other sectors and provinces/municipalities throughout of the country. This list of prioritized risks will feed into the Plan to Implement the Paris Agreement for use by planners and water managers.
18. **Activity 2.1.3. Conduct a review and analysis of regulatory policies on water to identify entry points for integrating climate risks.** Existing policies related to water do not adequately factor or incorporate climate risks. To stimulate the inclusion of climate risks into policies, a review of key existing policies and development plans will be conducted to identify opportunities (entry points) at the national, province and city levels as it relates to water resources. This activity will be conducted by a service provider result in recommendations for amendments and or addition to these policies and plans that drive adaptation actions.
19. **Sub-outcome 2.2. Adaptation options identified, budgeted, prioritized and supported by concept notes.** This sub-outcome will utilize the list of prioritized climate risks to the water resources sector developed under 2.1.2 combined with the knowledge of existing adaptation practices in Turkmenistan and in other countries with similar conditions to develop adaptation focus areas that inform the NAP process and guide gender-sensitive adaptation planning.
20. **2.2.1. Survey of indigenous adaptation practices.** A national consultant will survey and inventory of existing adaptation practices, as they pertain to water, including any available information from the SRLAC project and other projects, including indigenous practices as they pertain to water resources, in the target areas. The report will also include recommendations for replication and scaling across the country. The information captured in this activity will inform the development and prioritization of adaptation options in 2.2.2.
21. **2.2.2 Develop and prioritize adaptation themes and actions.** An international firm working with a national consultant will utilize the results of the risks prioritization activity of 2.1.2 to develop a corresponding list of priority gender-sensitive adaptation investment themes with specific actions that respond to these risks in Ashgabat and Dashoguz. In developing the themes and actions participatory approaches will be taken that include stakeholder consultations. The criteria used to determine themes and actions will include the costs of options, the expected effectiveness of the actions to decrease vulnerability, deliver co-benefits, considerations of the gendered dynamics, and the alignment with national and sector development plans. This activity will consider existing national adaptation practices as well as best practices in other countries with similar climate conditions. This activity will also include developing a preliminary budget for these adaptation actions. These investment themes and actions will be used for national adaptation planning at varying levels as well as inform the NDC. Additionally, a methodological guide for developing adaptation themes and actions as well as for prioritization will be developed to support the scaling of adaptation planning in other regions/municipalities across the country.
22. **2.2.3. Develop concept notes for adaptation action.** An international firm working with the input and support of a national consultant will develop two concept notes, one for Ashgabat and one for Dashoguz, that address the top priority adaptation option. These concept notes will be driven by the GoT and supported with advisory services by the project team and specialized experts supporting the NAP project. Concept notes can be developed nationally or in partnership with an accredited entity of the GoT's choosing and for submission to a national or international funding source but designed to meet GCF quality requirements. Targeted sources of funding will include the Green Climate Fund, the Global Environment Facility, the Adaptation Fund as well as regional and bilateral partners, domestic government budgets, internationally focused impact funds and private sector organizations and companies within Turkmenistan.

23. **Outcome 3. Capacity for adaptation planning strengthened.** The technical capacities of government officials responsible for advancing the NAP process will be assessed and addressed under this outcome. This outcome will ensure that government officials of the coordination mechanism including the Ministry of Agriculture and Environment Protection, the State Committee for Water Management, as well as water planners in the Ashgabat municipal government and Dashoguz regional government have the appropriate technical skills required to advance and sustain the adaptation process is a basic requirement. The other non-government representatives on the coordination mechanism will also be included in this outcome but training will be tailored to the government participants. Technical skills training will span both climate information / hydromet as well as the socio-economic aspects of climate change adaptation, and the skills related to mainstreaming adaptation into water resources. Training packages will be developed, housed and delivered in collaboration with national institutions.
24. **Sub-outcome 3.1. Capacity of national adaptation and water planners enhanced.** A training strategy will be developed to capacitate policy and decision-making officials within the Ministry of Agriculture and Environmental Protection, other members of the coordination mechanism to facilitate the adaptation planning in the water sector. This sub-outcome also focuses on building the capacity of water planners working in national entities, the municipality of Ashgabat and in the region of Dashoguz, as well as representatives from provincial municipal governments from across the country on how to integrate adaptation into water planning.
25. **3.1.1. Assess the capacity needs of the key national government stakeholders for utilizing climate information.** To high standard for adaption planning in the water sector, members of the coordination mechanism and officials from the MAEP will receive training as it pertains to climate information and ecological monitoring. An international service provider will be engaged to come to Turkmenistan and conduct a scoping study on 1) country conditions, 2) existing equipment, and 3) conduct skills assessments of the committee members. Based on these findings, the service provider will develop a customized curriculum for a training program that addresses the weaknesses, enables new capabilities and leads to improved adaptation planning and produces methodological best practices guide for distribution and use by government stakeholders in other provinces and municipalities. The training will be delivered in 2-day modules given twice a year for the 3 years duration of the project (12 workshop days in total). It is estimated that between 25-50 individuals will receive the training.
26. **3.1.2. Train the MAEP on the use of their meteorological, hydrological and ecological monitoring equipment.** The SCEPLR (now part of the MAEP) have important capacity development needs that center on developing their ability to maximize data and value creation from their equipment. Solving this will contribute to enabling the development of accurate long-term climate forecasts and climate scenarios. The NCH (also now part of the MAEP) note that they cannot use their equipment effectively, and do not exactly know what kind of climate data products they could/should be producing that can contribute to overall adaptation planning.
27. The NCH and SCEPLR purchased meteorological and hydrological monitoring equipment from a German manufacturer a few years ago which was installed in several locations on two rivers. Training to operate the equipment was provided as part of the purchase. However, this training was provided in Germany with field training on rivers that were calm and slow. River conditions in Turkmenistan are very different, generally fast and aggressive. As such, the NHC and SCEPLR do not believe they know how to properly utilize the existing equipment and maximize value creation through the generation of accurate and high-quality data and information. As mentioned previously, the NCH and SCEPLR were absorbed into the MAEP and so the background, and planned activities are still valid but fall under the MAEP.
28. To address this issue, an international service provider with expert knowledge on the use of the equipment will be engaged to visit Turkmenistan and conduct training with the NHC on how to utilize the equipment in the local context. These training workshops will take place both in a classroom and at each of the five river posts/stations. To support the scaling of this knowledge across the country, water planners from cities from across the country, specialists from the Academy of Sciences of Turkmenistan, as well as other representatives from academia and interested parties will be invited to join the training. The training is expected to be conducted over two weeks with 2 days of training per river station (total of 10 days of workshops). It is estimated that between 25-50 individuals will receive the training.
29. **3.1.3. Train key stakeholders on integrating adaptation into water planning.** In collaboration with national institutions, an international service provider with expertise in adaptation in water planning will be engaged to visit Turkmenistan to study the capabilities of water planners as well as the local environmental conditions as they apply to water. The international service provider will develop a curriculum and deliver a customized program that builds awareness of climate risks and adaptation options. This activity will include an initial 1-week scoping mission from the service provider to gather information necessary for developing the curriculum. The training programme will focus on understanding climate information and risks, tools for integration, appraisal and prioritization of adaptation project options, project development, implementation, and gender mainstreaming within adaptation. To support the scaling up of adaptation planning of the water sector across



the country - representatives from municipalities from across the country will be invited to join the training as well. Training courses will be delivered over a 3-day programme in both Ashgabat and Dashoguz (total of 6 days of workshops). It is estimated that between 25-50 individuals will receive the training.

30. The targeted stakeholders in Ashgabat city include:
 - Ashgabat municipality (in charge of drinking water, city planning)
 - Ministry of Agriculture and Environment Protection
 - Hydrometeorology Service of MAEP
 - State Committee for Water Management
 - Mejlis (Parliament)
 - Union of Industrialists and Entrepreneurs
 - Bosfor – Civil Society Organization
 - Union of Women of Turkmenistan
 - Academy of Sciences
 - Agricultural University
31. The targeted stakeholders in Dashoguz province include:
 - Dashoguz Hyakimlik (Province Government)
 - District Hyakimliks
 - Farmer Unions
 - Ministry of Agriculture and Environment Protection
 - Hydrometeorology Service of MAEP
 - State Committee for Water Management
 - Union of Industrialists and Entrepreneurs
 - Academy of Sciences
 - Agricultural Institute
32. **3.1.4. Conduct capacity development of trainers to support the mainstreaming of adaptation techniques and practices.** Building off of 3.1.1 and 3.2.1, a select group of individuals will be nominated to be trained as trainers to support the scaling of adaptation approaches and practices across the country. These individuals will be provided additional training to equip them with sufficient skills to train others throughout their organizations and or geographical area, including municipalities throughout the country, on the concepts of climate change, the risks and adaptation measures. The trainers will also be provided with a teaching guide. In selecting the trainers an effort will be made to ensure that there is a gender balance. Individuals to be trained will be selected from government entities as well as from interested organizations including, but not exclusively, the Union of Industrialist and Entrepreneurs, Bosfor – Civil Society Organization, and the Union of Women of Turkmenistan. The training will take place over two days in Ashgabat around month 18 of the project. It is estimated that between 25-50 individuals will receive the training
33. **Sub-outcome 3.2. Private Sector engaged in adaptation activities in the water resources sector.** This sub-outcome seeks to build the knowledge base and capabilities of Turkmenistan's private sector about the risks and impacts of climate change, and the options and opportunities that adaptation actions. This will be done by engaging the support of the principal national business organization, The Union of Industrialists and Entrepreneurs, and the leading national civil society organization, Bosfor – Civil Society Organization, and the primary organization focused on women, The Union of Women of Turkmenistan as well as representatives of Academia. All of these organizations have a deep reach across the provinces (regions) and society more broadly. Therefore, engaging with them will support the scaling up and integration of adaptation in the private sector across the country.
34. **3.2.1. Design and deliver seminars to the private sector on climate risks and adaptation.** One-day workshops will be designed and delivered twice a year both in Ashgabat and in Dashoguz (total of 12 days of workshops 6 in Ashgabat and another 6 in Dashoguz). An estimated 50 attendees per seminar are expected. over the three years of the project that build the capacity of the private sector to understand climate change and formulate and implement adaptive measures. The curriculum will be designed to inform at a broad level and relevant to the water sector and commercial users of water. An international service provider with climate change expertise will work with a national consultant to design and deliver the workshops focusing on the relevant aspects of climate change and adaptation planning, initially focusing on the water resources sector. The seminars will be promoted, marketed and delivered in partnership with the Union of Industrialists, and Entrepreneurs, Bosfor – Civil Society Organization, the Union of Women of Turkmenistan, and representatives from Academia (schools of engineering, agriculture and business). In promoting the workshop, a special effort will be made to attract equal representation of women and other vulnerable groups to participate. A minimum of 50 attendees per seminar is expected.

35. **3.2.2. Design and produce information products that build awareness of the private sector of the challenges and options of adaptation in water planning.** Gender-sensitive information products aimed at building awareness within the private sector of climate risks, and challenges and options in water use will be developed to drive private sector engagement. The better informed the private sector is about the risks and impacts of climate change the better positioned they will be to develop innovative new products and services to serve these markets and deliver environmental outcomes. Content design for information products will be informed through consultations with private sector actors (organizations and individual companies). The information products will be content pieces that examine best practices and case studies from other countries where the private sector is addressing climate change adaptation issues and developing sustainable business models. While the final content is to be developed at a later date (as per the consultations) there will be some content that focusses on exploring possible incentives for the participation of the private sector in the water.
36. The information products will be produced both in printed (1,000 booklets) and electronic form, and will be distributed and promoted through the Union of Industrialists and Entrepreneurs, the Bosfor, and the Union of Women of Turkmenistan, financial and academic institutions, UNDP and supportive development partners, as well as through various government ministerial and municipal web sites, offices and events. This activity will be developed by the international and national expert team.
37. **3.2.3. Conduct private sector and civil society dialogues with the GoT.** Roundtable dialogue forums between representatives of the coordination mechanism and representatives from the private sector and civil society will be held quarterly (12 over the project). These forums will serve as a vehicle for identifying, discussing and addressing planning, policy and regulatory concerns and barriers faced by these groups as it pertains to climate risks and adaptation planning as well as provide a platform for identifying opportunities for adaptation and collaboration between the GoT and the private sector. While the agenda for the dialogues will be defined at a future date, discussions will include a focus identifying barriers and opportunities for developing new financial products and identifying investment opportunities. Additionally, to move towards the development of incentives and potentially sub-regulations of the Water Code and Land Code, two dialogues will be dedicated to exploring and creating incentives for the participation of the private sector in the adaptation activities in the water sector. To support the scaling up of adaptation planning in the private sector across the country, these forums will be promoted to and open to attendees from all parts of the country. Between 50-75 participants are expected per dialogue.

Annex II: Terms of References

Terms of Reference Programme Specialist for Resilience, Climate Change and Energy

This TOR details the provision of technical support the UNDP Country Office in Turkmenistan will provide to the execution/implementation of the GCF-funded project, “Developing a National Adaptation Planning Processes in Turkmenistan.”

The UNDP Country office in Turkmenistan will provide the following technical services through the partial engagement of a Programme Specialist for Resilience, Climate Change and Energy equivalent to 1 month per year, for 3 years. The costs incurred for the provision of the services described herein shall be recovered from the project budget. This technical assistance will be provided in the following areas:

- (a) Regular facilitation of and dialogue with development partners to ensure alignment of the NAP project outputs and results with the SDGs, United Nations Strategic Framework (UNSF), the National Program for Social and Economic Development, and the upcoming NDC (2020),
- (b) Substantive technical inputs to align the project outputs and results to broader governance and reform related initiatives in Turkmenistan,
- (c) Policy analysis and technical inputs to align the project with other adaptation related initiatives, including but not limited to the Sustainable Cities and other projects/programs supported by UN Agencies and other development partners
- (d) Regular engagement and coordination with the Adaptation Planning Coordination Mechanism and technical inputs for policy dialogue on alignment of climate change adaptation and development priorities,
- (e) Participate in and provide expert advice in the design and agendas of all the various workshops that are part of the project,
- (f) Review of key TORs for the service providers, consultants, and the Project Management team,
- (g) Substantive guidance to develop knowledge products, in particular, materials for the private sector.

The costs will be charged against the Staff lines of the project budget and will amount to \$5,127 USD/year.

Terms of Reference Regional NAP Advisor

This Terms of Reference details the provision of technical support the UNDP-GEF Regional team based in Istanbul will extend towards the execution/implementation of the GCF-funded project “Developing a National Adaptation Planning Processes in Turkmenistan.”

The UNDP-GEF will provide the following technical services through the partial engagement of a Regional NAP Advisor, equivalent to 18 days per year over the 3-years of the project. The costs incurred for the provision of the services described herein shall be recovered from the project budget. This technical assistance will be provided in the following areas:

- (a) Provide inputs to the Turkmenistan NAP team on:
 - a. current themes and new developments on adaptation planning at the UNFCCC and their relevance to national development strategies and the NAP process;
 - b. global and regional experiences on countries’ alignment of their NAPs/NDCs and SDG related workstreams;
 - c. efforts to ensure Turkmenistan NAP activities are aligned and coordinated with national, regional and global development agenda.
- (b) Provide sensitization and mentoring to the national NAP team on global and regional best practices and experiences on adaptation planning as they relate to specific outcomes of this project – through face to face missions and virtual briefings on:
 - a. methods for integration of climate change into planning and budgeting;
 - b. sub-national and sectoral integration of climate adaptation;
 - c. gender analysis and gender mainstreaming into adaptation planning;
 - d. public-private partnerships; and
 - e. monitoring and evaluation of adaptation.
- (c) Identify research and specialized institutions that can partner with Government of Turkmenistan to advise the coordination mechanism on:
 - a. Climate risks assessments;
 - b. climate scenarios and future projections;
 - c. gender differentiated and economic impact analyses for prioritization of adaptation interventions.
- (d) Provide mentoring and advice to the Turkmenistan NAP team on crowding in private sector for adaptation by bringing regional and global good practices on:
 - a. Convening, catalyzing and capitalizing private finance;
 - b. Identifying entry points for MSMEs, MNCs and/or investors;
 - c. Identifying private sector engagement tools;
 - d. Providing inputs on the NAP, NDC 2020 and other efforts.
- (e) Peer review knowledge products developed under the Turkmenistan NAP project, including support to the development of information products for the private sector and the public-private dialogues.
- (f) Support the integrated monitoring and evaluation of all performance aspects, including technical, financial and operational aspects of the portfolio and contribute to quarterly reports and preparation of projects’ bi-annual progress reports.

The costs will be charged against the Staff lines of the project budget and will amount to 16,000.00 USD/year.

5.1 Budget Plan

Please add rows for Outcomes, Outputs and Cost Categories as required. Additional budget categories may be added by manually typing them on the Budget Category sheet.

Outcomes	Budget Categories choose from the drop-down list	Detailed Budget (in US\$)						Disbursement Plan							
		Unit	# of Unit	Unit Cost	Total Budget (per budget category)	Total Budget (per sub-	Total Budget (per	Budget Note	6m	12m	18m	24m	30m	36m	
Outcome 1: An Institutional framework to implement the Paris Agreement established.	1.1 A coordination mechanism to implement the adaptation components of the Paris Agreement established and operationalized	Contractual services - Individuals	Annual	3	15,263	45,788	274,277	528,183	1	7,631	7,631	7,631	7,631	7,631	7,631
		Individual Consultant - Local	Day	180	200	36,000			2	12,000	12,000	12,000			
		Individual Consultant - International	Day	180	600	108,000			3	32,000	32,000	32,000			12,000
		Staff (Technical)	Annual	3	3,521	10,563			4	1,761	1,761	1,761	1,761	1,761	1,761
		Travel: Flights	Lumpsum	1	17,600	17,600			5	4,400	4,400	4,400	4,400		
		Travel: DSA	Lumpsum	1	37,860	37,860			5	9,465	9,465	9,465	9,465		
		Workshop/Training	Each	7	1,500	10,500			6	3,500	3,500	3,500			
		Audio Visual Equip & Communication	Each	7	750	5,250			7	1,750	1,750	1,750			
		Miscellaneous	Lumpsum	1	2,716	2,716			8	453	453	453	453	453	453
	1.2 Updating of the adaptation components of Turkmenistan's NDC 2020 supported.	Contractual services - Individuals	Annual	3	15,263	45,788	253,906	513,629	1	7,631	7,631	7,631	7,631	7,631	7,631
		Individual Consultant - Local	Day	200	200	40,000			9		13,300		13,300		13,400
		Individual Consultant - International	Day	200	600	120,000			10		30,000	30,000	30,000	20,000	10,000
		Staff (Technical)	Annual	3	3,521	10,563			4	1,761	1,761	1,761	1,761	1,761	1,761
		Travel: Flights	Lumpsum	1	8,800	8,800			11	2,933	2,933	2,933			
		Travel: DSA	Lumpsum	1	26,240	26,240			11	8,747	8,747	8,747			
		Miscellaneous	Lumpsum	1	2,514	2,514			8	419	419	419	419	419	419
Outcome 2: Evidence base for adaptation planning strengthened	2.1 Climate risks identified, assessed and prioritised	Contractual services - Individuals	Annual	3	15,263	45,788	284,084	513,629	1	7,631	7,631	7,631	7,631	7,631	7,631
		Contractual services - Companies	Lumpsum	1	160,000	160,000			12		53,333	53,333	53,333		
		Individual Consultant - Local	Day	300	200	60,000			13	15,000	15,000	15,000	15,000		
		Staff (Technical)	Annual	3	3,521	10,563			4	1,761	1,761	1,761	1,761	1,761	1,761
		Travel: Flights	Lumpsum	1	1,200	1,200			14	300	300	300	300		
		Travel: DSA	Lumpsum	1	3,720	3,720			14	930	930	930	930		
		Miscellaneous	Lumpsum	1	2,813	2,813			8	469	469	469	469	469	469
	2.2 Adaptation options identified, budgeted, prioritised and supported by concept notes.	Contractual services - Individuals	Annual	3	15,263	45,788	229,544	513,629	1	7,631	7,631	7,631	7,631	7,631	7,631
		Contractual services - Companies	Lumpsum	1	130,000	130,000			15			65,000	65,000		
		Individual Consultant - Local	Day	180	200	36,000			16			18,000	18,000		
		Staff (Technical)	Annual	3	3,521	10,563			4	1,761	1,761	1,761	1,761	1,761	1,761
		Travel: Flights	Lumpsum	1	1,200	1,200			17			600	600		
		Travel: DSA	Lumpsum	1	3,720	3,720			17			1,860	1,860		
		Miscellaneous	Lumpsum	1	2,273	2,273			8	379	379	379	379	379	379
3.1 Capacity of national adaptation and water planners enhanced.	Contractual services - Individuals	Annual	3	15,263	45,788	292,712	513,629	1	7,631	7,631	7,631	7,631	7,631	7,631	
	Contractual services - Companies	Lumpsum	1	130,000	130,000			18		32,500	32,500	32,500	32,500		
	Individual Consultant - Local	Day	220	200	44,000			19		11,000	11,000	11,000	11,000		
	Staff (Technical)	Annual	3	3,521	10,563			4	1,761	1,761	1,761	1,761	1,761	1,761	
	Travel: Flights	Lumpsum	1	600	600			20		150	150	150	150		

See Budget Notes

Outcome 3: Capacity for adaptation planning strengthened	Travel: DSA	Lumpsum	1	1,862	1,862	517,550	20		466	466	466	466			
		Workshop/Training	Each	30	1,500		45,000	21	5,000	10,000	10,000	10,000	10,000		
		Audio Visual Equip & Communication	Each	30	400		12,000	22		3,000	3,000	3,000	3,000		
		Miscellaneous	Lumpsum	1	2,898		2,898	8	483	483	483	483	483	483	
	3.2 Private Sector Informed about adaptation challenges, options and opportunities.	Contractual services - Individuals	Annual	3	15,263		45,788	224,838	1	7,631	7,631	7,631	7,631	7,631	
		Contractual services - Companies	Lumpsum	1	68,000		68,000		23		18,000		25,000		25,000
		Individual Consultant - Local	Day	200	200		40,000		24		13,300		13,300		13,400
		Staff (Technical)	Annual	3	3,521		10,563		4	1,761	1,761	1,761	1,761	1,761	1,761
		Workshop/Training	Each	24	1,500		36,000		25	6,000	6,000	6,000	6,000	6,000	6,000
		Travel: Flights	Each	6	100		600		26		150	150	150	150	
		Travel: DSA	Lumpsum	1	1,860		1,860		26		465	465	465	465	
		Audio Visual Equip & Communication	Each	1	19,800		19,800		27	3,300	3,300	3,300	3,300	3,300	3,300
		Miscellaneous	Lumpsum	1	2,226		2,226		8	371	371	371	371	371	371
		Total Outcome Budget							1,559,361		164,250	344,914	385,774	376,444	145,955
Project Management Cost (PMC) Up to 7.5% of Total Activity Budget		See Budget Notes	Annual	3	15,995	47,985	113,235	Percentage of PMC requested: 7.26%	28						
Services to Project-CO	Annual		3	12,000	36,000	29									
Rental & Maintenance - Premises	Annual		3	3,000	9,000	30									
Travel	Annual		3	1,000	3,000	31									
Office Supplies	Annual		3	500	1,500	32									
IT Equipment	Lumpsum		1	3,750	3,750	33									
Communications	Annual		3	1,000	3,000	34									
Professional services	Annual		3	3,000	9,000	35									

FOR GREEN CLIMATE FUND SECRETARIAT'S USE ONLY

Breakdown (per budget category)	Total (per budget category)
Audio Visual Equip and Communication	37,050
Rental & Maintenance - Premises	9,000
Consultant - Individual - International	228,000
Consultant - Individual - Local	256,000
Professional services	9,000
IT Equipment	3,750
Office Supplies	1,500
Travel	108,262
Workshop/Training	91,500
Contractual Services - Individuals	322,715
Contractual services - Companies	488,000
Communications	3,000
Miscellaneous	15,439
Services to Project-CO	36,000
Staff (Technical)	63,381
Total Outcome Budget + PMC	1,672,596

FOR GREEN CLIMATE FUND SECRETARIAT'S USE ONLY

Total Outcome Budget		1,559,361
Project Management Cost (PMC)	7.26% requested	113,235
<hr/>		
Sub-Total (Total Outcome Budget + PMC)		1,672,596
Delivery Partner Fee (DP) - Up to 8.5% of the Sub-Total		142,171
<hr/>		
Total Project Budget (Total Activity Budget + PMC + DP)	\$	1,814,767

Budget Note	Detailed Description
1	Service Contracts - Individuals: Combined annual costs of PM, PSA, PSS, and 2 Senior National Experts (spread across each Outcome). See below for breakdown of costs by role.
	Service Contract - Individual: Project Manager @ \$27,938 p/a which is equal to 75% of annual salary of \$37,250. Split over all Outcomes / Sub-Outcomes (3 Outcomes / 6 Sub-Outcomes). The remaining 25% is in budget note line 26. PM will oversee the day-to-day technical aspects of the project. This portion of the Project Manager's salary is to cover the technical aspects and contributions to the project.
	Service Contract - Individual: Project Support Assistant (PSA) @ \$13,500 p/a. This equates to two-thirds of thier annual salary of \$20,250. Split over all Outcomes / Sub-Outcomes (3 Outcomes / 6 Sub-Outcomes). The remaining one-third (1/3 = 33.3%) is allocated for PMU activities and is accounted for in budget note 28. The PSA's technical (non-PMU) day-to-day contributions to the technical aspects of the project will include organizing logistics, meetings, workshops and seminars, faciliating stakeholder engagement and community consultations, assisting with research, assisting service providers and consultants as necessary, and various other tasks which are relevant to the execution of the outcomes.
	Service Contract - Individual: Project Support Specialist (PSS) @ \$3,639 p/a which is 10% of annual salary of \$36,390 and is split over all Outcomes / Sub-Outcomes (3 Outcomes / 6 Sub-Outcomes). PSS will provide technical support such as contributing to the preparation of inception plans and reports, participation in stakeholder consultations, contribute to data collection and analysis, as well as public outreach via the media, events, and other means, to disseminate the results of the programme. Also, provide input into the final project review reports, exit strategy, lessons learned report.
	Service Contract - Individual: 2 Senior National Experts @ \$23,250 p/a each serving as a technical experts and team leaders of the various national consultants (short and mid-term) to support and work with all the International Service Providers and International Consultants in delivering all three Outcomes. Annual salaries spread evenly across all outcomes.
2	NC1: Natl Consultant working with IC1 to: 1.conduct institutional review and design coordination mechanism mission, mandate, processes, and roles (80 days); 2. design institutional reporting framework for adaptation planning that contributes to achieving the SDG's (40 days). Total of 120 days * \$200.Total of \$24,000. Note its anticipated that the same NC will perform all of the above and there will likely be just 1 TOR and recruitment and that a higher daily fee will be necessary to secure such an expert.
	NC2: Natl consultant to work alongside an IC to design and deliver six seminars over a three-year period. 40 days * \$200. Total of \$8,000.
	NC3: Natl consultant with expertise in M&E to support IC3. 20 days @ \$200 per day. Total of \$4,000
3	IC1: Intl consultant working with an NC to 1. conduct institutional review and design coordination mechanism mission, mandate, processes, and roles (80 days); 2. design institutional reporting framework for adaptation planning that contributes to achieving the SDG's (40 days); Total of 120 days * \$600. Total of \$72,000. Note that is anticipated that the same IC will perform all of the above and there will likely be just 1 TOR and recruitment. It is expected that the IC will return home between each piece of work.
	IC2: Intl consultant working alongside an NC to design and deliver six seminars over life of the project. 40 days x \$600. Total of \$24,000. An international consultant is considered required to lead the design and content creation for the seminars as this capability is not believed to be available in Turkmenistan as adaptation is essentially a new concept. Furthermore, the IC is expected to bring in international best practices from other countries as well. The NC is expected to help tailor the content to address the specific needs and interests of the coordination mechanism, as well as to fill gaps of knowledge, and provide local context on the unique challenges that women and other vulnerable groups face.
	IC3: Intl consultant to conduct a Terminal Evaluation. 20 days @ 600/day. Total of \$12,000.
4	Staff (Technical): Dedicated technical support (see below). These figures are costs shares of annual salaries and are split across the 3 outcomes.
	Staff - Regional NAP Advisor (UNDP GEF Regional Team, Bangkok or Istanbul). This person will come from existing global technical staff (as relevant) and will technical support to project-related activities, such as (but not limited to): scoping of experts, review/drafting of specialized TORs, peer-review of assessments/analytical work, sharing of global best practices in the areas of mainstreaming, gender-related work, appraisal methods, NDC-NAP-SDG linkages etc. This person will dedicate 18 days a year to the project at a cost of \$16,000 p/a to the project (cost share of a P4 annual salary). Costs are split across the 3 outcomes and across 3 years.
	Staff - Programme Specialist for Resilience, Climate Change and Energy (UNDP Country Office). This person will guide and support technical aspects and activities of the project including participating in the inception workshop, scoping of experts, review/drafting of specialized TORs, peer-review of assessments/analytical work. This person will dedicate 1 month a year to the project at a cost of \$5,127 p/a (cost share of annual salary of the NOB at \$61,526) split across the 3 outcomes and across 3 years.

5	Travel Costs: - Flights: 8 intl flights for IC's 1, 2 and 3 @ \$2,000 ea. Total: 16,000. Plus, a total of 8 domestic flights at \$100 for ICs 1, 2 and 3 and a total of 8 domestic flights for NCs 1,2 and 3 at \$100. Total: \$1,600
	Travel Cost - DSA: 180 days @ \$250 per day for IC's 1, 2 & 3. Total: 36,000. 30 days @ \$62 for NC's 1, 2 & 3. Total: 1,860.
6	Workshops: 1.1.1 and 1.1.3 Expenses for renting facilities for seven workshops. An estimated 25-50 attendees are expected per workshop/seminar. Cost per workshop/seminar \$1,500 per day.
7	Audio Visual equip, printing and translation services for 7 workshops @ \$750 per day. \$5,250.
8	Misc expenses included are contingency costs calculated at approximately 1% of the total programmatic activities. Miscellaneous expenses have been allocated as a safeguard against inflation, currency exchange fluctuations, contingencies and other external shocks that would impact current costs projections.
9	NC4: Natl Consultant working alongside IC4 to support the development of the adaptation components of the NDC including conducting research on macro climate trends, impacts, and vulnerabilities, prepare national near and long-term adaptation goals and actions; researching and analyzing the gaps and barriers to achieving the proposed adaptation goals, and developing a NDC monitoring and evaluation plan. Total of 200 days * \$200. Total of \$40,000. Note its anticipated that the same NC will perform all of the above and with only 1 TOR and recruitment and that a higher daily fee will be necessary to secure such an expert.
10	IC4: Intl consultant working alongside an NC to support the development of the adaptation components of the NDC including 1. conducting research on macro climate trends, impacts, and vulnerabilities, 2. prepare national near and long-term adaptation goals and actions; 3. researching and analyzing the gaps and barriers to achieving the proposed adaptation goals; and 4. developing a NDC monitoring and evaluation plan. 200 days x \$600. Total of \$120,000. Note its anticipated that the same IC will perform all of the above and with only 1 TOR and recruitment. Travel for IC4 provides for the IC to return home between each of the four pieces of work.
11	Travel Costs - Flights: 4 intl flights for IC4 @ \$2,000 each (\$8,000). 4 domestic flights for IC4 and another 4 domestic flights for NC4 at \$100 ea (\$800). Total \$8,800.
	Travel Cost - DSA: 100 days for IC4 @ \$250 (\$25,000), plus 20 days for NC4 @ \$62 (\$1,240). Total \$26,240.
12	Service Contract - Company: Service Provider to conduct climate risks assessment - \$100,000.
	Service Contract - Company: Service Provider to conduct and analyze climate risk assessments and prioritizing for adaptation actions. \$25,000.
	Service Contract - Company: Service Provider to analyze water related policies and propose recommendations for improving the integration of climate risks. \$35,000.
13	NC11: Support Service Provider to analyze water related policies and proposes recommendations for improving the integration of climate risks. 60 days * \$200 = \$12,000.
	NC5: Two Natl consultants to support Service Provider in conducting risks assessments, analysis and prioritization. These NC's will provide local context, intelligence, and access and will help with overall technical facilitation. \$200 x 120 days each (240 cumulative days). Total of \$48,000. These NC's will support and complement the work of the firms by providing local context, intelligence, access and will help with overall technical facilitation. The firm will take a leadership role in performing the activities, but they will rely on the NC's to help. There is also the co-benefit of building capacity of nationals to conduct and analyze climate risks.
14	Travel costs - Flights: NCs5 12 domestic flights in total @ \$100 ea. \$1,200.
	Travel costs - DSA: Total of 60 days of DSA @ \$62 for the NC5 (30 days per NC). \$3,720
15	Service Contract - Company: Service Provider (2.2.2) to develop a list of priority gender-sensitive adaptation investment themes with specific actions \$50,000.
	Service Contract - Company: Service Provider (2.2.3) to develop two GCF quality concept notes that include a pre-feasibility report and considers ESS and Gender. \$40,000 per concept note.
16	NC6: Natl consultant to conduct a survey or existing adaptation practices (2.2.1). 60 days x \$200. Total of \$12,000.
	NC7: Natl consultant to work with Service Provider (2.2.2) to develop a list of priority gender-sensitive adaptation investment themes with specific actions . 80 days x \$200. Total of \$16,000.
	NC8: Natl consultant to work with service provider (2.2.3) to develop two concept notes. 20 days per concept note = 40 days x \$200. Total of \$8,000
17	Travel costs - Flights: Four domestic return flights for each of the 3 NCs @ \$100 ea. Total of \$1,200.
	Travel costs - DSA: Total of 60 days @ \$62 for NCs, Total of \$3,720.

	Service Contract - Company: Service Provider to scope, design and deliver training sessions for adaptation planning in the water sector to members of the coordination mechanism. Training consist of three 3-day workshops. Each 3-day workshop is budgeted at \$15,000 and is inclusive of travel and accommodation. Total of \$45,000.
18	Service Contract - Company: Service Provider to provide training to the relevant GoT stakeholders on the optimal use of existing equipment. Training will take place over a two week period and will include an initial stocktaking trip to gather information on existing equipment, current usage and conditions. Total of \$35,000 (inclusive of travel and accommodation).
	Service Contract - Company: Service Provider to provide training to integrate adaptation into water planning and training of the trainers. Includes three 1-week programs plus an additional 1 week of in-country scoping for programme development. Total of \$50,000 (inclusive of travel and accommodation).
19	NC9: Natl consultant @ \$200 x 220 days to assist Service Provider with localization, context, intelligence and delivery of all 3.1 activities. Total \$44,000.
20	Travel Costs: NC9 for 6 domestic return flights to Dashoguz @ \$100 each. Total \$600.
	Travel costs - DSA: Total of 30 days @ \$62 for NC9. Total of \$1,862
21	Workshop/training: Expenses for hosting 30 days of workshops of Output 3.1. \$1,500 per day.
22	Audio Visual Equip & Communication services for 30 days of workshops @ \$400 per day.
23	Service Contract - Company: Service provider to develop and deliver a total of 12 seminars 3.2.1 (6 in Ashgabat and 6 in Dashoguz). \$4k per workshop, for a total \$48,000 (inclusive of flights and accommodation)
	Service Contract - Company: Service provider to deliver content for information products in 3.2.2. Same Service Provider as of 3.2.1. Total of \$20,000.
24	NC10 Natl consultant @ \$200 per day x 200 days to assist Service Provider with localization and context for activities and deliverables of 3.2.1 and 3.2.2. Total of \$40,000.
25	Workshop/training: Expenses for hosting 12 workshops on the integrating climate change risks into the private sector (3.2.1) Estimated 50 attendees per seminar, Cost per seminar \$1,500.
	Workshop/training: Expenses for hosting quarterly (12) forums between gov and priv sector (3.2.3). Estimated 50-75 attendees per seminar, Cost per seminar \$1,500.
26	Travel Costs - Flights: NC10 for 6 domestic flights to Dashoguz @ \$100 each = \$600
	Travel Costs - DSA: NC10 30 days x \$62
27	Audio Visual and Printing: Expenses for designing and printing information products (physical booklets and online versions). Total \$15,000.
	Audio Visual Equip & Communication services for 12 workshops @ \$400 per day. Total \$4,800.
28	Service Contract - Individual: Project Manager 25% of annual salary of \$37,250 = \$9,313 p/a to oversee day-to-day operational aspects of the project. The remaining 75% is in budget note line 1 for contributing to the technical aspects of the implementation of the project.
	Service Contract - Individual: Project Support Assistant (PSA) 1/3 of annual salary of \$20,250 = \$6,682 p/a to oversee day-to-day operational aspects of the project. The remaining 2/3 (66.6%) is in budget note line 1.
	Total combined p/a costs for PM and PA for project management activities is \$15,995.
29	Services to Project: Budget to cover costs for various project management functions provided by UNDP Country Office that include finance, human resources, administrative and procurement services, payroll management, payments, travel services, consultant recruitments, procurement of goods and services, etc. Costs for various project management functions will be charged based on the UNDP universal price list. \$12,000 p/a.
30	Costs of office rental including utilities \$3,000 a year.
31	Travel costs are for domestic travel of PM and or PA. Estimated at 1 trip per quarter to Dashoguz and perhaps other locations.
32	Office supplies for project management team \$500 per annum.
33	Information technology equipment for Project Manager, and Project Assistant. 2 computers @ \$1,500 each, 2 mobile phones @ \$250 each, 1 printer @ \$200. Total of \$3,700
34	Expenses for mobile phone and internet service for PM and PSA @ \$500 per annum each. Total of \$3,000.
35	Professional Services to conduct annual audits of the project @ \$3,000 p/a. This budget will be utilized only if the GCF project receives an external audit conducted by a third-party auditor (excluding UN Board of Auditors), or otherwise reprogrammed towards the achievement of the approved activities, in consultation and agreement with the Project Board and GCF.

5.2 Procurement Plan

For goods, services, and consultancies to be procured, please list the items, descriptions in relation to the activities in Section 3, estimated cost, procurement method, relevant threshold, and the estimated dates. Please include the procurement plan for at least the first tranche of disbursement requested below and provide a full procurement plan for the entire duration of the implementation period if available at this stage.

Item	Item Description	Estimated Cost (US\$)	Procurement Method	Thresholds (Min-Max monetary value for which indicated)	Estimated Start Date	Projected Contracting Date
Goods and Non-Consulting Services						
Travel	Flights and DSA for International and National Consultants as well as the PMU	108,262	Direct procurement / Estimated cost is cumulative so specific procurements for flights will be via Direct Procurement	Below US\$10,000	Y1/Q1	Y1/Q1 – Y3/Q4
Workshops	1.1.1 and 1.1.3 Expenses for renting facilities for seven workshops.	10,500	Direct procurement / Estimated cost is cumulative so specific procurements for workshops will be via Direct Procurement	Below US\$10,000	Y1/Q1	Y1/Q1 - Y3/Q2
Workshops	Expenses for hosting 30 days of workshops of Output 3.1.	45,000	Direct procurement / Estimated cost is cumulative so specific procurements for workshops will be via Direct Procurement	Below US\$10,000	Y1/Q2	Y1/Q2 - Y3/Q4
Workshops	Expenses for hosting 12 workshops on the integrating climate change risks into the private sector (2.2.1)	36,000	Direct procurement / Estimated cost is cumulative so specific procurements for workshops will be via Direct Procurement	Below US\$10,000	Y1/Q3	Y1/Q3 - Y3/Q4
Audio Visual & Printing	Audio Visual equip, printing and translation services for 7 workshops	5,250	Direct procurement / Estimated cost is cumulative so specific procurements for AVP will be via Direct Procurement	Below US\$10,000	Y1/Q1	Y1/Q3 – Y3/Q4
Audio Visual & Printing	Audio Visual Equip & Communication services for 30 days of workshops @ \$400 per day.	12,000	Direct procurement / Estimated cost is cumulative so specific procurements for AVP will be via Direct Procurement	Below US\$10,000	Y1/Q2	Y1/Q2 – Y3/Q4
Audio Visual & Printing	Expenses for designing and printing information products (physical booklets and online versions).	19,800	Direct procurement / Estimated cost is cumulative so specific procurements for AVP will be via Direct Procurement	Below US\$10,000	Y1/Q3	Y1/Q3 - Y3/Q4
Office Supplies	Office supplies for project management team	1,500	Direct procurement	Below US\$10,000	Y1/Q1	Y1/Q1 - Y3/Q4
Communications and Audio-Visual Equipment	2 mobile phones and expenses for mobile phone and internet service	3,000	Direct procurement	Below US\$10,000	Y1/Q1	Y1/Q1 – Y3/Q4
IT Equipment	Information technology equipment for PM and PSA. 2 Laptops with docking stations	3,750	Direct procurement	Below US\$10,000	Y1/Q1	Y1/Q1 – Y3/Q4
Sub-Total (US\$)		245,062				
Consultancy Services						
SUB-OUTCOME 1.1						

Local Consultant	Institutional review and design consultant	24,000	Open tender / Competitive process. Desk review.	US\$10,000 - US\$99,000	Y1/Q1	Y1/Q1 - Y2/Q1
Local Consultant	Workshop design and delivery consultant	8,000	Open tender / Competitive process. Desk review.	Below US\$10,000	Y1/Q4	Y1/Q13 - Y3/Q1
Local Consultant	M&E specialist	4,000	Open tender / Competitive process. Desk review.	Below US\$10,000	Y1/Q3	Y1/Q3 - Y2/Q1
International Consultant	Institutional review and design expert	72,000	Open tender / Competitive process. Desk review.	US\$100,000 - US\$999,000	Y1/Q1	Y1/Q1 - Y2/Q1
International Consultant	Workshop design and delivery consultant	24,000	Open tender / Competitive process. Desk review.	US\$10,000 - US\$99,000	Y1/Q3	Y1/Q3 - Y3/Q1
International Consultant	Terminal Evaluation expert	12,000	Open tender / Competitive process. Desk review.	US\$10,000 - US\$99,000	Y3/Q2	Y3/Q3 - Y3/Q4
		144,000				
SUB-OUTCOME 1.2						
Local Consultant	Consultant for the development of the adaptation components of the NDC	40,000	Open tender / Competitive process. Desk review.	US\$10,000 - US\$99,000	Y1/Q3	Y1/Q4 - Y2/Q4
International Consultant	Consultant for the development of the adaptation components of the NDC	120,000	Open tender / Competitive process. Desk review.	US\$100,000 - US\$999,000	Y1/Q3	Y1/Q4 - Y2/Q4
		160,000				
SUB-OUTCOME 2.1						
Service Contract - Company	To conduct climate risks assessments of the water sector	100,000	Open tender / Competitive process. Desk review.	US\$100,000 - US\$999,000	Y1/Q4	Y1/Q4 - Y2/Q4
Service Contract - Company	To analyze and prioritize climate risk assessments for action	25,000	Open tender / Competitive process. Desk review.	US\$10,000 - US\$99,000	Y2/Q2	Y2/Q2 - Y3/Q2
Service Contract - Company	To analyze water related policies and propose recommendations for improving the integration of climate risks	35,000	Open tender / Competitive process. Desk review.	US\$10,000 - US\$99,000	Y2/Q2	Y2/Q1 - Y3/Q1
Local Consultant	Analyze water related policies and proposes recommendations for improving the integration of climate risks.	12,000	Open tender / Competitive process. Desk review.	US\$10,000 - US\$99,000	Y1/Q2	Y1/Q2 - Y1/Q4
Local Consultant	Expert for climate risks assessment	24,000	Open tender / Competitive process. Desk review.	US\$10,000 - US\$99,000	Y1/Q2	Y1/Q2 - Y1/Q4
Local Consultant	Expert for climate risks assessment	24,000	Open tender / Competitive process. Desk review.	US\$10,000 - US\$99,000	Y1/Q2	Y1/Q2 - Y1/Q4
		220,000				
SUB-OUTCOME 2.2						

Service Contract - Company	To develop a list of priority gender-sensitive adaptation investment themes with specific actions.	50,000	Open tender/ Competitive process. Desk review.	US\$10,000 - US\$99,999	Y2/Q2	Y2/Q2 - Y3/Q2
Service Contract - Company	To develop two GCF quality concept notes that include a pre-feasibility report and considers ESS and Gender.	80,000	Open tender/ Competitive process. Desk review.	US\$10,000 - US\$99,999	Y2/Q2	Y2/Q2 - Y3/Q2
Local Consultant	Natl consultant to conduct a survey or existing adaptation interventions.	12,000	Open tender/ Competitive process. Desk review.	US\$10,000 - US\$99,999	Y2/Q2	Y2/Q2 - Y2/Q4
Local Consultant	Natl consultant to develop a list of priority gender-sensitive adaptation investment themes with specific actions.	16,000	Open tender / Competitive process. Desk review.	US\$10,000 - US\$99,999	Y2/Q2	Y2/Q2 - Y2/Q4
Local Consultant	Natl Consultant to work with ICs to develop four concept notes.	8,000	Open tender/ Competitive process. Desk review.	Below US\$10,000	Y3/Q1	Y3/Q1 - Y3/Q4
		166,000				
SUB-OUTCOME 3.1						
Service Contract - Company	To scope, design and deliver training sessions for adaptation planning in the water sector	45,000	Open tender / Competitive process. Written request for quotation	US\$5,000 to 149,999	Y1/Q2	Y1/Q2 - Y3/Q4
Service Contract - Company	To provide training to the relevant GoT stakeholders on the optimal use of existing interventions.	35,000	Open tender / Competitive process. Written request for quotation	US\$5,000 to 149,999	Y1/Q2	Y1/Q2 - Y2/Q2
Service Contract - Company	To provide training to integrate adaptation into water planning and training of the trainers	50,000	Open tender / Competitive process. Written request for quotation	US\$5,000 to 149,999	Y1/Q4	Y1/Q4 - Y3/Q4
Local Consultant	Natl consultant to support workshop design and delivery	44,000	Open tender/Competitive process. Desk review.	US\$10,000 - US\$99,999	Y1/Q4	Y1/Q4 - Y3/Q4
		174,000				
SUB-OUTCOME 3.2						
Service Contract - Company	To develop and deliver a total of 12 seminars to deliver content for information products	48,000	Open tender / Competitive process. Written request for quotation	US\$5,000 to 149,999	Y2/Q1	Y2/Q1 - Y3/Q4
Service Contract - Company	To develop content and design for information products	20,000	Open tender / Competitive process. Written request for quotation	US\$5,000 to 149,999	Y2/Q1	Y2/Q1 - Y3/Q4
Local Consultant	National Consultant to assist service providers	40,000	Open tender/Competitive process. Desk review.	US\$10,000 - US\$99,999	Y2/Q1	Y2/Q1 - Y3/Q4
		108,000				
Sub-Total (US\$)		\$ 972,000				