United Nations Development Programme

Project Document for projects financed by the Green Climate Fund

Project title: *Enhancing Multi-Hazard Early Warning System to increase resilience of Uzbekistan communities to climate change-induced hazards*		
Country(ies): *Uzbekistan*	**Implementing Partner (GCF Executing Entity):** Ministry of Emergency Situations of the Republic of Uzbekistan	**Execution Modality** *National Implementation Modality (NIM)*
Contributing Outcome (UNDAF/CPD, RPD, GPD): **UNDSDCF** *Outcome 5.* By 2025, most at-risk regions, and communities of Uzbekistan, especially the most vulnerable people, are more resilient to climate change and disasters and benefit from increasingly sustainable and gender-sensitive efficient management of natural resources and infrastructure, enhanced climate action, inclusive environmental governance and protection. **CPD:** *Output 4.3.* Integrated gender-responsive climate and disaster risk governance systems strengthened through enhanced multi-hazard early warning (MHEWS) and rapid recovery. **UNDP SP:** *Output 3.3.1.* Evidence-based assessment and planning tools and mechanisms applied to enable the implementation of gender-sensitive and risk-informed prevention and preparedness to limit the impact of natural hazards and pandemics and promote peaceful, just and inclusive societies.		
UNDP Social and Environmental Screening Category: Moderate	**UNDP Gender Marker:** GEN2	
Atlas Award ID: 00120487	**Atlas Project/Output ID: 00116677**	
UNDP- PIMS ID number: 6218	**GCF Project ID number:** *SAP022*	
LPAC meeting date: 17 June 2021		
Planned start date: *19 July 2021*	**Planned end date:** *19 July 2027*	
Expected date of posting of Mid-Term Review to ERC – *19 October 2024*	**Expected date of posting Terminal evaluation report to ERC:** *19 January 2028*	
Brief project description: Climate change has been leading to more frequent and more intense hydrometeorological disasters resulting in greater exposure and impact e.g., the economic effect of flooding in Uzbekistan due to climate change can be estimated at US$ 236 million. Uzbekistan sets climate change adaptation as a priority in its first Nationally		

Determined Contribution under the Paris Agreement highlighting the need to establish a Multi-Hazard Early Warning System (MHEWS). Accordingly, this project will respond to the critical need for modernization of the country's early warning system into an impact-based MHEWS (initially focused on floods, mudflows, landslides, avalanches and hydrological drought in the more populous and economically important eastern mountainous regions of Ferghana Valley), an essential element of the country's climate risk management framework. In the face of increasing climate risks, this system will serve to enhance the climate resilience of the people of Uzbekistan (indirect beneficiaries), including the most vulnerable and poor rural communities living in mountainous areas currently at risk from climate-induced hazards.

Consequently, ***the project objective*** is to enhance the efficiency and coverage of an MHEWS for climate change-induced hazards in Uzbekistan given the projected climate change impacts. The approach combines principles articulated in the Global Framework for Climate Services with a 'value-chain' approach to target specific weaknesses in the delivery of early warning services, given the specific modes of operation, current infrastructure, technical capacities and institutional arrangements. The project will introduce the impact-based MHEWS based on the socio-economic risk modelling and will explore and facilitate elements of forecast-based financing as an innovative paradigm-shifting approach to the use of climate data in decision-making. More specifically, *Output 1* will address the first element by investing in the automatic hydro-meteorological monitoring infrastructure required for the generation of hazard-specific forecasting and risk models. *Output 2 and Output 3* will focus on building the systems and modelling capacity to generate impact-based forecasts creating dissemination channels to first responders and communities through updated communication technologies to enable real-time risk analysis and evaluation, as well as working with communities at risk to be able to interpret, understand and react to those warnings.

The project will directly benefit over 11 million people living in high-risk areas of Uzbekistan (34% of the population), whereas the project investment in EWS in Uzbekistan will lead to at least a 3% reduction in damages due to the hazard (3% effectiveness). The project investment will lead to avoided damage from mudslide (60% lives saved) and drought (3% loss saved) owing to improved methods and capacities for monitoring, modelling and forecasting climate hazards and risks supported with satellite-based remote sensing. As a result, the project will significantly enhance the quality and timeliness of climate and disaster-related information available to decision-makers and the dissemination of such information to the population of 32.39 million people (approx. 50% increase in the warning lead time and 50% reduction in the warnings delivery time), thus contribute to avoided household income loss (1% avoided damage due to climate information) and increased resilience and enhanced livelihoods of the most vulnerable people, communities in these regions, and to the increased resilience of health and well-being, food and water security in Uzbekistan.

FINANCING PLAN	
GCF grant	**USD 9,999,455**
UNDP TRAC resources *(only if included in the TBWP for this specific GCF project)*	USD 0
Confirmed cash co-financing to be administered by UNDP	USD 0
(1) Total Budget administered by UNDP	**USD 9,999,455**
CONFIRMED (PARALLEL) CO-FINANCING (*ALL OTHER CO-FINANCING THAT IS NOT CASH CO-FINANCING ADMINISTERED BY UNDP); INDICATE ALSO FINANCIAL INSTRUMENT*	
UZHydromet (grant)	*1,215,789 USD*
UZHydromet (in-kind)	*2,979,716 USD*
MES (grant)	*25,126,875 USD*
MES (in-kind)	*1,317,500 USD*

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(2) Total confirmed co-financing	**30,639,880 USD**
(3) Grand-Total Project Financing (1) +(2)	**USD 40,639,335**

SIGNATURES

Signature: Mr. Azizbek Ergashev Ministry of Emergency Situations of the Republic of Uzbekistan	**Agreed by Implementing Partner**	**Date/Month/Year:** 12 October 2021
Signature: Mr. Sherzod Habibullayev, General Director of the Centre of Hydrometeorological Services of the Republic of Uzbekistan	**Agreed by Implementing Partner**[1]	**Date/Month/Year:** 12 October 2021
Signature: Ms. Matilda Dimovska UNDP Uzbekistan Resident Representative	**Agreed by UNDP**	**Date/Month/Year:** 12 October, 2021

Disbursement: Government is aware of the conditions of disbursement ascribed to the first and subsequent tranches of the GCF funding as specified in the FAA (and in particular Clause 9 of the FAA). To the extent that these obligations reflect actions of the Government, the Government must ensure that the conditions are met and there is continuing compliance, as well as understanding that availability of GCF funding is contingent on meeting all conditions listed in the FAA.

[1] Other evidence of government agreement may be accepted in lieu of a signature, unless the programme country government requires a signature.

Abbreviations

ADB	Asian Development Bank
AF	Adaptation Fund
AMA	Accreditation Master Agreement
APR	Annual Performance Report
AWS	Automatic Weather Stations
CACILM	Central Asia Countries Initiative for Land Management
CAHM Project	Central Asian Hydro-Meteorological Project
CAMP4ASB	Climate Adaptation and Mitigation Program for Aral Sea Basin
CBMHRM	Community-based Multi-hazard Risk Management
CIMO	Commission for Instruments and Methods of Observation
CIS	Commonwealth of Independent States
COP 25	The 2019 United Nations Climate Change Conference
CPD	Country Programme Document
CQS	Consultants Qualifications Selection
CRM	Climate Risk Management
DEWS	Drought Early Warning System
DJF	December January February
DOA	Delegation of Authority
DRR	Disaster Risk Reduction
DRM	Disaster Risk Management
EBRD	European Bank for Reconstruction and Development
ENSO	El Niño–Southern Oscillation
ERC	Evaluation Resource Center
EWS	Early Warning Systems
EU	European Union
FAA	Funded Activity Agreement
FAO	Food and Agriculture Organization
FBF	Forecast-based Financing
FBS	Fixed Budget Selection
FOCRAII	Forum on Regional Climate Monitoring-Assessment-Prediction for Asia
FS	Feasibility Study
GBON	Global Basic Observing Network
GCF	Green Climate Fund
GCOS	Global Climate Observing System
GDP	Gross Domestic Product
GEF	Global Environment Facility
GFCS	Global Framework for Climate Services
GIZ	German Corporation for International Cooperation
GoU	Government of Uzbekistan
GTS	Global Telecommunication System
ICT	Information and Communication Technology
IFIs	International Financial Institutions
IMS	Information Management System
IT	Information Technology
ITB	Invitation to Bid
JICA	Japan International Cooperation Agency
KOICA	Korea International Cooperation Agency
LCS	Least Cost Selection
LOA	Letter of Agreement
LPAC	Local Project Appraisal Committee
MAM	March April May
MAWR	Ministry of Agriculture and Water Resources of the Republic of Uzbekistan
MES	Ministry of Emergency Situations of the Republic of Uzbekistan
MHEWS	Multi-hazard Early Warning System
MHSSE	Ministry of Higher and Secondary Special Education of the Republic of Uzbekistan
MIFT	Ministry of Investments and Foreign Trade of the Republic of Uzbekistan

MoEI	Ministry of Economy and Industry of the Republic of Uzbekistan
MOF	Ministry of Finance of the Republic of Uzbekistan
MoH	Ministry of Health of the Republic of Uzbekistan
MPE	Ministry of Public Education of the Republic of Uzbekistan
NAO	North Atlantic Oscillation
NCE-VF	Nature, Climate, Environment – Vertical Funds
NDC	Nationally Determined Contribution
NEACOF	North Eurasia Climate Outlook Forum
NFCS	National Framework for Climate Services
NGOs	Non-governmental Organizations
NIM	National Implementation Modality
PB	Project Board
PIMS	Project Information Management System
PMU	Project Management Unit
POPP	Programme and Operations Policies and Procedures
PPP	Public-Private-Partnership
QA	Quality Assurance
QBS	Quality Based Selection
QC	Quality Control
QCBS	Quality Cost Based Selection
RCMCs	Regional Crisis Management Centers
RFQ	Request for Quotation
SAP	Simplified Application Procedure
SCEEP	State Committee for Ecology and Environment Protection
SEPRS	State Emergency Prevention and Response System
SMS	Short Message Service
SNC	Second National Communication
SON	September October November
SOPs	Standard Operating Procedures
SPEI	Evapotranspiration Index
SPI	Standardized Precipitation Index
SSMHGP	State Service of the Republic of Uzbekistan on Monitoring of Hazard Geologic Processes
SSTrC	South-South and Triangular Cooperation
TE	Terminal Evaluation
TNC	Third National Communication
WHO	World Health Organization
WMO	World Meteorological Organization
WMO RSMC	WMO Regional Specialized Meteorological Centre
WMO/TD	WMO/Technical Document
UNDP	United Nations Development Programme
UNDP SP	UNDP Strategic Plan
UNEP	United Nations Environmental Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNICEF	United Nations International Children's Emergency Fund
UNSDCF	United Nations Sustainable Development Cooperation Framework
USAID	US Agency for International Development
Uzhydromet	Center of Hydrometeorological Service of the Republic of Uzbekistan

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II. DEVELOPMENT CHALLENGE

Uzbekistan is a lower-middle-income, landlocked country located in the heart of Central Asia and it is ranked high (24th) in the global natural disaster hotspots list compiled by the WB, with 9.3% of the total country area at risk, 65.6% of the population living in risk exposed areas, and 65.5% of the national GDP (USD 12 billion annually) generated from areas at risk[2]. Climate change-induced hazards cause loss of lives and significant economic damages and losses with floods and mudflows dominating the hazard profile. Approx. 8 million people (26% of the population) are affected by mudflows, 80% of which occur in the foothills and high mountainous areas and are caused by heavy rainfall. Most damages occur in economically strong and flooding-prone provinces in the east, particularly Andijan and Ferghana, two of the project target regions, which on average lose 3% and 2% respectively of annual GDP to flooding[3]. Based on the preliminary economic analysis[4], the economic impact of flooding in Uzbekistan due to climate change can be estimated at USD 236 million. But, the 20-year return period loss for all hazards is USD 623 million (2.8 per cent of GDP), while the 200-year return period loss is USD 2.13 billion (9.5 per cent of GDP), though this is based mostly on damages due to earthquakes. Landslides in spring and avalanche hazards during winter are also significant risks in the country's eastern mountain and foothill areas (particularly along with significant transport links e.g. the Tashkent-Osh highway). Almost 90% of the country's water resources originate from eastern mountain catchments located in neighbouring countries and supplied by rainfall, melting snow and glacial ice. Two major river systems - the Amu Darya and the Syr Darya – constitute 95% of the surface water flow. Mudflow, landslide and flooding risks are most prevalent in the east, with drought affecting the whole country, especially the more arid western areas. Given the high concentration of people, economic activities, and several climate-related hazards (floods, mudflows, landslides and avalanches), the Ferghana valley is subject to high climate-related disaster risks.

Climate change drivers of vulnerability: Climate change is expected to increase the intensity and frequency of hydrometeorological disasters – droughts, floods, mudflows, landslides and storms while significantly pressuring the resilience texture of the society and the communities. The annual average temperature increase since the 1950s is twice the global average (0.27ºC per decade) and has led to accelerated evapotranspiration and caused changes in the timing and zones of snow and ice melt, changes in river flows and increased risk of droughts, floods, mudflows and avalanches. Increases in rainfall intensity lead to increased risk of flooding, mudflow and rainfall-induced landslide risks over the eastern mountain and foothill regions. Glaciers presently contribute up to 70% of the water flow in some of the river systems during summer and these climate impacts, will drastically alter the regional hydrological cycle, exacerbating existing water scarcity problems and water-related conflicts. In the short-term period, the rate of glacial melting will increase due to temperature rises, initially leading to increased river flows, flooding, mudslides and soil erosion. In the long-term, however, the decline in glacier volumes is predicted to reduce the flow of the Amu-Darya River and tributaries of the Syr-Darya and Zeravshan Rivers by 25 – 30%[5]. Reductions will be particularly severe in hot, dry years when it is predicted that there will be up to a 70% reduction in river flows.

Through the GCF readiness support programme, an assessment of expected climate changes and climate-included hazards in Uzbekistan was conducted by Columbia University using an ensemble of CMIP5 models (see Appendix 2 of FS). It clearly shows that climate changes are expected to increase both the frequency and spatial extent of climate-related hazards (potentially occurring in areas not previously prone to such hazards), thereby increasing demands on the ability of MES, Uzhydromet and other government agencies to monitor and forecast them ahead of time, as well as forewarn affected populations, businesses and sectoral activities. Warming temperatures are likely to increase the frequency and magnitude of heatwaves, as well as evapotranspiration from ecosystems and agricultural lands with earlier drying overall but wetter conditions in the west by the middle and end of the century. Overall wetter conditions increase flood hazards in winter and spring and models indicate a clear signal of increasing heavy precipitation events that are associated with a flash flood, mudflow and landslide hazards. A more vigorous water cycle will also lead to greater interannual and intraseasonal variations between drought and flood events. Warmer temperatures reduce overall snowpack and it will be particularly important to be able to track the transitional zone between solid and melting snow as it moves to higher altitudes with warmer temperatures, potentially exposing new areas to mudflow, landslide, and snow

[2] HTTP://DOCUMENTS1.WORLDBANK.ORG/CURATED/EN/621711468175150317/PDF/344230PAPER0NA101OFFICIAL0USE0ONLY1.PDF

[3] https://tinyurl.com/5ekdy64d and outlined in Section 5 of the PFS.

[4] Submitted as Annex X in the GCF Funding Proposal (Economic and Financial Analysis, January 2021).

avalanche hazards. Another aspect is the ENSO impact on rainfall in Uzbekistan i.e., atmospheric circulation and precipitation affecting different sectoral impacts depending on the timing of changes.

National priorities and baseline: Agriculture accounts for 18.5% of the annual GDP in Uzbekistan and contributes to more than a quarter of the labour force in the country. A major problem causing the reduced agricultural productivity is inappropriate irrigation (both insufficient and over-irrigation) inadequately informed by climate information. Expected reductions in the availability of water supply in the main rivers will likely impact significantly the availability of irrigation water which currently consumes 90% of water resources. Similarly, higher than normal rainfall can cause problems with agriculture. These weather and climate-related impacts highlight the potential value that climate-hazard related knowledge can provide. Therefore, Uzbekistan's first Nationally Determined Contribution (NDC) under the Paris Agreement sets climate change adaptation as a priority for agriculture, water management, social protection, and protection of strategic infrastructure and production facilities and highlights the need to establish an MHEWS which will: raise awareness and improve access to information about climate change for all population groups and develop early warning systems for dangerous hydrometeorological hazards which will provide information for climate risk management.

Uzhydromet is responsible for weather forecasting, hydro-meteorological and agro-meteorological monitoring including monitoring of extreme weather events, the forecasting of water availability and climate research and operates and maintains a hydrometeorological observation network of 85 meteorological stations (75 manual and 10 AWS), 131 hydrological gauging stations (all manual), 3 doppler weather radars (Tashkent, Samarkand and Nukus), 64 observation points of atmospheric air pollution and 17 chemical labs for monitoring environmental pollution (see section 4.1 of the Feasibility Study. Whilst hydrometeorological stations are concentrated in the east, AWS is only found in the west and many eastern mountainous regions, which experience spatially heterogeneous rainfall and associated hazards, are not covered (see FS, section 4.1.2). Uzhydromet has demonstrated sufficient capacity to operate and maintain its existing network (but has not had access to capital to upgrade and expand these networks (e.g., radars) to cover all hazardous areas.

The (SEPRS) defines the system, roles and responsibilities related to the emergency monitoring, forecasting, prevention, early warning and response (EWS is one part of the SEPRS responsibilities). MES is the lead government entity responsible for the overall management, coordination and control over the State Emergency Prevention and Response System (SEPRS). When there is the risk of the hydrometeorological extreme event, Uzhydromet forwards warnings to the MES and other government bodies responsible for decision making. MES is responsible for the distribution of warnings to the population and taking measures to respond to disasters. Public agencies receive warnings about possible storm phenomena, mudflow or avalanches which can cause damage to transport and other communications. For the risk of drought and low water, warnings are forwarded by MAWR. The dissemination of hydrometeorological information in ministries and agencies is by fax and via the internet and the dissemination of warnings to the public are done via television, radio, newspapers, the website of Uzhydromet (www.meteo.uz), and SMS messages, with appropriate recommendations for addressing risks. During mudflows/avalanches, warnings are forwarded to all government bodies responsible for the operation and maintenance of roads and recreation activities. There is no systematic ongoing monitoring of risks in a single environment where all risks can be considered together, which reduces the capability to deal with and identify multi-hazard risks. Also, Uzbekistan's capacity to map, monitor and forecast climate risks, as well as act on this information, is severely limited with many extreme weather events being unreported or disaster data not being collected.

Furthermore, Uzbekistan lacks financial resources, knowledge and capacities at the system, institutional and individual levels to conduct multi-hazard, vulnerability and risk assessments, establish real-time monitoring, forecasting and early warning systems to make climate-informed decisions and implement climate-induced DRM measures. There is a significant financial gap between actual and required DRR and climate change adaptation investments. Both rural and urban populations and the government have low response and preparedness capacities. Especially, the women appear to suffer disproportionally from disasters not only due to uneven income distribution but also due to the lesser access to information, planning and decision making. Uzhydromet surveyed stakeholder ministries and departments in January-March 2017 and results of the survey confirmed that the modernization of the Uzhydromet is a critical and urgent task. These needs are articulated in SNCs, TNCs and NDC as well as in various DRR related policy documents and assessments.

Key barriers that must be addressed to achieve the long-term solution

- *Insufficient national technical capacities for hydro-meteorological monitoring, modelling, risk assessment and mapping:* Uzhydromet has insufficient technical capabilities; ageing and inadequate equipment and

software for data gathering and processing, inefficient data collection channels for real-time monitoring, risk assessment, mapping and impact forecasting based on the distribution of population, assets and infrastructure, limited coverage of the eastern mountainous part, lack of capacities for complex and data-intensive modelling and insufficient and project-based investments in equipment. Specific technical barriers in this sense include limited accessible, reliable and up-to-date monitoring data, limited use of remote sensing technologies, absence of modelling of climate-related hazards, insufficient information on transboundary risks and hazards (80% of floods and mudflows are formed outside of Uzbekistan) and absence of legal and institutional frameworks for cooperation between the National Hydrometeorological Services of the neighboring Central Asian states on the disaster data sharing and warning, and infrequent conduct of national and sub-national climate outlook forums.

- *Insufficient institutional and technical capacities for timely multi-hazard forecasting and early warning, as well as effective communication and dissemination of disaster-related information.* The generation and dissemination of hydrometeorological data are centralized at Uzhydromet, making it difficult for other ministries to directly access the data without an official request limiting the real-time applications and use of these data. The effectiveness of multi-hazard forecasting and early warning system thus relies on the capacity of Uzhydromet to translate hydrometeorological information into hazard-related information (e.g. hydrological drought, mudflow and flood occurrence etc.), and also on the capacity of MES to coordinate the dissemination and inter-agency responses of multi-hazard forecasting and early warning, using various communication channels at national and regional levels. Also, MES requires its regional offices to seek previous approval from the central office before responding to any reported hazards, which slows down response times. Furthermore, warnings and advisories are not user-friendly, forecasts are not always indicating the potential areas at risk, the messages are not geographically specific and the warnings do not contain specific information on the potential impact and risk magnitude to trigger an adequate response on the community level. These lead to a reactive (ex-post) response to disasters instead of having the proactive (ex-ante) approach. Especially in the eastern parts of the country, there were limited interactions with communities on how to interpret and respond to warnings on climate-related hazards. Also, the warnings and advisories are not tailored per the needs of the vulnerable groups of citizens e.g. women, youth, elderly, people with disabilities, etc.

Key gaps that will be tackled need to be tackled through GCF investments and co-financing:

- Lack of ICT facilities, equipment and access to critical and up-to-date information of climate-induced hazards and response measures, as well as information boards within the RCMCs;
- Limited skilled and qualified staff to run/programme hazard forecast models, manage IT systems and utilize tools for dynamically assessing risks (combining with vulnerable populations, assets and infrastructure);
- Regulations and inter-agency coordination are largely based on information gathered through disaster-management structures e.g. Mahalas (local social institutions, serving as the link between central government and communities), and the media, as well as reports through different ministries.
- Currently, the revenue generation of specialized hydrometeorological services at Uzhydromet[6] (refer to FS section 4.1.1) makes up only 6.5-8.3% of its annual budget, with civil aviation and transportation being the largest customers. Uzhydromet has developed clear income streams yet paid services are infrequent.
- Dissemination of warnings, alerts and "last-mile" communication to targeted areas and populations: mobile subscribers in the potential location are not targeted and public information boards are only found in a few locations and do not cover all high-risk areas; and
- Communities have limited capacities to effectively utilize and understand climate hazard-related information and advisories, including their options in responding to a hazard, especially the vulnerable groups of citizens being hit the hardiest.

The GoU has been prioritizing disaster prevention work over the past decade through the gradual enhancement of the hydro-meteorological monitoring capacities and resettlement of populations in high-risk areas. Consequently, the overall losses of life from natural disasters has been falling. However, this work has been constrained due to the lack of capacities and access to modern risk assessment, monitoring and forecasting technologies. Continuous population growth and expansion of infrastructure increase risks due to climate-driven extreme events (in which climate change is increasing). This requires a more efficient and timely approach to i) the generation of warnings (most hazards are fast onset events which require real-time monitoring and forecasting to act ex-ante); ii) climate risk management (monitoring and forecasting new areas which are either not currently observed through ground-based technologies or the impacts are not modelled); iii) risk knowledge (which needs to quickly identify people, assets and infrastructure at risk in light of immediate information on

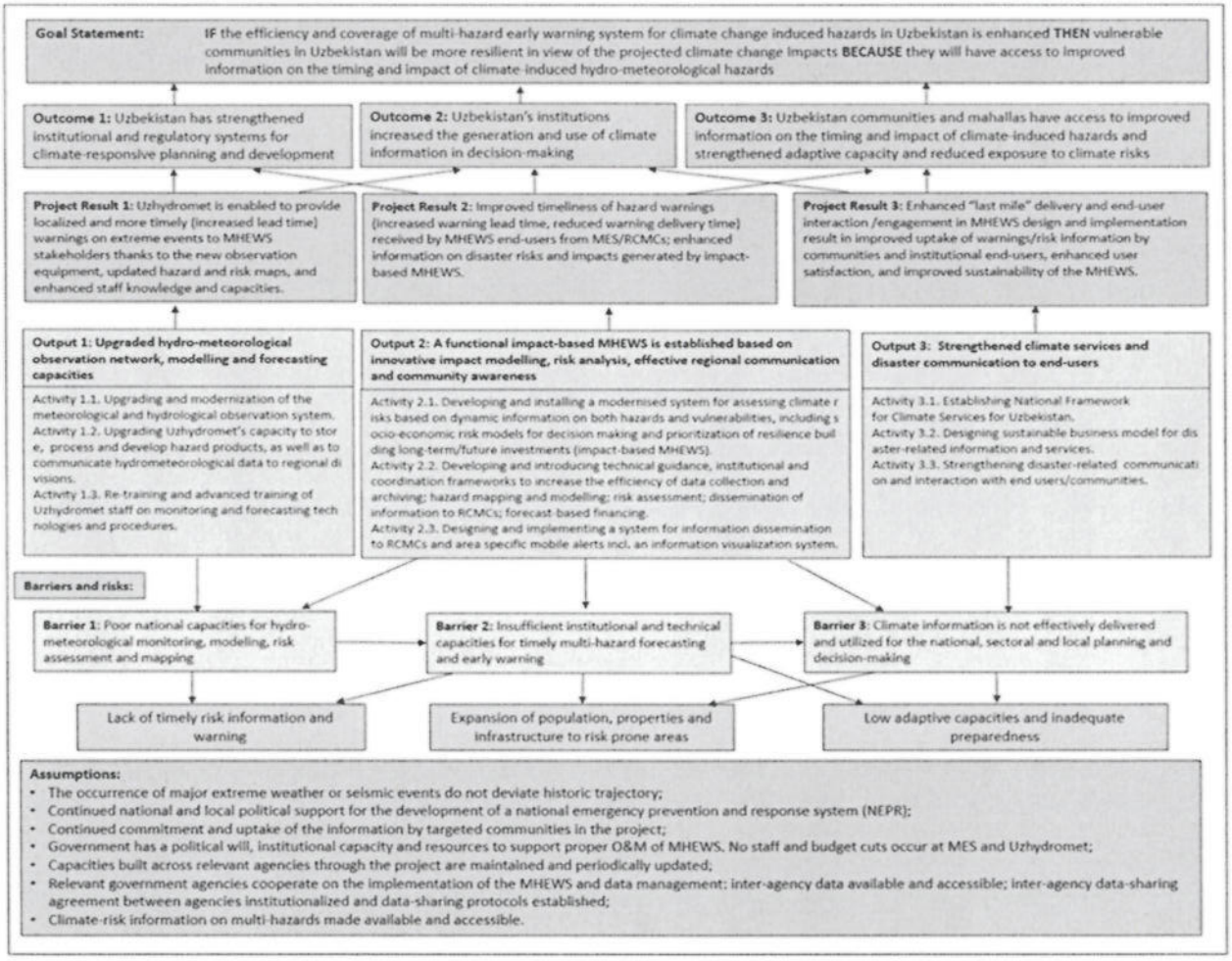
[6] Submitted as Annex X in the GCF Funding Proposal (Economic and Financial Analysis, January 2021)

impacts/hazards); iv) application of modern information and communication technologies; v) co-development and understanding of warnings and information with communities

III. STRATEGY

Consequently, the **project objective** is to enhance the efficiency and coverage of an MHEWS for climate change-induced hazards in Uzbekistan given the projected climate change impacts. The approach combines principles articulated in the Global Framework for Climate Services with a 'value-chain' approach to target specific weaknesses in the delivery of early warning services, given the specific modes of operation, current infrastructure, technical capacities and institutional arrangements. The project will introduce the impact-based MHEWS based on the socio-economic risk modelling and will explore and facilitate elements of forecast-based financing as an innovative paradigm-shifting approach to the use of climate data in decision-making.

Figure - Theory of Change Diagram



The project will transform the current risk management and EWS in Uzbekistan by introducing new innovative technologies, increasing the efficiency and cost-effectiveness of the EWS leading to a paradigm shift through many advances that will contribute to overcoming the identified barriers:

- Reduced losses of lives and economic losses in the face of climate change;
- A better understanding of risks and their economic costs (losses and damages);
- Reduced costs for climate monitoring infrastructure (increased reliance on remote sensing);
- Increased use of satellite data/imagery for monitoring areas inaccessible to ground-based observations and replacing the costly ground observations and promoting regional coordination and data sharing. • Increases in the timeliness of monitoring observations and forecasts (increased warning lead time) will increase the efficiency of warnings and the likelihood that they will be received in time to act;
- The establishment of a central repository for hydrometeorological hazard and risk information that integrates automatically transmitted data from different providers/manufacturers with quality control/assurance and allows further interrogation via geo-visualization software;
- Development of improved hazard modelling and risk mapping capabilities will lead to clearly identified areas at risk (more targeted warnings);
- Introduction of a socio-economic risk and vulnerability modelling as an integral element of the impact-based multi-hazard EWS and that is gender-sensitive;
- The establishment of a series of guidance and protocols - including a national to regional EWS protocol, and communication protocols will increase the institutional coordination capability among MES, Uzhydromet and other relevant government agencies, and support an integrated approach to long-term climate, socio-economic risk planning and decision-making;
- Development of information and communication systems at RCMCs will enable them to undertake pro-active planning and response measures;
- Development of a sustainable business model for hydromet information services;
- Effective dissemination of warnings, alerts and "last-mile" communication to targeted areas and populations (50% reduction in warning delivery time) with consideration of gender, age and other potential vulnerability factors, and empowering sectoral stakeholders to engage in climate risk management and climate change adaptation;
- Enhanced preparedness building upon high quality and timely climate-related risk information; and
- Improved WMO categorization of Uzbekistan in climate forecast and climate services.

The project will enable a paradigm shift in MES's approach to climate and DRM, focusing on prevention rather than a reaction to disasters and high impact events. To enable this the project focusses on parts of the MHEWS value chain that can be speeded up (automatic data collection and processing, development of key SOPs, dissemination via mobile phones etc.) and developing missing components (translation of weather information into hazard/impacts, risk analyses based on vulnerable populations and infrastructure). By contributing to a culture of managing climate risk on an ongoing basis and ahead of time, the project will lead to a paradigm shift in the attitudes of the government and communities to identifying low-risk areas for future expansion/development. Besides, the Impact-based forecast and warning services have also been identified as a high priority by WMO to increase the relevance and utility of forecasts and warnings. The Project will implement impact-based forecasting and MHEWS in Uzbekistan and will explore and facilitate enabling environment for forecast-based action and forecast-based financing.

Enabling environment for future scale-up investment through demonstration of the benefits of improved warnings and communications and replication in other parts of the country, as well as directly linking hydrometeorological data with hazard warnings for better directing future investments. ***Socio-economic co-benefits*** through improved knowledge on losses and damages from different climate-related hazards, the project will help the GoU to reduce and optimize budget spending, improving the use of public funds for disaster preparedness and recovery. Through improved risk knowledge and hazard forecasting capacity, as well as strengthened "last-mile" delivery and community outreach efforts, a functional impact-based MHEWS will contribute to increased resilience and enhanced livelihoods of the most vulnerable people, communities and region in Uzbekistan. ***Environmental co-benefits*** through enabling the timely assessment of hazards, identification of risk areas and provision of much-needed information of such disastrous events, spilling over effects of the existing hazards into other environmental

challenges will be prevented e.g. land degradation, biodiversity loss, the Aral Sea crisis, industrial and uranium waste in the Ferghana Valley, etc.

Country Ownership - The Project originates from consultation with the GoU and is based on the national request to support the establishment of an early warning system and it is fully country-driven. All national strategies related to climate change adaptation, disaster risk reduction and natural resource management, including the first NDC, clearly prioritize the establishment of the efficient national climate risk monitoring and early warning system. Most notably, multiple national resolutions and decrees have been issued to advance the development of a state system for early warning and emergency responses, including:

- *"State Program on Prediction and Prevention of Emergency situations"* #71 of 03.04.2007, which includes forecasting of possible emergencies, in particular natural disasters, development of coordination mechanisms of emergency risk management, the establishment of an early warning and information system;
- Resolution of the Cabinet of Ministers of the Republic of Uzbekistan *"On further improvement of state emergency prevention and response system of the Republic of Uzbekistan"* from 24 August 2011 No. 242;
- Decree No. 5066 on 1 June 2017, sets the agenda for developing a new approach to monitoring and forecasting natural hazards responsible for creating emergency situations; and
- *Decree No. 601 by the Cabinet of Ministers on Aug 8, 2017*, outlines the structure of the national early warning system for natural hazards, including an automated system for disseminating alerts and warnings. It also provides the legislative basis for the establishment of regional crisis management centres as well as the mandate of MES to operate, maintain equipment and to set aside funds/revenues for IT system and communications, and requesting the use of privately owned telecommunication facilities in an emergency.

Besides, it is aligned with national DRM strategy (Uzbekistan's national strategy and Action Plan for achieving the goals under the Sendai DRR Framework[7]) including the provision for development and implementation of advanced technologies and engineering and technical means for emergency response; creation and development of systems for forecasting and monitoring of emergencies; organization, development and maintenance of management, notification and communication systems in constant readiness and improvement of the system of training of managers and the population in emergency situations. Furthermore, the project is aligned with the "Development Strategy Framework of the Republic of Uzbekistan by 2035" and the "Five-Area Development Strategy for 2017-2021" especially in the priority area V (5.1. Priority areas in the field of security, religious tolerance and inter-ethnic harmony: items 5 and 6 i.e. prevention of ecological effects that cause damage to the environment, health and gene pool of the population and improving the system of prevention and elimination of consequences of emergencies).

In November 2020 the Government of Uzbekistan adopted a new Resolution No. 4896 "On measures to enhance the performance of the Centre for hydrometeorological service of Uzbekistan" which outlines a strong commitment of the GoU to modernize and strengthen hydromet service delivery and includes above all a roadmap for technological and institutional modernization, improved human capacities, strengthened budget and non-budgetary financing, improved revenue generation opportunities and partnership with sectoral stakeholders. This Resolution reconfirms the strong GoU ownership over and commitment to the GCF project. The country ownership is also confirmed through co-financing commitments provided by MES and Uzhydromet for both project implementation and operations and maintenance costs.

[7] Cabinet Resolution No. 299 "On measures to implement the Sendai Framework Programme on Disaster Risk Reduction for 2015-2030 in the Republic of Uzbekistan", April 2019.

IV. RESULTS AND PARTNERSHIPS

Expected Results

The ***project objective*** is to enhance the efficiency and coverage of a multi-hazard early warning system for climate change-induced hazards in Uzbekistan given the projected climate change impacts. This approach combines principles articulated in the Global Framework for Climate Services (GFCS) with a "value chain" approach to target specific weaknesses in the delivery of early warning services, given the specific modes of operation, current infrastructure, technical capacities and institutional arrangements in Uzbekistan. The project will introduce the impact-based MHEWS based on the socio-economic risk modelling and will explore and facilitate elements of forecast-based financing as an innovative paradigm-shifting approach to the use of climate data in decision-making. Consequently, this will lead to the transformation of the current EWS in Uzbekistan from "a reactive" to "a proactive" one based on preventive warnings ahead of events based on the improved efficiency in collecting and generating/forecasting weather and climate information, as well as the development of methods and systems for translation of weather/climate information/forecasts into actionable warnings that are disseminated to users who understand their content and how best to react. This project is designed to enhance the capability of detecting, monitoring, analysis and forecasting avalanches, flooding, droughts, landslides, and mudflows in Uzbekistan, and develop impact-based risk knowledge products to enable warning dissemination and forecast-based actions in targeted areas. Accordingly, the project has identified 15 districts (Qoichirchik, Bostanlik, Sirdarya, Saihunabad, S. Rashidov, Gallaaral, Bulungur, Jambai, Koshrabad, Kitab, Yakkabag, Dehkanabad, Chust, Turakurgan, and Dangarin) located in seven provinces of Uzbekistan as hazard-prone target regions.

Consequently, the project will directly benefit over 11 million people living in high-risk areas of Uzbekistan (34% of the population), whether the project investment in EWS in Uzbekistan will lead to at least a 3% reduction in damages due to the hazard (3% effectiveness). Furthermore, the project investment will lead to avoided damage from mudslide (60% lives saved) and drought (3% loss saved) owing to improved methods and capacities for monitoring, modelling and forecasting climate hazards and risks supported with satellite-based remote sensing. As a result, the project will significantly enhance the quality and timeliness of climate and disaster-related information available to decision-makers and the dissemination of such information to the population of more than 34 million people (approx. 50% increase in the warning lead time and 50% reduction in the warnings delivery time), thus contribute to avoided household income loss (1% avoided damage due to climate information) and increased resilience and enhanced livelihoods of the most vulnerable people, communities in these regions, and to the increased resilience of health and well-being, food and water security in Uzbekistan.

<u>Output 1: Upgraded hydro-meteorological observation network, modelling and forecasting capacities</u>
(GCF grant: USD 4,509,395; Co-financing Uzhydromet: USD 3,985,730)

Under this output, the project will contribute to the establishment of a more efficient monitoring network for weather, climate, hydrology and cryosphere through the upgrading of existing (automatic) and installing new monitoring equipment (AWS, automatic hydrological stations, upper air sounding stations, and strategically placed low-cost radars). This equipment and existing data streams will be integrated into high availability/redundant single databases. Hazard-specific forecasting procedures will be developed and operationalized for climate-induced hazards, followed by training of key staff of Uzhydromet for forecasting, operation and maintenance and data QA/QC/archiving procedures. Activities follow the GFCS and are designed to address observations/monitoring and research, modelling and prediction aspects. Uzhydromet will be the immediate beneficiary under all activities of Output 1, while their end beneficiaries include all the users of the upgraded hydro-meteorological observation network, modelling and forecasting capacities.

Activity 1.1 Upgrading and modernization of the meteorological and hydrological Observation System.
This will include upgrading/automation of 25 meteorological observation stations and equipment (software, workstations etc.), modernization of the ground-based infrastructure (telemetry processing, hydrogen generators etc.) for 2 upper-air stations (Uzhydromet/GoU will support the establishment of 2 more), installing 2 online X-band

Doppler radar systems to cover current gaps in mountainous areas, upgrading and technical equipment of 90 hydrological stations and establishing benchmarks and up to date equipment for instrument calibration (vacuum chambers, mobile laboratory etc.). AWS and hydrological stations will be installed/upgraded at existing facilities and premises of key locations in the mountains above hazardous valleys and in the areas of high precipitation/landslides/mudflow risks, not already covered by investments through the CACILM and CAMP4ASB projects[8]. Uzhydromet is strongly engaged with the WMO and maintains its standards and compatibility with existing systems. In particular, it requires that goods and service comply with WMO 2003 Guidelines on Climate Observation Networks and Systems (TD No. 1185) and WMO Guide to Meteorological Instruments and Methods of Observation (the CIMO Guide No. 8, 2014 edition /2017 update). These requirements will be taken into account during project implementation, and demonstrated compatibility with existing systems is part of any procurement (ITB/RFQ) tender documents under UNDP processes. All equipment will report data to central servers at Uzhydromet and will conform to WMO standards, including reporting to GCOS, GBON and GTS. The project will also assist the government to identify long-term requirements and enabling budgeting and planning for the maintenance of all observing systems. Within this activity, the community consultations will be undertaken to ensure that women are adequately represented in the consultations (at least 50%), including ethnic minorities and other vulnerable groups.

Activity 1.2 Upgrading Uzhydromet capacity to store, process and develop hazard products, as well as to communicate hydrometeorological data to regional divisions.

This is a climate services information system (as described in GFCS) and involves the establishment of an operations centre, ICT servers and networking equipment to integrate data streams (hydrometeorological and satellite-based observations) and automate processes and analyses (including hazard forecasts). Software and processing routines will enable data and maps to be exported in common formats for sharing with partners and importing into the MES risk management system (see Activity 2.1 below). A local cloud-based solution will be implemented to store and manage data that will benefit from offsite backups and easier access for the MES risk management system. Specifically, this activity will:

i) Integrate hydrometeorological data (from both automatic and manually operated stations) into a single database as a basis for developing products based on all available observed data. Automatically transmitted data from different providers/manufacturers will be integrated and undergo quality control/assurance within a single database in real-time and will be available for interrogation via geo-visualization software. This activity will also expand the hydrological drought early warning system for the Amu Darya (developed by the UNDP/AF project) to the Syr Darya and Zeravshan rivers. All historical streamflow and flood data for the two rivers will be collected and forecast models, with data ingestion and data processing routines, will be derived;

ii) Develop automatic procedures for calculating avalanche risk in real-time. Software and code will be developed to automatically update avalanche hazard maps based on snow accumulation from satellites (and AWS) and established procedures for estimating avalanche extent;

iii) Develop code and procedures for automatically calculating mudflow risk maps based on precipitation observations and forecasts for 2-3 days lead time;

iv) Develop a landslide risk model for Eastern Uzbekistan based on geophysical and geotechnical characteristics, including subsurface water and extreme rainfall. The skill of all developed forecast systems will be assessed using retroactive forecasts and used to assess their utility for forecast-based actions in Activity 2.1 and Activity 2.2.

Within the framework of this activity, it shall be ensured that the gender criteria are fully integrated into hazard information products, and various information, education, and communications materials.

Activity 1.3 Re-training and advanced training of Uzhydromet staff on monitoring and forecasting technologies and procedures (training of MES staff is covered in Output 2 below).

International experts will train weather forecasters to work with new products of the KOSMO model (with a resolution of 13 km and 2 km). Refresher courses and advanced training will be provided for new software and equipment, including the introduction of new methods for the analysis and prediction of hydro meteorologically important variables and climate hazards. The project will facilitate the organization of on-the-job training, engagement with universities, courses and seminars with the involvement of foreign specialists. Training of IT

[8] As shown in Figure 46 (page 66) of the Feasibility Study.

specialists of Uzhydromet will be conducted for work with the computer centre and operation of the KOSMO model, the UNIMAS, MITRA information reception and transmission system, workstation software (for weather forecasters, agro meteorologists, GIS-METEO, etc.) and EU Copernicus programme on satellite data, all of which will be used for impact-based forecasting where needed. Training on AWS installation, general user training and technical support will be provided. These increased capacities will also assist Uzhydromet in fulfilling its regional role as a WMO RSMC, following the GFCS capacity development, and help improve its capacity for regional cooperation. A gender-balanced approach shall be used ensuring that 60% of those trained to be women.

Output 2: A functional impact-based Multi-Hazard Early Warning System is established based on innovative impact modelling, risk analyses, effective regional communication and community awareness
(GCF grant: USD 3,098,400; Co-financing MES: USD 21,329,656)

The proposed intervention will integrate and develop ICT systems to use the hydro-meteorological hazards predicted in Output 1, and combine these with vulnerability data to identify risks and provide information for planning and mitigating their impacts. It will improve the efficiency of the current EWS by automating the sharing and production of risk-related data, as well as the communication of warnings. The project will also develop methodologies for and support hazard and risk mapping and risk zoning for key climate-induced hazards (floods, landslides, mudflows, droughts and avalanche). Specifically, it will introduce an advanced, impact-based IMS for combining data on socio-economics (population, livelihoods, and poverty indicators), infrastructure (roads, utilities, buildings, bridges etc.) and the natural environment (land cover, vegetation, soils etc.) to operationally assess the risks associated with each hazard forecast. This information will be transmitted and shared with RCMCs in key hazard-prone districts in Uzbekistan so that regional teams have the most up to date information available for planning their operations. Building on the existing mobile-based public dissemination platforms, the project will develop geographically specific risk-based warnings tailored to the areas affected by each hazard (e.g. mudflows, avalanches, landslides and flooding). Based on the user interaction guideline of GFCS, inputs from consultations with key stakeholders and end-users (activities 3.1 and 3.3) will inform the design and dissemination of warnings and alerts to communities at risk. MES and its RCMCs will be the immediate beneficiaries under all activities of Output 2, while their end beneficiaries include all the users of the Multi-Hazard Early Warning System.

Activity 2.1 Developing and installing a modernised and efficient system for assessing climate risks based on dynamic information on both hazards and vulnerabilities, including socio-economic risk models for decision making and prioritization of resilience-building long-term/future investments.
Impact–based MHEWS will be established where hazard forecasting is linked to the risk and exposure information (socio-economic risk model). This involves installing hardware and software to enable the building of an advanced, impact-based information management system, which will combine data on current vulnerabilities (e.g. indicators of poverty, education, health, housing, gender, etc.), public and private assets (including infrastructure, roads, railways, housing, mines, airports, hospitals, schools etc.), the environment (crops, lakes, rivers, tourism areas etc.) and hazard impacts (input from Output 1) to operationally assess the risks associated with each hazard forecast. Based on evaluated risks and the skill of each impact-based forecast, a set of feasible *ex-ante* actions shall be identified for different lead times. This activity will also develop software and standard operating procedures to automatically ingest hydrological and meteorological observations, weather and seasonal forecasts, and derived drought/avalanche/mudflow/landslide forecasts from Uzhydromet (through Activity 1.2) into the system to be combined with available vulnerability data. Training to MES staff will be delivered on risk assessment, operations and maintenance of the systems. The system will also import long-term climate change scenarios to be used for planning and evaluation of future risks.

Activity 2.2 Developing and introducing technical guidance, institutional and coordination frameworks to increase the efficiency of i) data collection and archiving (activities 1.1 and 1.2); ii) hazard mapping and modelling (Activity 1.2); iii) risk assessment (Activity 2.1); iv) impact-based warning and forecast-based actions (Activity 3.2); and v) dissemination of information to RCMCs (Activity 2.3). These protocols are also required to ensure that new climate information sources (e.g. AWS, AWLS, radar and satellite observations – Activity 1.1) are translated into products that are useful for decision making and investment by MES and Uzhydromet (based on feedback obtained through activities 3.1 and 3.3). Thus, under this activity, the project will explore and facilitate the promotion of forecast-

based financing by developing draft SOPs and prototype FBF protocols/decision-making systems. This activity will include the development of SOPs (both for ingesting and sharing data, as well as for forecast-based actions to be undertaken when specific risk-related triggers/thresholds are reached), a national to regional EWS protocol, and communication protocols to accompany the introduction of the new technologies. Guidance and procedures will be developed to support the application of socio-economic risk models and enhanced risk zoning in development planning and decision-making (Activity 2.1). Corresponding training to MES staff will be delivered. Within the framework of this activity gender-balanced approach shall be achieved by ensuring at least 35% of women in the consultation groups and full integration of gender aspects in the policy documents and the capacity assessments.

Activity 2.3 Designing and implementing a system for information dissemination to RCMCs and area-specific mobile alerts including an information visualization system for RCMCs with software.

This involves setting up information visualisation and analysis systems (video walls, telecommunication systems, servers and ICT storage) at 7 RCMS, to enable them to visualise the maps and impact forecast information provided through the risk analysis and warning system (Activity 2.1) and combine it with local (regionally available) information on current vulnerabilities and field-based information. This will enable them to better target advice and direct regional response teams. This activity will further develop (improving the existing MES dissemination system) area-specific mobile and SMS based warnings for mudflows, avalanches, landslides and flooding. This will reduce the chance of false alarms sent to those not at risk, as well as improve the content based on information from the improved MES risk and impact-based forecast system (Activity 2.1 and Activity 2.2). Inputs from consultations with key stakeholders and end-users (activities 3.1 and 3.3) will be used to design the dissemination system, following the co-design and co-production user interaction guideline of GFCS. Various warnings and multi-hazard risk information shall be tailored to the needs and capabilities of vulnerable groups, targeting women, children, senior citizens, persons with disabilities and ethnic minorities.

<u>Output 3: Strengthened climate services and disaster communication to end-users</u>
(GCF grant: USD 1,915,880; Co-financing MES: USD 3,792,500)

The proposed intervention will strengthen the effectiveness of delivering climate information services and disaster warnings to users in Uzbekistan at two levels. On the overall national level, the project will initiate the establishment of the National Framework of Climate Services as a mechanism to systematically bring together producers and users of hydrometeorological and climate information and to ensure that information and services reach their end recipients both in the various sectors of the government and the society and at the different geographic levels down to local communities. Disaster-related information and services being the specific focus of the project, it will work with the various public and private stakeholders to reorient the existing financial/economic model behind the provision of such services to make it more cost-efficient and sustainable in the long term, i.e. using private investment and partnership opportunities on the domestic and the international markets. Finally, on the warning dissemination and communication aspect, updated communication technologies will be utilised to support real-time risk evaluation by RCMC and first responders and ensure 'last-mile delivery of early warning risk information to the communities at risk and population at large. In collaboration with Red Crescent Society and other community-level NGOs, RCMCs will organize training and annual community forums to help communities at risk better interpret, understand and react to those warnings, as well as facilitate forecast-based actions and responses. Uzhydromet (and, in the long run, other parts of the Government of Uzbekistan, as well as other providers and users of climate services) will be the beneficiaries under Activity 3.1, as the NFCS provides a platform where the various service providers and end-users are engaged in the co-designing, testing and co-production to improve the content and delivery of products and services. Uzhydromet and MES (and GoU in the long run) will be the beneficiaries of Activity 3.2, as the development and promotion of a sustainable business model for disaster-related information and services in Uzbekistan will provide additional operational funding to the two institutions which currently to a large extent rely on government budgets. MES and its RCMCs as well as the communities in the 15 targeted districts as well as Uzbekistan's population at large will be the beneficiaries under Activity 3.3.

Activity 3.1 Establishing National Framework for Climate Services for Uzbekistan.

The GFCS, i.e., endorsed by the GCF Climate Services Strategy, focuses on developing and delivering information services in agriculture and food security, disaster risk reduction, energy, health and water, and organises its work

around observations and monitoring; climate services information systems; research, modelling and prediction; user interface platforms; and capacity development. A strong focus of GFCS is on a multi-stakeholder approach to the definition and the actual delivery of services, thus bringing users and co-producers of climate and hydrometeorological information together and to the centre of the design and production process as opposed to more traditional supply-driven approaches. The establishment of the NFCS would typically involve: i) an assessment of gaps, needs and user perspectives (i.e., through interviews) concerning the current and desirable climate services; ii) based on this assessment, the drafting of NFCS Uzbekistan concept and action plan; iii) extensive consultations regarding the concept with the various sectors, users and co-producers of climate services; and iv) reaching a broad agreement and Governmental endorsement for NFCS implementation. Following an accepted WMO blueprint for the conceptualising and establishment of an NFCS, the project will undertake a baseline assessment of climate services in Uzbekistan, followed by multi-stakeholder consultations and the participatory development of the country's NFCS concept and Action Plan to be endorsed both by stakeholders and at the high executive level, ready for implementation once supplementary NFCS-earmarked funds become available as a follow-up to the project. As part of this activity, a platform will be set up to engage end-users in the design and testing of new disaster-related climate information services and products. Similarly, a National Climate Outlook Forum will be established and supported as one mechanism to help shape and deliver climate services with a longer time horizon, i.e. with a particular focus on disasters such as hydrological droughts. A connection will then be established between the Forum and WMO's NEACOF and FOCRAII. Both the NFCS user dialogue platform and the National Climate Outlook Forum will (as well as the NFCS process at large) will be managed by Uzhydromet. Considering the gender aspects of the intervention, gender mainstreaming training shall be performed for the decision-makers and practitioners, women shall be adequately represented in the consultation process (at least 30%) and gender shall be mainstreamed in the planning process.

Activity 3.2 Designing a sustainable business model for disaster-related information and services.
While it may not be realistic to expect any significant level of private financing during project implementation given the existing public service management model and the time required for transition, there is long-term potential for private sector investment in climate information services and expanded service provision to private sector based on enhanced hydrometeorological and climate information in Uzbekistan, including those related to natural disasters and early warning. Linked to the NFCS process above, the project will conduct a comprehensive analysis and discussion of long-term sustainable financing options for disaster-related services in Uzbekistan beyond the current state-funding model, in particular drawing on blended finance through dedicated national funds and public-private partnership opportunities. This will include seeking financing, from both public and private sources, for forecast based (ex-ante) actions identified in activities 2.1 and 2.2. Based on the analysis and consultations, a sustainable value chain-based business model for disaster-related information will be developed and agreed upon with the key stakeholders, and the necessary legal and organizational changes will be outlined and planned on the national (adjustment of legislation) and the inter-institutional levels (Uzhydromet, MES, users of the services, private investors). During these consultations, at least 35% of representatives of planning teams and consultation groups shall be women.

Activity 3.3 Strengthening disaster warning dissemination and communication with end-users.
The project will significantly strengthen interaction with the end-users (with consideration of gender, age and vulnerability factors) to communicate and facilitate proactive responses to disaster information and warnings in Uzbekistan. Within the 15 RCMCs, outdoor communication boards[9] will be set up in identified communities at the highest risk to alert and inform the population in real-time about threats or emergencies, following which, through cooperation between MES RCMCs and the Red Crescent Society, communities will be trained to interpret and use the information on climate hazards and early warnings. Printed visual information (leaflets) will be provided to RCMCs and Uzbekistan's communities on climate hazards and associated early warnings. With the expected increase

[9] These are physical boards used to relay warnings and messages, to be installed/set up by MES in targeted districts (including in hazard-prone areas with limited mobile receptions or not immediately reachable by a Regional Crisis Management Center). Boards will be installed in popular public places used by communities or on regular commuter transport routes.

of user interaction level, regional staff of MES RCMCs will be further trained in the effective use of this information to support community interactions (crowdsourcing and survey data) and formulate forecast-based actions following the guidelines developed in Activity 2.2. Similarly, easy-to-understand and visual information will be channelled to mass media through existing agreements between them and MES/Uzhydromet, as well as to national NGOs. Finally, this activity will also complement the prior Activity 2.3 in the development of region-specific (as opposed to the currently used national-wide) broadcasting of early warnings, with the use of other modern communication channels such as social media and electronic messenger subscription groups. Besides, the project will establish a platform for organizing annual community forums on community-based EWS engaging target communities and representatives of vulnerable groups to exchange information, lessons learned, successes and opportunities. Through such platforms, regular competitions will be organized engaging both youth and the most active community representative to advocate for structural and non-structure measures and ensure their inclusiveness.

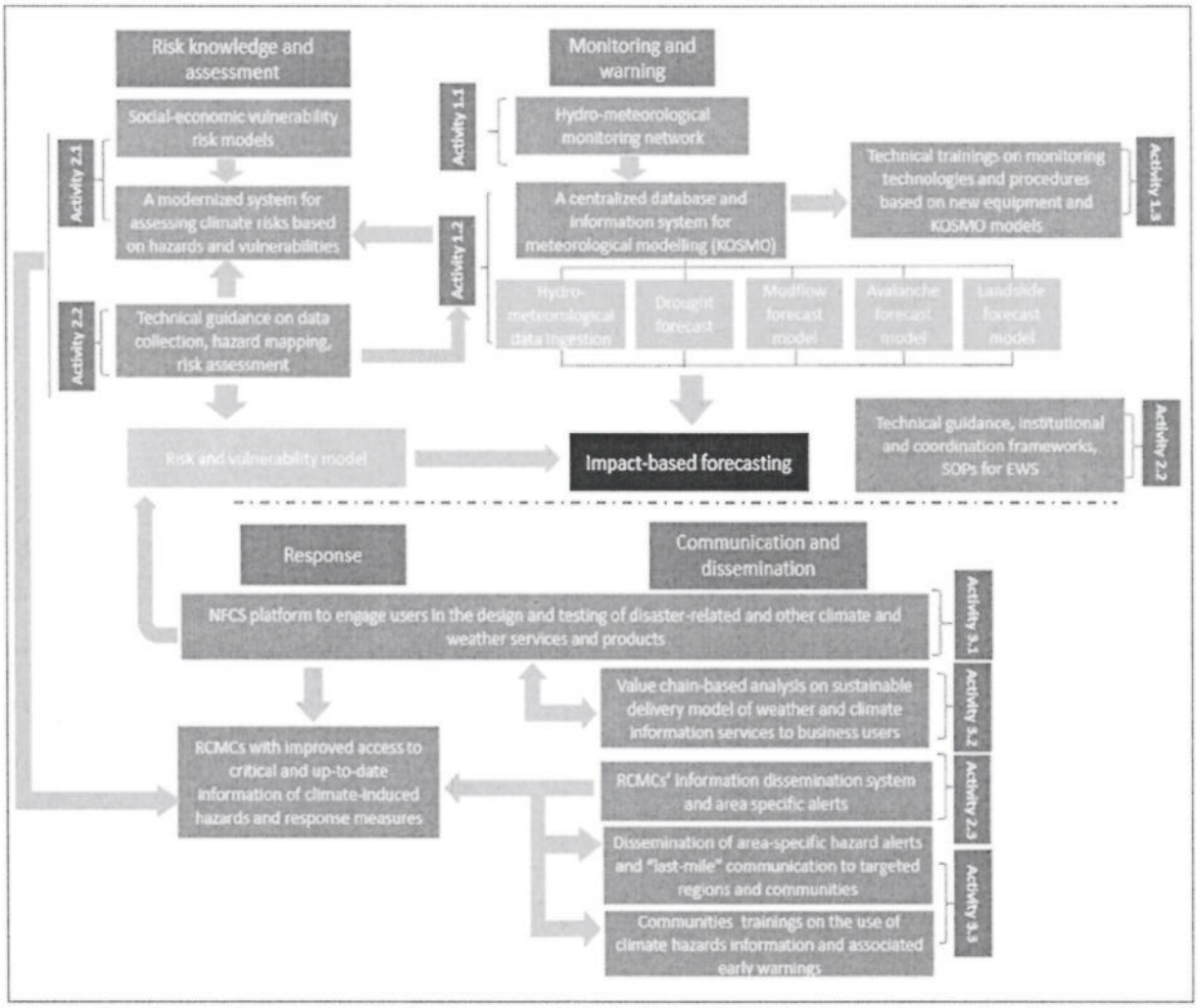


Figure - Conceptual Diagram of the Impact-Based MHEWs

Partnerships

The Implementing Partner for this project is the Ministry of Emergency Situations of the Republic of Uzbekistan, where the Centre for Hydrometeorological Services of Uzbekistan (Uzhydromet) is the Responsible Party. The project will be implemented in cooperation with the following ministries: Ministry of Higher and Secondary Special

Education of the Republic of Uzbekistan, Ministry of Public Education of the Republic of Uzbekistan, Ministry of Economic Development and Poverty Reduction of the Republic of Uzbekistan, regional governments – Khokimiyats, local governments, Makhala committees, national NGOs, educational and academic institutions, women and youth associations based on their relevance and competitive advantage. Furthermore, the project will collaborate with other development partners to avoid any duplication of actions and ensuring synergies for long term impacts, sustainability and resilience of the society and the communities. There are many international development organizations and IFIs that promote climate, smart agriculture and disaster risk reduction initiatives. They include the Red Crescent Society, FAO, UNICEF, GIZ, Agence Francaise de Developpement, EU delegation, Embassy of Japan, JICA, KOICA. WHO, Swiss Development Cooperation, Central Asia Regional Economic Cooperation, World Bank and UNESCO. Therefore, the project will establish a cooperation platform with them depending on the priorities and mandates. The project will also cooperate with WMO to ensure alignment with reporting to the Global Climate Observing System (GCOS), Global Basic Observing Network (GBON) and Global Telecommunication System (GTS) and a connection will be established between the Forum and WMO's Regional Climate Fora operating in Europe (NEACOF) and Asia (FOCRAII).

This project will serve as a practical response to the recently launched Global Alliance for Hydromet Development at the COP 25 of UNFCCC in Madrid, where twelve international organizations including GEF, GCF, AF, ADB, EBRD, UNDP, UNEP collectively committed to scaling up action that strengthens the capacity of developing countries to deliver high-quality weather forecast, early warning systems, water, hydrological and climate services and support the most vulnerable communities.

In addition, there are several projects directly relevant to this GCF funded intervention, including:

- *GCF project "Climate Adaptation and Mitigation Program for the Aral Sea Basin (CAMP4ASB)"* managed by the World Bank and synergies will be made in the area of hydrometeorological observation infrastructure with scaling potential for utilizing risk knowledge and information developed through this project.
- *UNDP/Adaptation Fund (AF) project "Developing climate resilience of farming communities in the drought-prone parts of Uzbekistan"* and the project build on its experiences to continue installing/upgrading 25 automatic meteorological stations, as well as to expand the coverage of DEWS to two additional river systems in Uzbekistan.
- The second phase of the *regional CAHM project "Upgrading of Hydrometeorological Services of Central Asian countries (Uzbekistan, Kyrgyzstan and Tajikistan)"* implemented by WMO and WB and synergies will be made considering the regional climate services, weather forecasting and conduct of regional training and use of the experience and lessons learned on the improvement of monitoring network and capacity building of Uzhydromet staff.
- *"Integrated natural resources management in drought-prone and salt-affected agricultural production landscapes in Central Asia and Turkey (CACILM2)" project managed by FAO* and synergies can be made considering the hydrometeorological observing infrastructure, application of satellite/earth remote sensing technologies and drought/crop forecasting. Key stakeholders and end-users will be engaged to share project experience on drought forecasting and early warning through engagement channels created by NFCS and Climate Outlook Forum
- *National Adaptation Planning project under GCF Readiness Programme* implemented by UNDP with Uzhydromet (2020-2022) will advance medium- and long-term adaptation planning and will contribute to enhanced coordination mechanism for multi-sectoral adaptation planning and implementation at different levels.
- *UNDP/CCI joint project "Enhancing the adaptation and strengthening the resilience of farming to Climate Change Risks in Fergana Valley"* with the funding support of Russia-UNDP Trust Fund for Development (2019-2021) - The approach to establishing the automated system and working with small farmers and households will be studied and lessons learned for integration of best practices to the proposed GCF investment.

The project also builds upon the regional project *"Strengthening Early Warning of Mountain Hazards in Central Asia"* and the recommendations of the Second Development Partners Conference on Strengthening and Sustaining National Meteorological and Hydrological Services.

The private sectors would be engaged during the project implementation to provide goods and services, whether the satellite and mobile companies will be included in the consultation aspects e.g. members of the working group,

and other private sector entities will participate in the consultation processes and the workshops. Furthermore, Uzbekistan's market for climate information services is still not well-developed and thus needs for private market involvement will be created. The Project will set up a platform to engage climate information providers and private sector and community beneficiaries to ensure both the relevance of products and explore market creation in the longer term. Also, it will seek to develop a sustainable business model to explore ways, including through Public-Private Partnerships (PPP) to attract private sector engagement in the delivery and use of climate and disaster-related information products and services. Notably, several public institutions including Uzbekistan Railway have expressed interest in the climate hazard warnings and advisories

Risks

This GCF funded project intervention builds upon the success of the previous and ongoing programmes and benefits from the related best practices and codified lessons learned. Accordingly, its design reduces potential exposure to design and implementation risks. UNDP's relationship with government partner agencies is well established, with financial and programme monitoring systems in place to provide ongoing technical and other oversight. As such, risks for the project are considered mainly low or medium. Besides, the proposed project has been formulated based on consultations at the national and local level, and the project design has been reviewed by stakeholders at all levels, including a sample of community representatives. The project management model will be adaptive so that risks will be annually revised as risks management strategy will be refined to addresses evolving circumstances. The decisions of the Project Board will be informed by the evidence collected by the project. Nevertheless, several potential risks have been identified and have been detailed along with mitigation measures as presented in the table below and are part of the ***Annex J - Risk Log***. The environmental and social safeguard risks are minor and will be comprehensively addressed by the standard UNDP social and environmental screening procedure. See ***Annex G* for *social and environmental risks.***

Description of risks and negative externalities	Impact	Probability	Proposed mitigation measures	Responsible organization(s)
Cost of operation and maintenance (O&M) cannot be sustained by the Government of Uzbekistan	Medium	Low	• The commitment of the GoU to ensure the adequate operation and maintenance of the new observation and data processing equipment after the conclusion of the project, as provided in official decrees made by GoU, and through the pledge of co-financing for this purpose. • Development of a value-chain based business model to identify sustainable delivery options for disaster-related services, to increase revenue generation capacity for Uzhydromet and MES in the long run. • The project investment will favor innovative systems with reduced operation and maintenance costs, as well as ensuring fitness for purpose and cost-effectiveness.	UNDP, MES, Uzhydromet
Poor adoption and use of MHEWS	**Medium**	**Low**	• Through the creation of an improved delivery system for MHEWS and targeting the identified user needs, the MHEWS are made more relevant to the users and stimulate needs for more relevant, accurate and timely services. This is achieved by improved local access through RCMCs and greater involvement of relevant organizations (sector organizations, civil society, sector organizations, user groups). • Modern observation equipment will provide users with high quality, real-time data with greater efficiency of information generation, and enable a paradigm shift from disaster response to prevention.	UNDP, MES, Uzhydromet

Limited institutional cooperation hampers effective MHEWS development	Medium	Medium	• Improved data and information sharing will be facilitated through the development of multiple hazard forecasts and the creation of a central data and risk analysis platform, enabling the production of high-quality information and creating greater opportunities for synergies between actors in the MHEWS chain. • Creation of protocols and technical guidance to ensure that institutions share required data. An open data policy for public good MHEWS (WMO resolution 4055), will be pursued to ensure data is accessible to the public.	UNDP, MES, Uzhydromet
Damage to observation equipment due to extreme weather events and hazards.	Medium	Medium	• Use of robust observation systems that make optimal use of remote sensing techniques where possible, and the use of real-time data transmission to prevent loss of data in case of equipment failure and to continuously monitor the status of the equipment.	UNDP, Uzhydromet
Anti-Money Laundering/Countering the Financing of Terrorism Practices	Low	Low	• Adequate anti-money- laundering and countering the financing of terrorism systems and controls to address related issues as they occur in line with its policies and procedures. • Provision of the procurement support to the EE, guided by the UNDP policies and procedures (POPP) and fiduciary standards. • A two-tier Grievance Redress Mechanism will be established guided by the UNDP SESP to address potential reputational risks and complaints.	UNDP

Stakeholder engagement plan

Proposed implementation arrangements have been made in view and taking into account the MHEWS, climate resilience and disaster risk management contexts in Uzbekistan, as well as a result of extensive stakeholders' consultations held during the project development stage. MES as the Implementing partner and Uzhydromet as the Responsible Party have been fully engaged in the development of this proposal, alongside stakeholder's consultation with representatives of other key stakeholders on the national and local level, international organizations, local communities, etc. The stakeholder consultation process during the project formulation helped to identify the key stakeholders and following a series of consultations and inputs received, project outputs have been formulated and refined.

MES will be responsible for establishing a functional Multi-Hazard Early Warning System based on innovative impact modelling, risk analyses, effective regional communication and community awareness, whether Uzhydromet will be responsible for the work related to upgrading and modernization of the meteorological and hydrological Observation System, leading to strengthened climate services and disaster communication to end-users. Other agencies and ministries stated above will be important stakeholders depending on their mandates. The MoH will be involved in building the capacity of the population on preventive measures in situations related to natural disasters, safety and risks to health. MAWR will be involved in activities related to water management and associated risks in the target areas, while MoA will be engaged on the issues related to potential threats from climate-related hazards to agriculture and local farmers. MPE and MHSSE will be involved in the development of education materials and capacity building of the population with a special focus on youth. For awareness-raising among the population, local communities the project will involve national TV and information agencies to ensure that targeted information reaches its audience. On grass root and community levels, mahalla level UNDP will be working with community initiative groups and Makhala leaders ensuring that the local population is fully engaged in the implementation of the project and understanding its importance. This engagement and interest and contribution through national practices of "Hashar" engagement and contribution of people to the process, will ensure the ownership and sustainability of the project results. Local NGOs and women's association having experience at grass root levels will be engaged in community-level participatory risk planning and management. The Project will support also the

establishment of Community Forums engaging target communities and representatives of vulnerable groups to support awareness-raising on DRR and EWSs issues and ensure the involvement of local communities in planning risk reduction measures at the earliest stage and increase their ownership of the process. Multi-stakeholder Technical Advisory Working Groups (TAWG) will also be established to provide inputs to and endorsement of the design and quality of the project outputs. The TAWG members will represent the government, private sector, academia and civil society to provide guidance and technical advice on the project.

For further details refer to ***Annex H – Stakeholders Consultations and Engagement Plan***. During the implementation phases of the project, if any person or group of people are identified as being adversely affected, directly or indirectly due to the project activities, the project will comply with the ***UNDP Social and Environment Standard***, which will include a ***grievance mechanism*** to address any potential environmental or social issues (see ***Annex G - Social and Environmental Screening Procedure***).

Gender Equality and Women's Empowerment

The project follows a gender-responsive approach that will ensure the particular priorities, needs, barriers, status and roles of men and women are recognized and addressed. There will be a particular focus on the inclusion and empowerment of women as a critical element of sustainable development in the context of DRR and climate change. A gender analysis undertaken at the onset and during the design phase of this project acts as an entry point for gender mainstreaming throughout implementation. The stakeholder consultation process involved holding seminars with representatives of various Ministries (MES, Uzhydromet, Ministry of Health, State Committee for Ecology and Ecology, etc.) and representatives of Parliament, Civil Communities and Women's Committee.

As a result, the gender analysis enabled multi-stakeholder engagement and incorporated the gender-sensitive approach into the project design moving forward. For instance, gender aspects and specific needs will be integrated during the development of the multi-hazard early warning regulations, mechanisms and protocols (Output 2). A ***Gender Analysis and Action Plan*** (***Annex I)*** has been developed in this process, which sets out gender-disaggregated target data and indicators to establish a baseline in which to measure improvements and identify areas of focus, as well as with specific recommendations that are expected to reduce household vulnerability to climate change while ensuring a key role for women in the implementation process. The project will present many opportunities to promote gender equality in Uzbekistan. Specifically, gender-sensitive socio-economic vulnerability assessments and development of socio-economic risk models for decision making and prioritization of resilience-building investments will bring transformative impact by providing evidence-based information on gender situation that further be considered at the level of project implementation ensuring targeted support and access to the risk-informed solutions. Also, within Output 3 two training for relevant agencies on gender-sensitive socio-economic vulnerability analysis, with one or two sessions fully dedicated to gender aspects of the analysis will be held, whether the International Consultant shall conduct training of key decision-makers on MHEWS and CRM, with special sessions to be dedicated to gender mainstreaming in climate and disaster risk management and EWS and will assist to develop and implement gender-sensitive awareness programme, guidance documents and education programs as well as training modules on gender-sensitive CRM/DRR, MHEWS, CBMHRM, etc.

Concerning the gender-responsive technical design of the MHEWS, the project will ensure that warnings are tailored to the gender-differentiated needs and capabilities of specific population groups, such as children, senior citizens, and persons with disabilities. Multiple methods for targeting messages will be used for reaching the broadest group of people, including TV, radio, Internet, sirens, flashing lights, registration-based alert systems sending messages to cell phones with information clearly stated orally and graphically. Pregnant women and the elderly and disabled will be included in emergency planning. The important element in mainstreaming gender is community awareness and capacity, and understanding of impacts of disasters on community resilience when the project builds the capacity of communities and demonstrate the impact of hazards to various groups of people. Inclusiveness and consideration of the needs of all groups including those are with special needs also make the project actions transformative. As a result, the project will ensure at least 30 per cent representation of women and their active participation in project stakeholder consultations, capacity building and training, local and national decision-making bodies set up and/or facilitated by the project. This 30% target is based on the lessons from and experience of the earlier UNDP

community-based projects in the country, community consultations and DRR stakeholder consultations. The gender-related targets proposed in the project are both ambitious and achievable, and will positively promote gender equality in Uzbekistan. Furthermore, the total number of direct beneficiaries of the project is 11,296,000 people (or 34% of the total population of the country) who are at risk of climate-induced hazards, out of which 50,16% or 5,666,074 are women.

South-South and Triangular Cooperation (SSTrC)

Aiming to bring the voice of Uzbekistan to global and regional fora, the project will explore opportunities for meaningful participation in specific events where UNDP could support engagement with the global development discourse on MHEWS, climate resilience and disaster risk reduction matters. The project will furthermore provide opportunities for regional and global cooperation with countries that are implementing similar initiatives. There are many regional initiatives in Central Asia which envisage regional cooperation and other developing countries in the areas of hydrometeorology, agrometeorology, EWS, hazard mapping, disaster risk reduction, development of spatial data infrastructure based on EU standards, etc. These initiatives also include cooperation with various international organizations and development agencies in terms of knowledge sharing and application of their methodologies and standards. In particular, the project will further facilitate such knowledge transfer across Central Asia by allowing sub-regional stakeholders to attend the National and Regional Climate Outlook Fora, as well as observing and sharing collected data according to international standards and guidance (e.g. GCOS and GBON) and through standardized mechanisms (e.g. through the GTS). Also, the project will utilize the potential synergy with the regional projects where Uzbekistan is the implementing party e.g. GCF project "Climate Adaptation and Mitigation Program for the Aral Sea Basin (CAMP4ASB)" managed by the World Bank, the second phase of the regional CAHM project "Upgrading of Hydrometeorological Services of Central Asian countries (Uzbekistan, Kyrgyzstan and Tajikistan)" implemented by WMO and WB, "Integrated natural resources management in drought-prone and salt-affected agricultural production landscapes in Central Asia and Turkey (CACILM2)" project managed by FAO, etc.

Innovativeness, Sustainability and Potential for Scaling Up

This GCF project will provide the critical technical and financial resources, access to innovative technologies and expertise for the implementation and scale-up of this national initiative. It will promote the transformation of climate hazard forecasting and warning from a reactive (ex-post) hazard-based system to one that is proactive (*ex-ante*), user-oriented and impact-based. So, the project will introduce the impact-based MHEWS based on the socio-economic risk modelling and will explore and facilitate elements of forecast-based financing as an innovative paradigm-shifting approach to the use of climate data in decision-making. The proposed GCF investment will transform the current risk management and EWS in Uzbekistan by introducing new innovative technologies, increasing the efficiency and cost-effectiveness of the EWS, as well as reducing the operation and maintenance costs. In particular, innovativeness can be identified in certain aspects of the intervention i.e. innovative impact modelling as one of the pillars of the MHEWS, increased use of satellite imagery and remote sensing solutions, as well as mainstreaming of the forecast-based financing as one of the anticipating mechanisms for risk financing.

Sustainability and scaling-up principles are embedded in the project design during the whole process of close consultation with and involvement of relevant key government agencies, technical line departments, regional and local governments and communities, international development partners, NGOs, private sector entities and other stakeholders. These consultations and discussions, combined with models and approaches for MHEWS provide the project with a sound approach and suite of interventions that are implemented with strong community and beneficiaries participation and engagement of key institutions. Building on this foundation, the project ensures that the investments, as well as the results of the interventions, are sustained beyond the project period and in the longer term through the elements of project design and implementation.

By end of the GCF project, Uzhydromet and MES, will be technically, and technologically equipped and trained to maintain the modelling, forecasting and effective dissemination of impact-based climate-induced hazards and early warning services countrywide. Also, the improved capacity of RCMCs and local communities to use and integrate climate risk information into practical early responses will enhance the community resilience as a whole with

sustained impacts. The project puts a strong focus on community engagement, training and "last-mile" communication solutions, which will contribute to improved user interaction and ownership by local communities and key stakeholders and further promote the sustainability of this project in the long term.

Operational wise, the establishment of a series of guidance and protocols - including a national to regional EWS protocol, and communication protocols will increase the institutional coordination capability among MES, Uzhydromet and other relevant government agencies, and support an integrated approach to long-term climate, socio-economic risk planning and decision-making. The financial sustainability of this project is supported by the strong commitment of the Government of Uzbekistan. Since 2011, multiple cabinet resolutions and decrees have been issued to support the modernization of a more efficient and wide-ranging multi-hazard EWS. In particular, decree No. 601 by the Cabinet of Ministers of Uzbekistan on Aug 8, 2017, states the responsibilities of MES to operate and maintain IT equipment and communications and set out how funds/revenue should be dedicated to undertaking this responsibility. As noted, co-financing to this project will be provided by MES and Uzhydromet as part of the budgetary allocations, specifically to finance the Operation and Maintenance (O&M) and personnel costs for the new equipment and software over 20 years. The additional O&M and personnel cost for year 7-20 is estimated by Uzhydromet to be USD 7,408,184 and USD 5,981,500 from MES. Accordingly, the total public co-financing by GoU (including 20-year O&M, personnel cost, infrastructure and capital investment) leveraged by this project is estimated to be USD 44,029,564.

This project addresses one of the main objectives of SAP projects, which is to create an enabling environment for future scaled-up investment. By demonstrating the benefits of improved warnings and communications with regional centres and communities, it will provide the evidence and impetus for further funding to expand to the whole of Uzbekistan. Furthermore, by directly linking hydrometeorological data with hazard warnings, the utility of different data sources can be evaluated for better directing future investments. The impact, scalability and paradigm shift potential of this GCF investment will be further elevated due to Uzhydromet's role as the Regional Specialized Meteorological Centre (RSMC) for Central Asia. As the project will improve the technological and institutional capacities of Uzhydromet, this will allow them to further improve on service/information delivery to other Central Asian countries, as well as any training, technology and knowledge transfer activities they undertake as an RSMC. The project will further facilitate such knowledge transfer across Central Asia by allowing sub-regional stakeholders to attend the National and Regional Climate Outlook Fora, as well as observing and sharing collected data according to international standards and guidance (e.g. GCOS and GBON) and through standardized mechanisms (e.g. through the GTS).

V. PROJECT RESULTS FRAMEWORK

This project will contribute to the following Sustainable Development Goal (s): *SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable and SDG 13: Take urgent action to combat climate change and its impacts as well as to the achievement*					
UNDSDCF Outcome 5. By 2025, most at-risk regions, and communities of Uzbekistan, especially the most vulnerable people, are more resilient to climate change and disasters and benefit from increasingly sustainable and gender-sensitive efficient management of natural resources and infrastructure, enhanced climate action, inclusive environmental governance and protection. *CPD: Output 4.3. Integrated gender-responsive climate and disaster risk governance systems strengthened through enhanced multi-hazard early warning (MHEWS) and rapid recovery.* *UNDP SP: Output 3.3.1. Evidence-based assessment and planning tools and mechanisms applied to enable the implementation of gender-sensitive and risk-informed prevention and preparedness to limit the impact of natural hazards and pandemics and promote peaceful, just and inclusive societies.*					
GCF Paradigm shifts objectives: The project will facilitate a significant shift in the provision of climate and disaster information and forecasting services through an enhanced multi-hazard early warning system in Uzbekistan. The GCF project will promote the transformation of climate hazard forecasting and warning from a reactive (ex-post) hazard-based system to one that is proactive (ex-ante), user-oriented and impact-based. Moreover, this project will be the driver of significant institutional change within Uzbekistan's hydrometeorology and disaster response services, as well as a potential catalyst for increased investment in the sector. Uzhydromet currently serves as a Regional Specialized Meteorological Centre (RSMC) within the WMO Network for the Central Asian region. This project will strengthen Uzhydromet capacity to potentially scale up the enhanced climate information management system to other Central Asian countries through experience sharing and peer learning. By the end of the project, the number of its direct beneficiaries will come to 11.296 million people (34.9% of the total population), including 5.63 million men and 5.666 million women. The direct beneficiary of this project is the population currently living in high-risk areas of Uzbekistan (people exposed to one or more climate hazards), estimated to be 34.9% of the population.					
	Objective and Outcome Indicators	**Baseline**	**Mid-term Target**	**End of Project Target**	**Assumptions**
SDG indicators	*11.5.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population* *11.5.2 Direct economic loss concerning global GDP, damage to critical infrastructure and number of disruptions to basic services, attributed to disasters* *13.1.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population* *13.2.1 Number of countries with nationally determined contributions, long-term strategies, national adaptation plans and adaptation communications, as reported to the secretariat of the United Nations Framework Convention on Climate Change* *13.2.2 Total greenhouse gas emissions per year* *13.3.1 Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education, and (d) student assessment*	*See http://unstats.un.org/sdgs/indicators/database/*	*Expected status a mid-point of project implementation*	*Expected status a project closure*	*Note how project data will link with national statistics offices or other bodies monitoring SDG indicators*
FUND LEVEL IMPACT:					

Fund level Impact: ***A1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions***	*1.1 Change in expected losses of lives and economic assets (US$) due to the impact of extreme climate-related disasters in the geographic area of the GCF intervention*	Loss of life: Average of 8 lives lost annually (1996-2016) for the entire country Economic losses for the entire country: US$ 312.3 million average annual loss due to various hazards (floods, droughts and mudslides)[10].	*0/No change* *(the new system will not be fully operational at scale by mid-term)*	50% lives (average of 4) saved from climate-induced hazards per annum 3% or 9.37 million USD expected reduction in economic damages from various hazards[11]	*The occurrence of major extreme events (e.g., seismic) does not deviate historic trajectory.*
PROJECT OUTCOMES:					
Project Outcomes	Number of technologies and innovative solutions transferred or licensed to promote climate resilience as a result of Fund support	The majority of meteorological observation stations (75 out of 85) operate in manual mode, with limited use of remote-sensing and satellite data. The existing multi-hazard EWS system lacks vulnerability data of population and infrastructure, as well as systematic risk assessment and hazard mapping tools. Baseline: 0 technologies/ solutions; Status: initiated/installed	9 technologies/ solutions; status: initiated/installed Including: 4 Hydrometeorological observation technologies upgraded and installed: AWS; automatic streamflow measurements; upper-air stations; radar 4 technologies for multi-hazard risk analysis, forecasting and impact-based MHEWS: socio-economic risk and vulnerability model; mudflow modelling; landslide risk modelling; Drought EWS for the Syr Darya and Zeravshan rivers 1 communication technology:	11 technologies/ solutions; status: introduced/in use Including: 5 Hydrometeorological observation technologies upgraded and operational: AWS; automatic streamflow measurements; upper-air stations; radars; centralised database for meteorological measurements 4 technologies for multi-hazard risk analysis, forecasting and impact-based MHEWS: socio-economic risk and	Relevant government agencies cooperate on the implementation of the MHEWS and data management Inter-agency data available and accessible as inputs to the knowledge management platform Continued government support and commitments to secure adequate O/M of monitoring equipment, relevant software and databases during the project implementation and afterwards

[10] FS section 5.2 provides the national estimate of direct economic cost of disasters that is used to calculate baseline: annual economic impact is estimated to be US$ 236 million for floods, US$ 67.2 million for droughts, US$ 9.1 million for mudslides (including the valuation of loss of life: 8 people with a VSL of US$ 871,798).

[11] According to the Economic Analysis, the US$ 9.37 mln estimated reduction in economic damages, equal to 3% of US$ 312.3 mln baseline cost of climate-related disasters, is based on the assumed economic impact from increased lead time of planning for hazards and on the avoidance of loss of lives due to the them

			visualization systems at 3 RCMCs	vulnerability model; operational mudflow modelling; operational landslide risk modelling; Drought EWS for the Syr Darya and Zeravshan rivers 2 communication technologies: visualization systems at 7 RCMCs, public notice boards in 20 communities	
A5.0 Strengthened institutional and regulatory systems for climate-responsive planning and development	5.2 Number and level of effective coordination mechanisms	Uzbekistan has not yet established a National Framework of Climate Services (NFCS), a framework that can promote more efficient adaptation to climate variability through continuous improvement in the quality, delivery and use of climate-related information in planning, policy and practice. Currently, MES under the State Emergency Prevention and Response System (SEPRS) has limited capacity to coordinate the dissemination and inter-agency responses of multi-hazard forecasting and	A national to regional EWS protocol: Level 2 A National Framework for Climate Services (NFCS): Level 2 (baseline assessment conducted and Action plan endorsed by stakeholders) Number of institutional and coordination frameworks and technical guidance in use by Uzhydromet and MES on i) data collection and archiving; ii) hazard mapping; iii) risk assessment; and iv) dissemination of information to RCMCs: 2 coordination protocols in place	A national to regional EWS protocol: Level 4 A National Framework for Climate Services (NFCS): Level 4, includes the operationalization of a national climate outlook forum that brings end-users and co-producers of climate and hydrometeorological information in the design and production processes. Number of institutional and coordination frameworks and technical guidance in use by Uzhydromet and MES on i) data collection and archiving; ii) hazard mapping; iii) risk assessment; and iv) dissemination of information to RCMCs: 4 coordination protocols in place	Continued and government support and cross-agency commitment to the project

		early warning, using various communication channels at national and regional levels. Specifically, the national baseline on the level of effective coordination mechanisms are defined by a metric of Level 1-4:12 A national to regional EWS protocol: Level 1 A National Framework for Climate Services (NFCS): None (Level 1) Number of institutional and coordination framework and technical guidance in use by Uzhydromet and MES: 0			
A6.0 Increased generation and use of climate information in decision-making	*6.2 Use of climate information products/services in decision-making in climate-sensitive sectors*	Weather and climate-related information are not generally used for preparedness and risk management purposes among government institutions in Uzbekistan, with a few exceptions of:	At least 2 government agency members under SEPRS use the forecasts and risk assessment for climate hazards in decision-making and prioritization; 30% of surveyed government beneficiaries (agencies) report improved	At least 4 government agency members under SEPRS use the forecasts and risk assessment for climate hazards in decision-making and prioritization Inter-agency data-sharing agreement between agencies	Uzhydromet and MES have continued national and local political support for the development of a state emergency prevention and response system (SEPRS).

[12] Level 1 = no coordination mechanism; Level 2= coordination mechanism in place; Level 3 = coordination mechanism in place, meeting regularly with appropriate representation (gender and decision-making authorities); Level 4 = coordination mechanism in place, meeting regularly, with appropriate representation, with appropriate information flows and monitoring of action items/issues raised.

		· Hydrological drought forecasting for the Amu Darya · Identification of avalanche GLOF risks through monitoring of snowpack and lake levels at key sites and remote sensing; · General monitoring of high-intensity rainfall in known areas of potential landslide and mudflow formation.	emergency response due to improved disaster warning	institutionalized and data-sharing protocols established 50% of surveyed government beneficiaries (agencies) report improved emergency response due to improved disaster warning	
A7.0 Strengthened adaptive capacity and reduced exposure to climate risks	7.2 Number of males and females reached by (or total geographic coverage of) climate-related early warning systems and other risk reduction measures established/strengthened [13]	Integrated climate-resilient MHEWS doesn't exist 0 males and 0 females in the project implementation regions have access to up-to-date and area-specific climate hazards and early warning information.	At least 1,133,215 females, 1,125,985 males have access to climate hazards and early warning information.	All population (5,666,075 females, 5,629,925 males) in the project implementation region have access to climate hazards and early warning information.	Continued commitment and uptake of the information by targeted communities in the project Target communities understand shorter- to longer-term benefits of MHEWSs and risk reduction interventions Government has a political will, institutional capacity and necessary resources to support the proper O/M of MHEWS. No staff and budget cuts occur at MES and Uzhydromet
A8.0 Strengthened awareness of climate threats and risk-reduction processes	8.1: Number of males and females made aware of climate threats and related appropriate responses	0 males and 0 females in the project implementation regions have a strong awareness of climate threats and risk reduction processes, and	40% out of 500 surveyed EWS beneficiaries (100 males and 100 females) report enhanced risk awareness 30% out of 500 surveyed beneficiaries (100 males and 100	80% out of 500 surveyed EWS beneficiaries (200 males and 200 females) report enhanced risk awareness	Continued commitment and uptake of the information by targeted communities in the project Target communities understand shorter- to longer-term benefits of MHEWSs and risk reduction interventions

[13] Number of males and females reached by the early warning system will be estimated based on the coverage data of mobile network (and other communication channels, e.g TV, radio broadcast).

		capacities to use such climate information for disaster preparedness	females) report that the warnings are clear and being used by their households for enhanced disaster preparedness	70% out of 500 surveyed beneficiaries (175 males and 175 females) report that the warnings are clear and being used by their households for enhanced disaster preparedness	Government has a political will, institutional capacity and necessary resources to support the proper O/M of MHEWS. No staff and budget cuts occur at MES and Uzhydromet * The methodology to measure the change in awareness and the survey sample size will be established through activity 3.3 during the implementation phase (Year 1) as part of the survey design, tentatively it will include at least 500 project beneficiaries from 10 different communities.
PROJECT RESULTS:					
Output 1: Upgraded hydro-meteorological observation network, modelling and forecasting capacities	1.1 Number of new hydro-meteorological monitoring equipment purchased, installed and operational	Level = 0	13 automatic weather stations (AWS) partially installed, calibrated and operational; 2 upper-air stations partially modernized; 1 online radar system partially established	25 automatic weather stations (AWS) installed, calibrated and operational; 4 upper-air stations modernized; 2 online radar system established	- Government commitments to secure adequate O/M of monitoring equipment, relevant software and databases are fulfilled continuously both during the project implementation and afterwards - Capacities built across relevant agencies through the project are maintained and periodically updated - Land for installation is available and accessible
	1.2 Number of districts for which hazard and risk maps (covering landslides, mudflows, avalanches and hydrological droughts) are available	0	2	7	Relevant government agencies cooperate on the implementation of the MHEWS and data management
	1.3 Level of institutional capacity and knowledge of Uzhydromet staff on monitoring and forecasting technologies and procedures	Level = 0[14] Using the UNDP Capacity Assessment Methodology[15], the project team will design a tailored assessment to	50% targeted staff (of a target audience of 600 people) trained (including 60% women/40% men) Institutional capacity assessment score for Uzhydromet enhanced by 20 % against baseline	100% targeted staff (of a target audience of 600 people) trained (including 60% women/40% men) Institutional capacity assessment score for Uzhydromet	- Inter-agency data available and accessible as inputs to the knowledge management platform - Inter-agency data-sharing agreement between agencies institutionalized and data-sharing protocols established - Decision support tool is available to and accessed by project sites

[14] Baseline for output 1.3 is to be established under activity 1.3 during Year 1 of the project through an institutional capacity assessment scorecard

[15] https://www.undp.org/content/dam/aplaws/publication/en/publications/capacity-development/undp-capacity-assessment-methodology/UNDP%20Capacity%20Assessment%20Users%20Guide.pdf

		establish a baseline of the institutional capacity of Uzhydromet staff at the project inception phase.		enhanced by 50 % against baseline	
Output 2 A functional Multi-Hazard Early Warning System is established based on innovative impact modelling, risk analyses, effective regional communication and community awareness.	2.1 Improvement in the timeliness of warnings received by end-users as a result of the impact-based integrated MHEWS[16]	2.1.1. Warnings about all hydrometeorological phenomena/hazards provided with 1-3 days lead time (before an event) in the absence of the impact based integrated MHEWS 2.1.2. Time required to communicate warnings from MES HQs to its regional divisions: 15 minutes; time required to communicate warnings to population: 60 minutes.	No change/ the new system will not be fully operational at scale by mid-term.	2.1.1. Warnings on sudden changes in weather covering most of the territory of the country - 4-6 days lead time Mudflow warnings - 3-4 days lead time Avalanche warnings - 4-5 days lead time 2.1.2. 50% reduction: time of communicating warnings from MES HQs to its regional divisions: 7.5 minutes; time of communicating warnings to population: 30 minutes.	- Relevant government agencies cooperate on the implementation of the MHEWS and data management - Uzhydromet and MES adequately capacitated - Existing exposure and hazard data inventoried and data gaps identified - Inventoried and reviewed available tools and technologies to facilitate climate risk profiling - Standard project implementation process for conducting climate risk profiling established through a consultative process - Disaster loss and damage curves developed - Exposure databases updated and centralized - Vulnerability of communities in eastern districts assessed - Climate-risk information on multi-hazards made available and accessible
	2.2 Level of institutional coordination among Uzhydromet, MES and RCMCs on multi-hazard early warnings responses and dissemination[17]	Level = 1	Level = 3	Level = 4	- Inter-agency data-sharing agreement between agencies institutionalized and data-sharing protocols established - national and regional CMC and other relevant government units are willing to cooperate and

[16] The scoring and end-user survey methodology for this indicator will be designed through activity 3.3 during Year 1 to capture user perceptions of the timeliness of warnings for different hazards. The survey will include institutional and individual users of MHEWS. Baseline survey/scoring will be conducted through activity 3.3 during Year 1.

[17] Level 1 = no institutional coordination mechanisms/SOPs; Level 2= an institutional coordination framework established/documents by not supported by clear SOPs on data exchange and communication, majority of surveyed institutional users are not fully aware/systematically engaged in coordination; Level 3 = at least 2 institutional coordination frameworks or Standard Operating Procedures (SOPs) in place among Uzhydromet, MES and RCMCs on data exchange, risk and hazards analysis, and warnings dissemination to regional crisis centers; 50% of surveyed institutional users (i.e. 10 out of 20) report that the level of coordination is adequate for performing their functions within MHEWS; Level 4 = At least 4 institutional coordination frameworks or Standard Operating Procedures (SOPs) in place among Uzhydromet, MES and RCMCs on data collection, archive, risk and hazards analysis, and warnings dissemination to regional crisis centers 80% of surveyed institutional users (i.e. 16 out of 20) report that the level of coordination is adequate for performing their functions within MHEWS.

					conduct regulatory and institutional reform
	2.3 Number of functional regional crisis management centres with access to area-specific early warnings, mobile alerts and risk mapping technologies	0 Currently, RCMCs are housed in offices that lack updated communication facilities (e.g. videoconferencing) as well as access to area-specific warnings and mobile alerts, as well as risk maps based on up to date hazard information	2 2 Regional Crisis Management Centers (RCMCs) equipped with visualization systems and have access to updated risk maps, area-specific hazard alerts and warning information. As a result, RCMCs will have improved capacity in communicating and responding to evolving emergencies.	7 7 Regional Crisis Management Centers (RCMCs) equipped with visualization systems and have access to updated risk maps, area-specific hazard alerts and warning information for risk mitigation and early actions	- Government undertakes office refurbishment and establishes power and internet connections - Government staffs RCMCs - Decision support tool is available to and accessed by project sites
Output 3: Strengthened climate services and disaster communication to end-users.	3.1 Level of user interaction in the co-design and co-production of disaster-related information, as a result of the establishment of a National Framework for Climate Services (NFCS) for Uzbekistan	Level = 1[18]	Level = 2	Level = 3	MES, Uzhydromet and relevant government agencies willing to cooperate on climate service and data management
	3.2 Number of revenue generation options based on delivery of disaster risk information products/services included in the business model and endorsed by institutional and sectoral users	0	0[19]	At least 3 revenue generation options based on disaster-related information/services endorsed by users/stakeholders from climate-sensitive sectors	MES, Uzhydromet and relevant government agencies willing to cooperate and mobilize private sector participation
	3.3 Number of communities in targeted areas[20] with improved access to early warning alerts through information board, mahalla training and info-products/meetings	0	12 50% of surveyed beneficiaries (incl. 50% female) in targeted communities report that the warnings and climate advisories are	20 75% of surveyed beneficiaries (incl. 50% female) in targeted communities report that the warnings and	Continued commitment and uptake of the information by targeted communities in the project

[18] Level 1: no institutional engagement channels with end-users exist; Level 2: a user-dialogue platform set up through NFCS consultation process to review the disaster-related information products; Level 3: a regular user-dialogue mechanism incorporated into the NFCS action plan and the National Climate outlook platform.

[19] Feasibility analysis for a sustainable value chain-based business model for disaster-related information and services will completed at this stage, and will be the basis for the consequent discussion and endorsement of revenue-generating options.

[20] The project has identified 15 districts located in seven provinces in eastern Uzbekistan as hazard-prone target regions. They are: Qoichirchik, Bostanlik, Sirdarya, Saihunabad, S. Rashidov, Gallaaral, Bulungur, Jambai, Koshrabad, Kitab, Yakkabag, Dehkanabad, Chust, Turakurgan, and Dangarin.

			clear, accessible and easy to apply for enhanced preparedness	climate advisories are clear, accessible and easy to apply for enhanced preparedness	
DO NOT INCLUDE ACTIVITIES OR INPUTS IN THIS PROJECT RESULTS FRAMEWORK					

VI. MONITORING AND EVALUATION (M&E) PLAN

The project results as outlined in the project results framework will be monitored and reported annually and evaluated periodically during project implementation to ensure the project effectively achieves these results. If baseline data for some of the results indicators are not yet available, it will be collected during the first year of project implementation. The Monitoring Plan included in ***Annex N*** details the roles, responsibilities, frequency of monitoring project results.

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

Additional M&E requirements will be undertaken following the GCF initial approach to monitoring and evaluation policy and other relevant GCF policies. The costed M&E plan included below, and the Monitoring plan in Annex N will guide the GCF-specific M&E activities to be undertaken by this project.

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

GCF monitoring and reporting requirements:

Inception Workshop and Report: A project inception workshop will be held after the Funded Activity Agreement becomes effective, with the aim to:

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

The inception report is to be submitted to GCF within six months of project start (i.e. Funded Activity Agreement effectiveness). The inception report will be cleared by the UNDP Country Office and the NCE-VF Regional Technical Adviser and approved by the Project Board.

GCF Annual Performance Report (APR) (due 1 March each year of project implementation):

The annual GCF APR covering the reporting period from January to December will be completed for each year of project implementation. The APR will include reporting of environmental and social risks and related management plans, gender, co-financing and financial commitments, GCF 'conditions precedent' outlined in the FAA, amongst other issues. The APR submitted to the GCF shall be shared with the Project Board.

The Project Manager, the UNDP Country Office, and the NCE-VF Regional Technical Advisor will provide objective input to the 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.

The Annual Project Report submitted to the GCF will also be shared with the Project Board. The UNDP Country Office 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.

The last APR (i.e. Project Completion Report) will be due for submission within 3 months after the project completion date.

Knowledge management: The project team will ensure extraction and dissemination of lessons learned and good practices to enable adaptive management and upscaling or replication at local and global scales. Results will be disseminated to targeted audiences through relevant information sharing fora and networks. The project will contribute to scientific, policy-based and/or any other networks as appropriate (e.g. by providing content, and/or enabling the participation of stakeholders/beneficiaries).

Interim Independent Evaluation Report (IER):
An interim independent evaluation report will be completed by within three (months) after Year 3 from the Effective Date.

The terms of reference, the review process and the final IER report will follow the standard templates and guidance prepared by the UNDP IEO for GCF-financed projects available on the UNDP Evaluation Resource Center (ERC). The evaluation will be 'independent, impartial and rigorous'. The consultants that will be hired by UNDP evaluation specialists to undertake the assignment will be independent of organizations that were involved in designing, executing or advising on the project to be evaluated. Equally, the consultants should not be in a position where there may be the possibility of future contracts regarding the project being reviewed.

The GCF NDA and other stakeholders will be involved and consulted during the evaluation process. Additional quality assurance support is available from the NCE-VF Directorate.

The final interim evaluation report will be available in English and will be cleared by the UNDP Country Office and the NCE-VF Regional Technical Adviser, and approved by the Project Board.

The final IER report and IER TOR will be publicly available in English and will be posted on the UNDP ERC by 19 October 2024. A management response to IER recommendations will be posted in the ERC within six weeks of the IER report's completion.

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

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

The GCF NDA and other stakeholders will be involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the NCE-VF Directorate.

A final independent evaluation report will be completed by January 2028 i.e., no later than three months before the operational closure of the project.

The final evaluation report will be cleared by the UNDP Country Office and the NCE-VF Regional Technical Adviser and will be approved by the Project Board.

The final TE report and TE TOR will be publicly available in English and posted on the UNDP ERC by 19 January 2028. A management response to the TE recommendations will be posted to the ERC within six weeks of the TE report's completion.

Final Report:
The project's final APR 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.

The UNDP Country Office will retain all M&E records for this project for up to seven years after project financial closure to support ex-post evaluations. A detailed M&E budget, monitoring plan and evaluation plan will be included in the UNDP project document.

UNDP will perform monitoring and reporting throughout the reporting period following the AMA and Funded Activity Agreement (FAA). UNDP has a country presence and capacity to perform such functions. In the event of any additional post-implementation obligations over and above the AMA, UNDP will discuss and agree on these with the GCF Secretariat in the final year of the project and will prepare a post-implementation monitoring plan and budget for approval by the GCF Board as necessary.

Agreement on intellectual property rights and use of the logo on the project's deliverables and disclosure of information: To accord proper acknowledgement to the GCF for providing grant funding, the GCF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GCF will also accord proper acknowledgement to the GCF. Information will be disclosed following relevant policies notably the UNDP Disclosure Policy[21] and the GCF Disclosure Policy[22]. See also GCF Branding Guidelines.

Carbon offsets or units: As outlined in the AMA agreement between UNDP and the GCF, to the extent permitted by applicable laws and regulations, the Implementing Partner will ensure that any greenhouse gas emission reductions (e.g. in emissions by sources or an enhancement of removal by sinks) achieved by this project shall not be converted into any offset credits or units generated thereby, or if so converted, will be retired without allowing any other emissions of greenhouse gases to be offset.

GCF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget[23] (US$)	Time frame
Inception Workshop	Implementing Partner UNDP Country Office Project Manager	None	Within three (3) months from the first disbursement
Inception Report and baseline assessments	Project Manager UNDP Country Office	None	Within six (6) months after Effective Date

[22] See https://www.greenclimate.fund/documents/20182/184476/GCF_B.12_24_-_Comprehensive_Information_Disclosure_Policy_of_the_Fund.pdf/f551e954-baa9-4e0d-bec7-352194b49bcb
[23] Excluding project team staff time and UNDP staff time and travel expenses.

GCF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget[23] (US$)	Time frame
GCF Annual Project Report	Project Manager UNDP Country Office NCE-VF Regional Technical Adviser	None	Annually as per FAA 1 March each year of project implementation
Audit of Implementing Partner as per UNDP audit policies	UNDP Country Office	*UNDP CO expense*	As per UNDP Audit policies
Lessons learned, case studies, and knowledge generation	Project Manager M&E Officer	None	On-going
Monitoring of gender action plan	Project Manager Project Gender Officer	Per year 8,000 USD Total for 6 years: 48,000 USD	On-going
Monitoring of stakeholder engagement plan	Project Manager Project Gender Officer Implementing Partner – MES UNDP Country Office	None	On-going
Addressing environmental and social grievances	Project Manager Project Gender Officer UNDP Country Office BPPS as needed Implementing partner – MES National grievance mechanism – PB District-level grievance mechanism – District-level Grievance Redress Committee Community-level grievance mechanism – Community Project Grievance Redress Committee	*Per year: 8,000 USD* *Total for 6 years – 48,000 USD*	*Costs associated with missions, workshops, BPPS expertise etc. can be charged to the project budget.*
Project Board meetings	Project Board UNDP Country Office PM	Per year: 1,500 USD Total for 6 years = 9,000 USD	At minimum annually
Supervision missions	UNDP Country Office	None[24]	Two per year
Oversight missions	RTA NCE-VF Unit	None[25]	Troubleshooting as needed
GCF learning missions/site visits	UNDP Country Office and Project Manager and NCE-VF Unit	*As per the project plan for monitoring/site visiting*	To be determined.
Interim independent evaluation (add additional lines if more than one interim evaluation is required)	Independent evaluators	21,500 USD	By 19 October 2024
Oversight of MTR process and MTR management response	UNDP Country Office and BPPS/GEF	None	
Final independent evaluation	Independent evaluators	43,000 USD	By 19 January 2028
Translation of evaluation reports into English	UNDP Country Office	None	As required. GCF will only accept reports in English.

[24] The costs of UNDP Country Office and NCE-VF Unit's participation and time are charged to the GCF Agency Fee.
[25] The costs of UNDP Country Office and NCE-VF Unit's participation and time are charged to the GCF Agency Fee.

GCF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget[23] (US$)	Time frame
Oversight of TE process and TE management response	UNDP	None	
TOTAL indicative COST Excluding project team staff time, and UNDP staff and travel expenses		*181,500 USD*	

VII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

Roles and responsibilities of the project's governance mechanism:

Implementing Partner: The Implementation Partner (GCF Executing Entity) for this project is the Ministry of Emergency Situations of the Republic of Uzbekistan (MES).

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

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

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

UNDP will provide support services to IP based on the request of the MES and signing the LOA for provision of support services by UNDP.

Responsible Party: The responsible party for this project is the Centre of Hydrometeorological Services of the Republic of Uzbekistan (Uzhydromet) that will assist in successfully delivering the project outcome under Output 1. Uzhydromet will be responsible for successful implementation of Output 1. of the project, where MES has the overall management and coordination role for the project. The project implementation framework is aligned with this national regulation.

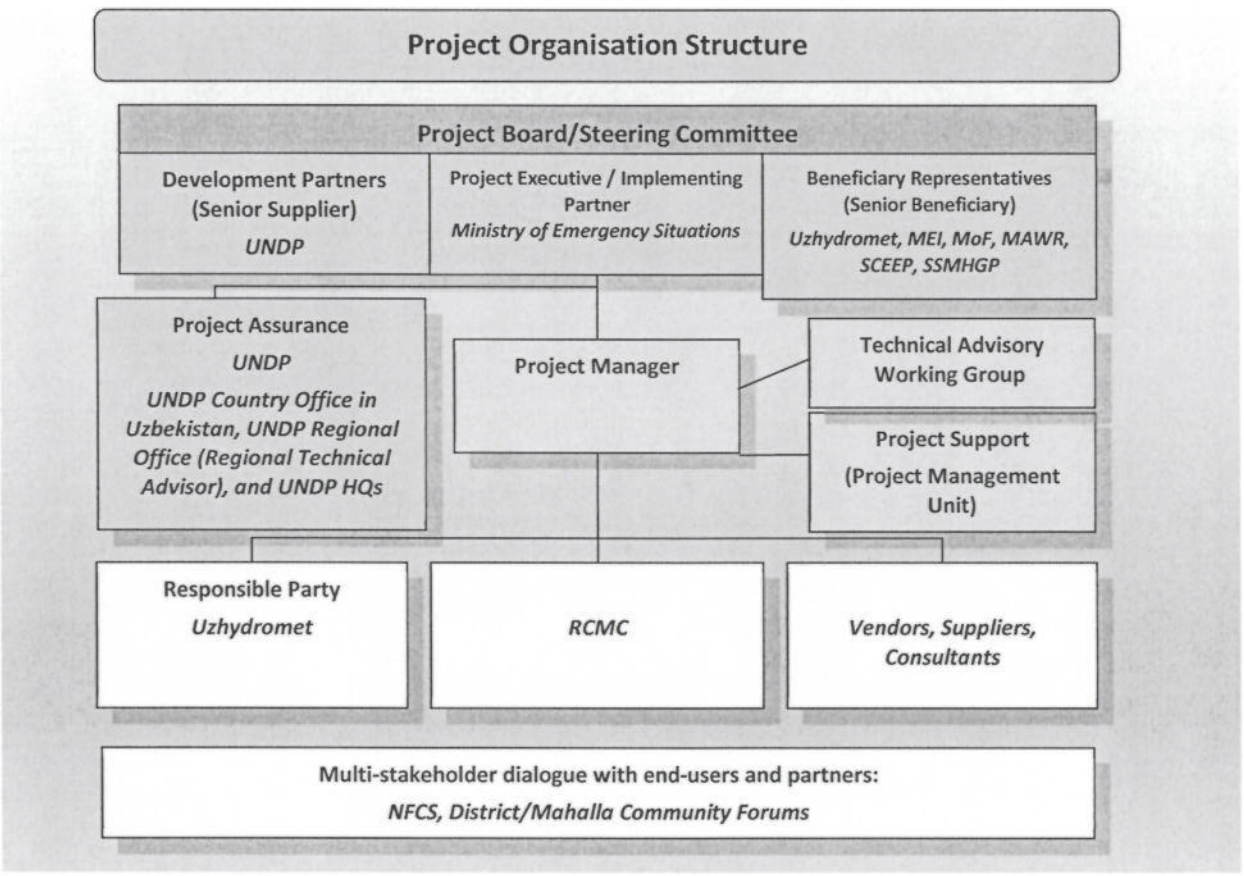
Project stakeholders and target groups: In addition to the responsible party, project stakeholders include:

- Ministry of Economy and Industry;
- Ministry of Finance;
- Ministry of Agriculture and Water Resources;
- State Committee for Ecology and Environment Protection;
- State Service of the Republic of Uzbekistan on Monitoring of Hazard Geologic Processes;
- Ministry of Higher and Secondary Special Education of the Republic of Uzbekistan (MHSSE);
- Ministry of Public Education (MPE);
- Ministry of Investments and Foreign Trade of the Republic of Uzbekistan IMIFT);
- Regional governments – Khokimiyats;
- Local governments;
- Makhalla committees;
- 15 target communities;
- National NGOs;
- Red Crescent Society;
- Women and youth associations;
- Educational and academic institutions;
- Satellite mobile companies;
- WMO;
- Mass media;
- Private sector entities.

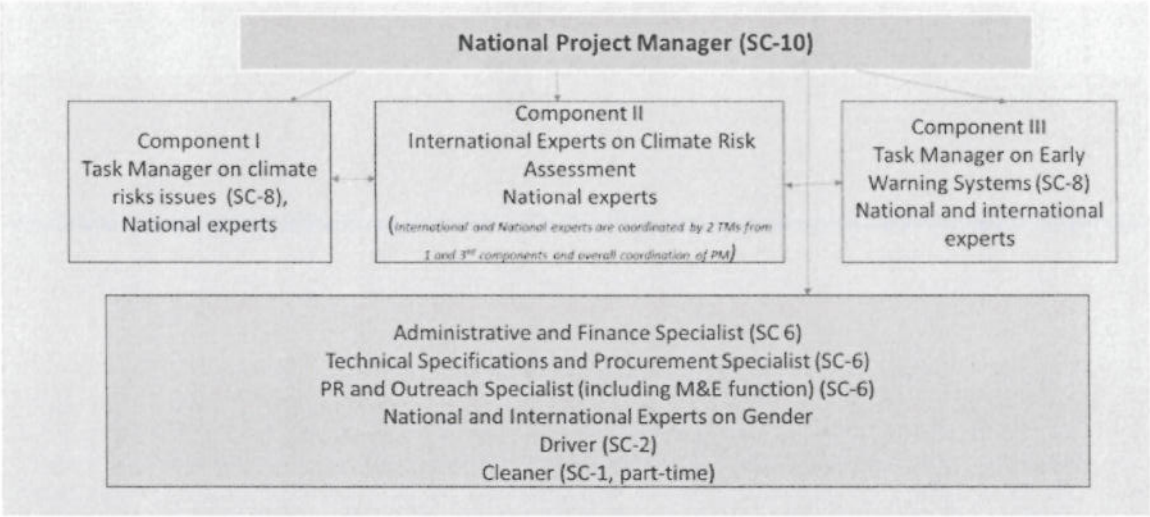
The key means for stakeholder engagement will be working groups meetings, stakeholder workshops, training/ToT, communication in mass media including social media, etc.

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

Project organisation structure:



Project Management Unit



Project Board: The Project Board (also called Project Steering Committee) is responsible for taking corrective action as needed to ensure the project achieves the desired results. To ensure UNDP's ultimate accountability, Project Board decisions should be made following standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition.

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

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 mitigation and management actions to address specific risks;
- Agree on project manager's tolerances as required, within the parameters set by NCE-VF, and provide direction and advice for exceptional situations when the project manager's tolerances are exceeded;
- Advise on major and minor amendments to the project within the parameters set by NCE-VF;
- Ensure coordination between the various donor and government-funded projects and programmes;
- Ensure coordination with various government agencies and their participation in project activities;
- Track and monitor co-financing for this project;
- Review the project progress, assess performance, and appraise the Annual Work Plan for the following year;
- Appraise the annual project implementation report, including the quality assessment rating report;
- Ensure commitment of human resources to support project implementation, arbitrating any issues within the project;
- Review combined delivery reports before certification by the implementing partner;
- Provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
- Address project-level grievances;
- Approve the project Inception, Interim Evaluation and Terminal Evaluation reports and corresponding management responses;

- Review the final project report package during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

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

Project Executive: Is an individual who represents ownership of the project and chairs the Project Board. The Executive is normally the national counterpart for nationally implemented projects. The Project Executive is:
Ministry of Emergency Situations (person to be nominated)

Beneficiary Representative(s): Individuals or groups representing the interests of those who will ultimately benefit from the project. Their primary function within the board is to ensure the realization of project results from the perspective of project beneficiaries. Often civil society representative(s) can fulfil this role. The Beneficiary representative (s) is/are:
General Director, Uzhydromet
Representative of the Ministry of Economic Development and Poverty Reduction
Representative of the Ministry of Finance
Representative of the Ministry of Agriculture
Representative of the Ministry Water Resources,
Representative of the State Committee for Ecology and Environment Protection,
Representative of the State Service of the Republic of Uzbekistan on Monitoring of Hazard Geologic Processes

Development Partner(s): Individuals or groups representing the interests of the parties concerned that provide funding and/or technical expertise to the project (and can include UNDP in a NIM project). The Development Partner(s) is/are:
Ms. Matilda Dimovska, UNDP Resident Representative

Project Assurance: UNDP performs the quality assurance role and supports the Project Board and Project Management Unit by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. UNDP provides three-tier oversight services involving the UNDP Country Offices and UNDP at regional and headquarters levels. Project assurance is independent of the Project Management function.

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

VIII. FINANCIAL PLANNING AND MANAGEMENT

The total cost of the project is ***USD 40,639,355***. This is financed through a GCF grant of ***USD 9,999,455*** and ***USD 30,639,880*** in other (parallel) co-financing. UNDP is responsible for the oversight of the GCF resources and the cash co-financing transferred to the UNDP bank account only.

Project Financing

Component	Output	Financing (USD)			Total cost per Output (USD)
		GCF	Uzhydromet (co-financing)	MES (co-financing)	
Component 1: Enhanced efficiency and coverage of multi-hazard early warning system for climate change-induced hazards in Uzbekistan given the projected climate change impacts	*Output 1. Upgraded hydro-meteorological observation network, modelling and forecasting capacities*	4,509,395	3,985,730		8,495,125
	Output 2. Establish a functional Multi-Hazard Early Warning System based on innovative impact modelling, risk analyses, effective regional communication and community awareness	3,098,400		21,329,656	24,428,056
	Output 3. Strengthened climate services and disaster communication to end users	1,915,880		3,792,500	5,708,380
	Output 4. Project Management Costs	475,780	209,775	1,322,219	2,007,774
	Total:	**9,999,455**	**4,195,505**	**26,444,375**	**40,639,355**

Co-finance monitoring: The actual realization (materialization) of project co-financing will be monitored annually and will be reported to the GCF through annual progress reports. Signed letters from co-financiers are provided to confirm the amounts that have materialized for the respective year.

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

Co-financing source	Co-financing type/financial instrument	Co-financing amount	Planned Co-financing Activities/Outputs	Risks	Risk Mitigation Measures
Uzhydromet	*Co-financing cash*	*1,215,789 $*	*Output 1 – Upgraded hydro-meteorological observation network, modelling and forecasting capacities (Equipment and Professional services for upgrading, installation and modernizing of AWS, upper-air stations and radar system)*	Co-financing not realized due to change in priorities and/or availability of funds	Permanent and close engagement by UNDP with key partners to ensure project investment as a priority
Uzhydromet	*Co-financing in-kind*	*2,769,941*	*Output 1 – Upgraded hydro-meteorological observation network, modelling and forecasting capacities (Equipment and Professional services for upgrading, installation and modernizing*	Co-financing not realized due to change in priorities and/or availability of funds	Permanent and close engagement by UNDP with key partners to ensure project investment as a priority

			of AWS, upper-air stations and radar system)		
Uzhydromet	*Co-financing in-kind*	*209,775 $*	*Output 4 – Project Management Costs (Co-financing management costs of Uzhydromet)*	Co-financing not realized due to change in priorities and/or availability of funds	Permanent and close engagement by UNDP with key partners to ensure project investment as a priority
MES	*Co-financing cash/in-kind*	*21,329,656 $*	*Output 2 - Establish a functional Multi-Hazard Early Warning System based on innovative impact modelling, risk analyses, effective regional communication and community awareness (Equipment and Professional services for setting up information visualization system for RCMCs)*	Co-financing not realized due to change in priorities and/or availability of funds	Permanent and close engagement by UNDP with key partners to ensure project investment as a priority
MES	*Co-financing cash/in-kind*	*3,792,500 $*	*Output 3 - Strengthened climate services and disaster communication to end-users (Equipment and Professional services for setting up communication audio-visual equipment)*	Co-financing not realized due to change in priorities and/or availability of funds	Permanent and close engagement by UNDP with key partners to ensure project investment as a priority
MES	*Co-financing cash/in-kind*	*1,322,219 $*	*Output 4 - Project Management Costs (Co-financing management costs of MES)*	Co-financing not realized due to change in priorities and/or availability of funds	Permanent and close engagement by UNDP with key partners to ensure project investment as a priority

GCF Disbursement schedule: GCF grant funds will be disbursed according to the GCF disbursement schedule. The Country Office will submit an annual work plan to the NCE-VF Unit and comply with the GCF milestones for the next tranche of project funds to be released. All efforts must be made to achieve 80% delivery annually to accomplish the expected outputs/activities in a timely manner, within the planned duration to avoid extension of the project.

Disbursement	GCF proceeds (USD)	Indicative Disbursement Schedule
Disbursement 1	1,075,950	October 2021
Disbursement 2	2,562,668	June 2022
Disbursement 3	4,149,581	June 2023
Disbursement 4	797,373	June 2024
Disbursement 5	825,873	June 2025
Disbursement 6	588,010	June 2026
Total	**9,999,455**	

Direct Project Services as requested by Government: services provided to the government directly under NIM. The UNDP Country Office will also deliver a pre-determined set of project-specific execution services at the request of the Government. To ensure the strict independence required by the GCF and in accordance with the UNDP Internal Control Framework, these execution services should be delivered independent from the GCF-specific oversight and quality assurance services (i.e. not done by the same person to avoid conflict of interest).

These execution services will be charged to the project budget following the UNDP's Harmonized Conceptual Funding Framework and Cost Recovery Methodology and Partner Capacity Assessment Tool (PCAT). Completing the partner capacity assessment is required early during the project preparation stage and it has been completed. The partner capacity assessment ***(Annex L)*** tool considers project management capacities and the assessment also informs decisions on the use of national implementation and the role of UNDP in providing support services at the request of the Implementing Partner. If the Implementing Partner requests UNDP support services (both Technical and Administrative Support Services) these costs need to be transparently and correctly budgeted in the TBWP and approved by GCF.

The government has requested UNDP to undertake the following services: HR services in selection, hiring, separation, contracting, and/or contract administration of project personnel.; procurement services in procurement of goods or services for the project, covering the entire procurement cycle tasks, transport, storage, distribution, on-site receipting of goods, logistics, etc.; finance and admin services on undertaking direct project payment requests. These services cannot be the same as the GCF services UNDP is required to provide at the request of the GCF as these are covered by the GCF fee. The Implementing Partner and GCF National Designated Authority have requested UNDP to provide support services in the amount of in the amount of ***USD 140,000*** for the full duration of the project for the full duration of the project. The **request letter** (signed by the GCF National Designated Authority and the IP) and the signed letter of agreement between UNDP and the Implementing Partner detailing these support services are included in Annex K. To ensure the strict independence required by the GCF and in accordance with the UNDP Internal Control Framework, these execution services should be delivered independent from the GCF-specific oversight and quality assurance services (i.e. not done by same person to avoid conflict of interest).

Budget Revision and Tolerance:

Any reallocation of the GCF grant among the outputs that result in a variation of more than 10% of the GCF agreed budget for that output must be approved by the GCF in advance.

Any increase in the amount allocated to project management costs must be communicated by the Accredited Entity to the Fund and approved in writing by the Fund in advance.

Any reallocation of the GCF Proceeds among the Funded Activity Outputs described in Part A of Schedule 2 of the FAA resulting in a variation of more than ten per cent (10%) of the previously agreed Budget for the Output from which and to which the funds are to be reallocated must be approved in writing by the Fund in advance. Notwithstanding the above, any increase in the amount allocated to project management costs in Part A of Schedule 2 must be communicated by the Accredited Entity to the Fund and approved in writing by the Fund in advance.

Any budget reallocation involving a major change in the project's scope, structure, design, or objectives or any other change that substantially alters the purpose or benefit of the project requires the GCF's prior written consent.

As per UNDP requirements outlined in the UNDP POPP, the Project Board will agree on a budget tolerance level for each plan under the overall annual work plan allowing the project manager to expend up to the tolerance level beyond the approved project budget amount for the year without requiring a revision from the Project Board (within the GCF requirements noted above). Should such deviation occur, the Project Manager and UNDP Country office will seek the approval of the NCE-VF Unit.

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

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

Project completion: Project completion will be conducted as per UNDP requirements outlined in the UNDP POPP. Please note that extensions of the timeline for project closure will require consultations with the GCF and possible further action, as per the instruction of the GCF. Please see the GCF policy on cancellation and restructuring. The only costs a project may incur following the final project review are those included in the project completion budget.

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

Transfer or disposal of assets: In consultation with the NIM Implementing Partner and other parties of the project, UNDP programme manager (UNDP Resident Representative) is responsible for deciding on the transfer or other disposal of assets. Transfer or disposal of assets is recommended to be reviewed and endorsed by the project board following UNDP rules and regulations. Assets may be transferred to the government for project activities managed by a national institution at any time during the life of a project. In all cases of transfer, a transfer document must be prepared and kept on file[26]. The transfer should be done before Project management Unit (team) complete their assignments.

In addition, the following GCF requirements must be followed: As stated in Clause 9.03 of the Funding Activity Agreement included in Annex[1], the Accredited Entity shall inform the GCF, in the final Annual Progress Report (APR), which steps it intends to take in relation to the durable assets and/or equipment purchased with the GCF Proceeds to implement the Funded Activity.

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

The project is required to be financially completed within 12 months of operational closure or after the date of cancellation. Between operational and financial closure, the implementing partner will identify and settle all financial obligations and prepare a final expenditure report. The UNDP Country Office will send the final signed closure documents including confirmation of final cumulative expenditure and unspent balance to the NCE-VF Unit for confirmation before the project will be financially closed in Atlas by the UNDP Country Office.

Refund to GCF: Should a refund of unspent funds to the GCF be necessary, this will be managed directly by the NCE-VF Directorate in New York. No action is required at the CO level on the actual refund from the UNDP project to the GCF.

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

[1] 23.04 of the AMA states: " In relation to a Funded Activity that is a grant financed in whole or in part with GCF Proceeds, if any part of such grant is used to purchase any durable assets or equipment used to implement the relevant Funded Activity (such as vehicles or office equipment), upon completion of the Funded Activity or termination of the relevant FAA in accordance with its terms, the Accredited Entity shall take such steps in relation to such assets or equipment which it reasonably deems in the best interest of the continued operation of the Funded Activity taking into consideration the objectives of the Fund and the terms of the applicable SBAA."

IX. TOTAL BUDGET AND WORK PLAN

TOTAL BUDGET AND WORK PLAN			
Atlas[1] Proposal or Award ID:	120487	Atlas Primary Output Project ID:	116677
Atlas Proposal or Award Title:	Enhancing Multi-Hazard Early Warning System		
Atlas Business Unit	UZB10		
Atlas Primary Output Project Title	Enhancing Multi-Hazard Early Warning System		
UNDP-GEF PIMS No.	6218		
Implementing Partner	Ministry of Emergency Situations of the Republic of Uzbekistan (MES)		

Output	Responsible Party /[1] (Atlas Implementing Agent)	Fund ID	Donor Name	Activity	Funding Source	Atlas Budgetary Account Code	Budget Categories	Amount Year 1	Amount Year 2	Amount Year 3	Amount Year 4	Amount Year 5	Amount Year 6	Total Budget	Budget Note
Output 1. Upgraded hydro-meteorological observation network, modelling and forecasting capacities	UNDP	66000	GCF	1.1: Upgrading and modernization of the meteorological and hydrological Observation System	GCF	72100	Contractual Services - Companies	130.834,00	310.834,00	90.833,00	10.833,00	10.833,00	10.833,00	565.000,00	A1
					GCF	72200	Equipment and Furniture	252.312,00	1.140.780,00	598.208,00	-	-	-	1.991.300,00	A2
					GCF	71400	Contractual Services - Individual	14.800,00	14.800,00	14.800,00	14.800,00	14.800,00	-	74.000,00	A3
				Total GCF Activity 1.1				397.946,00	1.466.414,00	703.841,00	25.633,00	25.633,00	10.833,00	2.630.300,00	
				1.2: Upgrading Uzhydromet's capacity to store, process and develop hazard products, as well as to communicate	GCF	72200	Equipment and Furniture	-	150.000,00	20.000,00	-			170.000,00	A4
					GCF	72400	Communic & Audio Visual Equip	-	-	70.000,00	-	-	-	70.000,00	A5
					GCF	72100	Contractual Services - Companies	-	100.000,00	375.000,00	-	-	-	475.000,00	A6

				hydrometeorological data to regional division	GCF	71300	Local Consultants	260.625,00	364.875,00	-	-	-	-	625.500,00	A7
					GCF	71400	Contractual Services - Individual	8.220,00	8.220,00	8.220,00	8.220,00	8.220,00	8.220,00	49.320,00	A8
					GCF	74200	Audio Visual & Print Prod Costs	-	35.000,00	35.000,00				70.000,00	A9
					GCF	71600	Travel	2.000,00	2.000,00	2.000,00	2.000,00	2.000,00	2.000,00	12.000,00	A10
				Total GCF Activity 1.2				270.845,00	660.095,00	510.220,00	10.220,00	10.220,00	10.220,00	1.471.820,00	
				1.3: Retraining and advanced training of Uzhydromet staff on monitoring and forecasting technologies and procedures	GCF	71300	Local Consultants	5.213,00	5.213,00	5.213,00	5.212,00	5.212,00	5.212,00	31.275,00	A11
					GCF	71400	Contractual Services - Individual	21.000,00	21.000,00	21.000,00	21.000,00	21.000,00	21.000,00	126.000,00	A12
					GCF	72100	Contractual Services - Companies	-	50.000,00	60.000,00	50.000,00	50.000,00	40.000,00	250.000,00	A13
				Total GCF Activity 1.3				26.213,00	76.213,00	86.213,00	76.212,00	76.212,00	66.212,00	407.275,00	
Total GCF Output 1								**695.004,00**	**2.202.722,00**	**1.300.274,00**	**112.065,00**	**112.065,00**	**87.265,00**	**4.509.395,00**	
Total Co-financing (Uzhydromet) Output 1								**890.796,00**	**565.530,00**	**693.667,00**	**663.140,00**	**693.667,00**	**478.930,00**	**3.985.730,00**	UZHYDRO1
Sub-total Output 1								**1.585.800,00**	**2.768.252,00**	**1.993.941,00**	**775.205,00**	**805.732,00**	**566.195,00**	**8.495.125,00**	
Output 2. A functional Multi-Hazard Early Warning System is established based on innovative impact modelling, risk analyses, effective regional	**UNDP**	**66000**	**GCF**	2.1: Developing and installing a modernised and efficient system for assessing climate risks based on dynamic information on both hazards and vulnerabilities, including socio-economic risk	GCF	72100	Contractual Services - Companies			2.050.000,00				2.050.000,00	B1
					GCF	71200	International Consultants			33.360,00	33.360,00	33.360,00		100.080,00	B2

communication and community awareness				models for decision making and prioritization of resilience-building long-term/future investments	GCF	71600	Travel	2.000,00	2.000,00	6.000,00	6.000,00	6.000,00	2.000,00	24.000,00	B3
				Total GCF Activity 2.1				2.000,00	2.000,00	2.089.360,00	39.360,00	39.360,00	2.000,00	2.174.080,00	
				2.2 Developing and introducing technical guidance, institutional and coordination frameworks to increase the efficiency of data collection and archiving; hazard mapping and modelling; risk assessment; and dissemination of information to RCMCs	GCF	71200	International Consultants		-	20.000,00	20.000,00	20.000,00	-	60.000,00	B4
					GCF	71400	Contractual Services - Individual	8.220,00	8.220,00	8.220,00	8.220,00	8.220,00	8.220,00	49.320,00	B5
					GCF	71300	Consultant - Individual - Local	-	-	30.000,00	30.000,00	30.000,00	-	90.000,00	B6
				Total GCF Activity 2.2				8.220,00	8.220,00	58.220,00	58.220,00	58.220,00	8.220,00	199.320,00	
				2.3 Designing and implementing a system for information dissemination to RCMCs and area-specific mobile alerts including an information visualization system for RCMCs with software	GCF	72100	Contractual Services - Companies	140.000,00	55.000,00	310.000,00	110.000,00	110.000,00	-	725.000,00	B7, B8
				Total GCF Activity 2.3				140.000,00	55.000,00	310.000,00	110.000,00	110.000,00	-	725.000,00	

Total GCF Output 2								**150.220,00**	**65.220,00**	**2.457.580,00**	**207.580,00**	**207.580,00**	**10.220,00**	**3.098.400,00**	
Total Co-financing (MES) Output 2								**4.956.506,00**	**2.960.880,00**	**2.960.880,00**	**2.960.880,00**	**2.960.880,00**	**4.529.630,00**	**21.329.656,00**	MES 1
Sub-total Output 2								**5.106.726,00**	**3.026.100,00**	**5.418.460,00**	**3.168.460,00**	**3.168.460,00**	**4.539.850,00**	**24.428.056,00**	
Output 3. Strengthened climate services and disaster communication to end-users	**UNDP**	**66000**	**GCF**	3.1: Establishing a National Framework for Climate Services for Uzbekistan	GCF	71200	International Consultants	16.000,00	36.000,00	-	-	20.000,00	-	72.000,00	C1
					GCF	71300	Local Consultants	-	10.000,00	-	-	5.000,00	-	15.000,00	C2
					GCF	71400	Contractual Services - Individual	5.480,00	5.480,00	5.480,00	5.480,00	5.480,00	5.480,00	32.880,00	C3
					GCF	72100	Contractual Services - Companies	-	5.000,00	-	-	5.000,00	-	10.000,00	C4
					GCF	71600	Travel	-	3.500,00	-	-	3.500,00	-	7.000,00	C5
				Total GCF Activity 3.1				21.480,00	59.980,00	5.480,00	5.480,00	38.980,00	5.480,00	136.880,00	
				3.2 Designing sustainable business model for disaster-related information and services	GCF	71200	International Consultants	-	20.000,00	20.000,00	8.000,00	-	-	48.000,00	C6
					GCF	71300	Local Consultants	-	4.000,00	4.000,00	1.000,00	-	-	9.000,00	C7
				Total GCF Activity 3.2				-	24.000,00	24.000,00	9.000,00	-	-	57.000,00	
				3.3 Strengthening disaster warming dissemination and communication with end-users	GCF	72400	Communic & Audio Visual Equip	-	-	175.000,00	280.000,00	280.000,00	280.000,00	1.015.000,00	C8
					GCF	74200	Audio Visual & Print Prod Costs	15.000,00	25.000,00					40.000,00	C9
					GCF	72100	Contractual Services - Companies	13.000,00	18.000,00	10.500,00	15.500,00	10.500,00	15.500,00	83.000,00	C10
					GCF	71300	Local Consultants	30.000,00	40.000,00	30.000,00	40.000,00	30.000,00	40.000,00	210.000,00	C11
					GCF	71400	Contractual Services - Individual	39.000,00	39.000,00	39.000,00	39.000,00	39.000,00	39.000,00	234.000,00	C12

					GCF	71200	International Consultants	4.332,00	4.332,00	25.834,00	4.335,00	25.835,00	25.832,00	90.500,00	C13
					GCF	71600	Travel	3.000,00	9.500,00	7.000,00	9.500,00	7.000,00	13.500,00	49.500,00	C14
				Total GCF Activity 3.3				104.332,00	135.832,00	287.334,00	388.335,00	392.335,00	413.832,00	1.722.000,00	
Total GCF Output 3								**125.812,00**	**219.812,00**	**316.814,00**	**402.815,00**	**431.315,00**	**419.312,00**	**1.915.880,00**	
Total Co-financing (MES) Output 3								**350.000,00**	**482.000,00**	**482.000,00**	**482.000,00**	**482.000,00**	**1.514.500,00**	**3.792.500,00**	MES 2
Sub-total Output 3								**475.812,00**	**701.812,00**	**798.814,00**	**884.815,00**	**913.315,00**	**1.933.812,00**	**5.708.380,00**	
Project Management Costs	**UNDP**	**66000**	**GCF**	Project Management Unit (PMU)	GCF	71400	Contractual Services - Individual	41.680,00	41.680,00	41.680,00	41.680,00	41.680,00	37.980,00	246.380,00	PMU 1
					GCF	71300	Local Consultants	2.400,00	2.400,00	2.400,00	2.400,00	2.400,00	2.400,00	14.400,00	PMU 2
					GCF	72100	Contractual Services - Companies	14.500,00	4.500,00	4.500,00	4.500,00	4.500,00	4.500,00	37.000,00	PMU 3
					GCF	72200	Equipment and Furniture	20.000,00	-	-	-	-	-	20.000,00	PMU 4
					GCF	72500	Supplies	3.000,00	3.000,00	3.000,00	3.000,00	3.000,00	3.000,00	18.000,00	PMU 5
					GCF	64397	Services to Projects – CO staff	23.334,00	23.334,00	23.333,00	23.333,00	23.333,00	23.333,00	140.000,00	PMU 6
Total GCF Project Management Costs								**104.914,00**	**74.914,00**	**74.913,00**	**74.913,00**	**74.913,00**	**71.213,00**	**475.780,00**	
Total Co-financing (Uzhydromet) Project Management Costs								**34.963,00**	**34.962,00**	**34.963,00**	**34.963,00**	**34.962,00**	**34.962,00**	**209.775,00**	UZHYDRO2
Total Co-financing (MES) Project Management Costs								**220.370,00**	**220.370,00**	**220.370,00**	**220.370,00**	**220.370,00**	**220.369,00**	**1.322.219,00**	MES 3
Sub-total Project Management Costs								**360.247,00**	**330.246,00**	**330.246,00**	**330.246,00**	**330.245,00**	**326.544,00**	**2.007.774,00**	
GCF								**1.075.950,00**	**2.562.668,00**	**4.149.581,00**	**797.373,00**	**825.873,00**	**588.010,00**	**9.999.455,00**	

Uzhydromet (Co-financier 1)	925.759,00	600.492,00	728.630,00	698.103,00	728.629,00	513.892,00	4.195.505,00	
Ministry of Emergency Situations, MES (Co-financier 2)	5.526.876,00	3.663.250,00	3.663.250,00	3.663.250,00	3.663.250,00	6.264.499,00	26.444.375,00	
TOTAL PROJECT	7.528.585,00	6.826.410,00	8.541.461,00	5.158.726,00	5.217.752,00	7.366.401,00	40.639.335,00	

Budget Notes:

Budget Note	Account Category	Description	Quantity	Unit cost (USD)	Total
A1	Contractual Services - Companies / Int-Serv	Equipment for upgrading and installation of AWS, Project safeguards (ESAP)			**$565,000**
		a) Installation of 25 automated meteorological stations (AWS)	25	$20,000	$500,000
		b) A national organization to be conducted for the implementation of risk management measures identified in SESP, including: - National experts to secure/oversee implementation of required risk management measures; - Before any works, a rapid assessment consistent with international standards such as state of the rivers to be undertaken to identify any sensitive receptors and where observed works to be re-sited; - The contractors actively consider any sensitive receptors including communities and environmental habitats throughout the infrastructure construction process; noise shields and other mitigation tools to be used if needed; - Engaging conservation specialists (aquatic ecologist, botanist, and arboreal animal spotter) before construction and/or renovation work to ensure no important flora and fauna species are impacted.	1	$65,000	$65,000
A2	Equipment and Furniture	Equipment and professional services for upgrading and installation of AWS, modernizing upper-air stations, establishing on-line radar systems, upgrading technical requirement of hydrological observation network and upgrading meteorological services with benchmarks for instrumentation calibration			**$1,991,300**
		Sensors: precipitation (weighing-type rain and snow gauge)	6	$3,000	$18,000
		Sensors: sight distance and actual weather	7	$3,000	$21,000
		Sensors: cloud base height	5	$15,000	$75,000
		Sensors: snow cover height	10	$1,500	$15,000
		Sensors: depth profile of soil temperature at 4 levels	18	$600	$10,800
		Sensors: soil moisture at the levels: -5, -10, -20 cm	18	$500	$9,000

Budget Note	Account Category	Description	Quantity	Unit cost (USD)	Total
		Power supply: accumulators for uninterrupted operation for 72 hours	10	$500	$5,000
		Power supply: solar panel with capacity 250 W accumulators 200 A/h	15	$1,500	$22,500
		Converter 12/24 V			
		Accumulator charge control unit 50 A/h 12/24 V			
		Connectors and containers (box)			
		Data transmission and Reception: Radio station (HF range) complete with antenna-mast structures and software	10	$5,000	$50,000
		Data transmission and Reception (IT equipment): Software for visualization, export and import of data, geo-visualization, reporting, control and management of meteorological stations	25	$1,500	$37,500
		Automatic workstations on the basis of a personal computer (PC) for automatic weather stations (PC, MFP, UPS - 1200 VA)	25	$1,500	$37,500
		2 aero logical radiosonde computing complex (receive telemetry, process and transmit) at Kokand and Tashkent	2	$170,000	$340,000
		Hydrogen generators (single pole electrolyzer consisting of 4 or 8 cells 580A-1100A)	2	$40,000	$80,000
		Aero logical radio probes and component parts (for one year - 750 pcs., Balloons – 750 pcs.)	750	$60	$45,000
		Creation of a specialized software for the integration of upper-air stations	1	$35,000	$35,000
		Acquisition and installation of two fixed Doppler-type meteoradar with C-band with the coverage up to 220 km radius	2	$300,000	$600,000
		Software: 4 existing and 1 expected meteorological radar to be integrated into the single network and establishment of integrated radar maps of the territory of the republic (data visualization, export and import, geo-visualization, meteoradar monitoring and control) Software updating of 4 existing meteoradars (Baron, Selex), new versions	1	$50,000	$50,000
		Water flow velocity meter for hydrological stations and gauges	60	$1,500	$90,000
		Water level meter for hydrological stations and gauges	30	$1,500	$45,000
		Profile recorder for the measurement of water flow velocity and water level in the rivers, channels and lakes	5	$16,000	$80,000
		Pneumatical boats with the motors	10	$2,500	$25,000

Budget Note	Account Category	Description	Quantity	Unit cost (USD)	Total
		Climatic test chamber for calibration of all type temperature sensors and air humidity sensors	1	$60,000	$60,000
		Vacuum chamber for calibration of all type barometers	1	$60,000	$60,000
		Calibration system for calibration of all type precipitation gauges	1	$30,000	$30,000
		Wind tunnel for calibration of tools for the airflow velocity measuring	1	$50,000	$50,000
		Special mobile metrological laboratory	1	$100,000	$100,000
A3	Contractual Services - Individual	Technical Specifications and Procurement Specialist (annual salary, 80%)	5	$18,500	**$74,000**
A4	Equipment and Furniture	Equipment and Professional services for establishing a Hydrometeorological data operation centre under Uzhydromet			**$170,000**
		IT equipment: Installation of the state-of-the-art server hardware for the data collection from the automated meteostation networks, for their storage, quality control and process analysis with communications and network equipment (multiplexor, switch, UPS, etc.)	2	$50,000	$100,000
		IT equipment: Long-term data storage device - Basic: hard discs 6 TB each – 12 pieces have to be installed; total storage capacity – 72 TB - Stand-by: hard discs 3 TB each – 12 pieces have to be installed; total storage capacity 36 TB - Uninterrupted supply unit – 3 KVA Online (capacity 2,700 W, input voltage 170-260 V) - PC for the data analysis and quality control - Software for the data archive, classification and backup	2	$25,000	$50,000
		Automatic workstations on the basis of personal computer (PC) for analysis and quality control of data: - PC with high-performance configuration, - Multi-function printer, - UPS - 1500VA, surge protector, etc.	10	$2,000	$20,000
A5	Communic & Audio Visual Equip	Equipment for integrating hydrometeorological data into a single database and developing combined products			**$70,000**
		Audio ad communication equipment: An integrated system of audio-video – conference communication at the republican and regional levels (for the Tashkent city and regional divisions on hydrometeorology), installation and commissioning	14	$5,000	$70,000
A6	Contractual Services -	Professional services for integrating hydrometeorological data into a single database and developing combined products, developing landslide risk model and access to satellite-based monitoring of landslides			**$475,000**

Budget Note	Account Category	Description	Quantity	Unit cost (USD)	Total
	Companies / Int-Serv	13 existing and 87 planned meteostations to be integrated into a single network that allows to track of meteorological parameters in real-time (visualization, export and import of data, geo-visualization, reporting, control and management of weather stations).	1	$100,000	$100,000
		Development of baseline data and automatic procedures to integrate radar, AWS and satellite data into best estimates of precipitation intensity (at timescales relevant for avalanche, landslide, flood and mudflow estimates) for the whole of Uzbekistan (spatial gridded products).	1	$150,000	$150,000
		Develop a landslide risk model for Eastern Uzbekistan based on geophysical and geotechnical characteristics, including subsurface water and rainfall. Developed in partnership with experts and data from state service for Geohazards Monitoring and other state technical institutions	1	$150,000	$150,000
		Purchase satellite datasets required to produce risk models and monitor ongoing land processes affecting landslide risk	5	$15,000	$75,000
A7	National consultant services:	Technical consultant and communication services for expanding drought early warning system from Amu Darya to Zaravshan and Syr Darya rivers, developing automatic procedures for calculating and using climate risks			**$625,500**
		Task 1 - Assessment of data availability for rivers, develop concept and feasibility for expansion of DEWS and integration into Uzhydromet and MES operations (10 experts at $75 per day for 200 days each)	2	$75	$156,375
		Task 2 - Adapt data ingesting and data processing techniques for additional rivers (5 experts at $50 per day for 400 days each)	2	$50	$104,250
		Task 3 - Develop web interface and mobile phone-based alerts/warnings for disseminating DEWS products linked to Uzhydromet website, procedures and alerts as well as MES risk assessment system (4 experts at $100 per day for 250 days each)	1	$100	$104,250
		Task 1 - Develop code and procedures for automatically calculating avalanche risk maps based on estimated snow accumulation and established relationships with avalanche extent. Establish procedures for automatic ingestion into the MES risk assessment system (5 experts at $50 per day for 400 days each)	2	$50	$104,250
		Task 2 - Develop code and procedures for automatically calculating mudflow risk maps based on precipitation observations and forecasts for 2-3 days. Establish procedures for automatic ingestion into MES risk assessment system (6 experts at $50 per day for 500 days each)	3	$50	$156,375
A8	National Project Manager	National Project Manager (SC-10 level, annual salary, 30% for Output 1)	6	$8,220	**$49,320**
A9	Printed materials:	Printed information and thematic materials			**$70,000**
		Develop, print and distribute materials explaining the DEWS system to Uzhydromet and MES regional centres in Zaravshan and the Syr Darya regions	2	$15,000	$30,000

Budget Note	Account Category	Description	Quantity	Unit cost (USD)	Total
		Develop, print and distribute materials explaining avalanche risk maps to Uzhydromet and MES regional centres	2	$10,000	$20,000
		Develop, print and distribute materials explaining mudflow risk maps to Uzhydromet and MES regional centres	2	$10,000	$20,000
A10	Travel expenses	Travel expenses for national experts and specialists to Project areas ($200 per trip for one expert, 10 trips per year)	60	$200	**$12,000**
A11	Technical experts	Technical experts			**$157,275**
		External translators (139 working days at $225 per day)	139	$225	$31,275
A12		Task Manager of Component 1 (SC-8 level)	6	$21,000	$126,000
A13	Capacity building	Capacity building of Uzhydromet specialists on KOSMO, UNIMAS, MITRA, etc.			**$250,000**
		Training of weather forecasters to work with new products of the KOSMO model (with a resolution of 13 km and 2 km) with the experience of international experts (50 experts of Uzhydromet to be trained)	1	$50,000	$50,000
		Organization of refresher courses and advanced training taking into account the technical re-equipment of facilities and the introduction of new methods for the analysis and prediction of meteorological and hydrological phenomena (300 experts of Uzhydromet to be trained)	1	$60,000	$60,000
		Organization of thematic courses and seminars with the involvement of foreign specialists (50 experts of Uzhydromet to be trained)	1	$50,000	$50,000
		Training of IT specialists of Uzhydromet for work with the computer centre and operation of the KOCMO model, the UNIMAS, MITRA information reception and transmission system, workstation software (weather forecaster, Agrometeorologist, GIS-METEO, etc.) (20 IT experts of Uzhydromet to be trained)	1	$50,000	$50,000
		Carrying out of training on places of installation AMC and the general user training, and also technical support (200 experts of Uzhydromet to be trained)	10	$4,000	$40,000
B1	Professional services	Professional services for a complex of software and hardware for an automated warning and information system, development of software for data ingestion from Uzhydromet to MES risk assessment system			**$2,050,000**
		Provision of comprehensive automation of technological processes of collecting, processing, storing and issuing information on threats or emergencies, as well as real-time monitoring of all procedures of alerting and informing the population about the evolving situation. Alerting and informing the governing bodies, bodies of the daily management of the state system of warning and actions in emergency situations of the Host Country, especially prepared forces and means intended and allocated (attracted) to eliminate emergency situations on the territory of the Host Country	1	$2,000,000	$2,000,000

Budget Note	Account Category	Description	Quantity	Unit cost (USD)	Total
		Develop software procedures to ingest 2-3 day and seasonal forecasts, as well as mudflow, flood and drought risks from Uzhydromet into risk model and ingest resulting risk maps to MES risk assessment system	1	$50,000	$50,000
B2	International Expert	International Expert for Climate Risk Assessment and guidance on the integration of information on different hazards and sources of vulnerability (both static and provided by operational systems) daily rate: $800, part-time for 40 days per year (annual expense $32,000), for 3 years	120	$800	**$100,080**
B3	Travel expenses The average cost of travels $381	Travel expenses			**$24,000**
		Travel expense for International consultant - Climate Risk Assessment specialist ($4000 per trip, 3 round trips)	3	$4,000	$12,000
		Travel expenses for national experts and specialists to Project areas ($200 per trip for one expert, 10 trips per year)	60	$200	$12,000
B4	International consultant	Consultant services for developing and introducing technical guidance, institutional and co-ordinational framework to provide oversight and guidance to the work of the national consultants. Coordination to ensure that protocols follow international best practice and best tailored to the Host Country situation. Lobbying for adoption by MES and other institutions. Daily rate: $800, part time for 25 days per year (annual expense $20,000), for 3 years	75	$800	**$60,000**
B5	National Project Manager	National Project Manager (SC-10 level, annual salary, 30% for Output 2)	6	$8,220	**$49,320**
B6	National technical experts	National consultants: To develop technical guidance, institutional and coordination frameworks on: i) data collection and archiving; ii) hazard mapping; iii) risk assessment; and iv) dissemination of information to RCMCs (3 experts at $50 per day for 200 days each, for 3 years)	1,8	$50	**$90,000**
B7	Equipment and Professional services	Equipment and Professional services for setting up information visualization system for 7 RCMCs			**$525,000**
		Video-wall of 4 LCD panels: Characteristics of each panel: Diagonal: 55" Resolution: 1920 * 1080 (Full HD) Brightness: 500 nits	7	$22,450	$157,150
		Video Signal Receiver / Transmitter Kit / Video Splitter: Set of HDMI signal receivers/transmitters via twisted pair cable up to 70 m, amplifier-distributor of video signal HDMI on two outputs, with support for 4K	7	$8,820	$61,740
		Graphic video controller: 4 video outputs, 4 video inputs. A set with scenario-based visualization management software	7	$22,950	$160,650

Budget Note	Account Category	Description	Quantity	Unit cost (USD)	Total
		Telecommunications cabinets: 26U 19 "Free Standing Cabinets Width: 600 mm Depth: 1000 mm	7	$780	$5,460
		Analytical software for visualization	1	$140,000	$140,000
B8	Professional services	Professional services for developing area-specific mobile and SMS based warnings for mudflows, avalanches, landslides, flooding risks Develop web interface and mobile phone-based alerts/warnings for disseminating area-specific alerts on mudflows, floods, landslides and avalanches based on information developed by the MES risk assessment system. This should be synchronized to the DEWS alerts developed through Activity 1.2, as well as build on the existing mobile-based system used by MES	1	$200,000	**$200,000**
C1	International Expert	International Expert for establishing a national framework for climate services (NFCS) at $600 per day, 120 days in total): - To conduct a baseline analysis based on the first consultation workshop outcomes - To develop an NFCS report and Action Plan for consultation and national-level endorsement - To advise on the setup of the Nation Climate Outlook Forum and a user dialogue platform to review and text disaster-related information products coming through the Project	120	$600	**$72,000**
C2	National Expert	National Expert for establishing a national framework for climate services (NFCS) (at $75 per day, 200 days in total) - To assist in conducting a baseline analysis based on the first consultation workshop outcomes - To assist in developing an NFCS report and Action Plan for consultation and national-level endorsement - To facilitate setting up and operations of the Nation Climate Outlook Forum and a user dialogue platform to review and text disaster-related information products coming through the Project	200	$75	**$15,000**
C3	National Project Manager	National Project Manager (SC-10 level, annual salary, 20% for Output 3)	6	$5,480	**$32,880**
C4	Engagement of end-users to the establishment of a national framework for climate services	Two Consultation workshops, to engage end-users in the design and testing of disaster-related climate services and products. The workshop will be organized in conjunction with the next activity on developing a sustainable business model for climate-related services and products, through extended participation of private sector stakeholder.	2	$5,000	**$10,000**
C5	Travel expenses	Travel expense for International consultant - 2 trips (at $3,500 per round trip)	2	$3,500	**$7,000**

Budget Note	Account Category	Description	Quantity	Unit cost (USD)	Total
C6	International Expert	International Expert for development of the business model (at $600 per day, 80 days in total): - Undertake a comprehensive analysis and discussion of long-term sustainable financing options for disaster-related services in Uzbekistan beyond the current state-funding model, in particular drawing on private investment and public-private partnership opportunities. - Based on the analysis and consultations, a sustainable value chain-based business model for disaster-related information will be developed and agreed upon with the key stakeholders, and the necessary legal and organizational changes will be outlined and planned on the national (adjustment of legislation) and the inter-institutional levels (Uzhydromet, Ministry of Emergency Situations, users of the services, private investors).	80	$600	**$48,000**
C7	National Expert	National Expert for development of the business model (at $150 per day, 60 days in total): - To assist in undertaking a comprehensive analysis and discussion of long-term sustainable financing options for disaster-related services in Uzbekistan beyond the current state-funding model. - To assist in developing a sustainable value chain-based business model for disaster-related information and agreeing with the key stakeholders.	60	$150	**$9,000**
C8	Communication Audio-visual Equipment	Communication Audio-visual Equipment for community-level early warning and risk information dissemination Outdoor communication boards for alerting and informing the population about threats or emergencies (targeted at 15 communities with high exposure and risks): - LED screens: Outdoor, P10, DIP. receiving card, screen size: 8,64 x 4,80 м - Video processor: Inputs: HDMI, DVI, 2x VGA, 2x CVBS, DP, SDI; Outputs: 4 Ethernet ports; Load capacity: 2.35 mil. pixels, maximum pixel frequency 165 MHz; Through output: DVI LOOP, SDI LOOP; Video monitor: VGA OUT, DVI OUT - Media player and controller software: Premium-class professional media player for Digital Signage systems and creation of distributed information zones, Support for streaming online video broadcasts; Video wall management; Support of touch screens; Built-in content editor; Video play with an alpha channel; Support of any resolution and screen configuration	29	$35,000	**$1,015,000**
C9	Printed material/ Communication products:	Printed information and thematic materials			**$40,000**
		Set of printed materials (booklets and infographics on climate hazards and associated early warning)	$5,000	6	$30,000
		Publications, brochures/case studies on gender-sensitive community-based MHEWS and MHRMP as well as on the gender dimension of the Project	$5,000	2	$10,000
C10		Thematic community workshops on climate hazards, gender and EW			**$83,000**

Budget Note	Account Category	Description	Quantity	Unit cost (USD)	Total
	Training and workshops	Community annual training workshops, for interpreting and using climate hazards and early warnings, by MES and Red Crescent society (50 participants per community, 15 communities, 750 community members annually, 6 years)	$700	90	$63,000
		2 pieces of training for relevant agencies on gender-sensitive socio-economic vulnerability analysis, with one or two sessions fully dedicated to gender aspects of the analysis (50 participants per training, 2 trainings in Tashkent)	$2,500	2	$5,000
		Focus group discussions on utility effectiveness of current early warning system (10 FG meetings at $500 per FG discussion annually, 3 years, 300 people in total participated at 30 FGMs)	$500	30	$15,000
C11	Technical experts	Technical experts			**$210,000**
		2 national experts for supporting community training workshops (2 experts at $50 per day, 7 days per workshop, 15 workshops: 105 days annually, 6 years)	$50	1,26	$63,000
		Translators (10 days at $225 per day, 4 visits of international experts)	$225	40	$9,000
		National consultant: Project Gender Advisor ($80 per day for 200 days annually, 6 years) scope of work: secure and oversee implementation of the Gender Action Plan; support gender mainstreaming in the Project Activities by reviewing/contributing to the technical TORs as adequate; participate in technical working groups; deliver training to national partners, experts and communities; support the implementation of the local grievance redress mechanism.	$80	1,2	$96,000
		National expert: M&E specialist ($50 per day, 40 days per year, 6 years); scope of work: development of M&E including impact surveys, installation of equipment and distribution of information materials/workshops. Identify problem areas and solutions.	$50	240	$12,000
		National consultant: conduct impact survey (2000 households, 45 mins per survey, 25 days per enumerator): data collection (10 people, 25 days per survey, 3 surveys)	$40	750	$30,000
C12	Task Manager and PR Specialist	Task Manager and PR Specialist			**$234,000**
		Task Manager for Component 3 (SC-8 level)	$21,000	6	$126,000
		PR and Outreach Specialist (including monitoring and communicating M&E activities), SC-6 level	$18,000	6	$108,000
C13	International Experts	International Experts for gender assessment and evaluations			**$90,500**
		International consultant: Gender specialist ($650 per day for 40 days) - Conduct training of key decision-makers on multi-hazard early warning systems and CRM, with special sessions to be dedicated to gender mainstreaming in climate and disaster risk management and EWS - Assist to develop and implement gender-sensitive awareness programme, guidance documents and education programs as well as training modules on gender-sensitive CRM/DRR, MHEWS, CBMHRM, etc.	$650	40	$26,000

Budget Note	Account Category	Description	Quantity	Unit cost (USD)	Total
		International consultant: for mid-term, terminal evaluation and impact evaluation (survey): $750 per day, 28 days per assignment for mid-term and terminal evaluations, 30 days for impact evaluation, 86 days in total)	$750	86	$64,500
C14	Travel	Travel to Project implementation and in-field supervision			**$49,500**
		Travel expense for regional MES (RCMC) and Uzhydromet staff to attend workshops in Tashkent. There will be 3 workshops organized throughout the Project lifetime. Total participants of 30 people, 2 from each region. (travel expenses at $150 per person for 30 people, 3 times)	$150	90	$13,500
		Travel expenses for national experts and specialists to Project areas ($200 per trip for one expert, 10 trips per year)	$200	60	$12,000
		Travel cost: M&E specialist travel costs for site visits and meetings $200 x 30 trips = $6000; International M&E consultant $6000 x 3 trips = $12,000; Travel costs for impact survey consultants $200 x 30 trips = $6000	$363.64	66	$24,000
PMU1	Project Management Unit (PMU)	Project Management Unit (PMU) - staff			**$246,380**
		National Project Manager (SC-10 level, annual salary, 20% for PMU)	$5,480	6	$32,880
		Technical Specifications and Procurement Specialist (SC-6 level, annual salary, 20%)	$3,700	5	$18,500
		Admin-Finance officer (SC-6 level)	$18,500	6	$111,000
		Driver (SC-2 level)	$14,000	6	$84,000
PMU2	Project Management Unit (PMU)	Project Management Unit (PMU) - local consultants			**$14,400**
		Cleaner (part-time, $200 per month, 6 years)	$2,400	6	$14,400
PMU3	Project Management Unit (PMU)	PMU Office expense, travel and Project Board meeting			**$37,000**
		Office rental and maintenance for national -level PMU staff	$10,000	1	$10,000
		Office Communication expense (landline, mobile) per year	$3,000	6	$18,000
		Regular meetings of Project Board, once a year	$1,500	6	$9,000
PMU4	Project Management Unit (PMU)	PMU Office equipment and furniture			**$20,000**
		Office and IT equipment: - 2 laptops, 8 desktop PCs, 1 MFU, 2 printers, 1 colour printer, 1 copy machine; 1 switch-hub, 1 projector, 1 screen, 1 camera, 8 UPS and surge protectors, etc. Furniture: - 8 working table sets, 16 chairs, 10 bookcases, 2 wardrobes, 1 conference table set for 30 people, etc.	$20,000	1	$20,000

Budget Note	Account Category	Description	Quantity	Unit cost (USD)	Total
PMU5	Project Management Unit (PMU)	PMU Office supplies			**$18,000**
		PMU Office suppliers (stationary etc.) for annual Project reporting	$3,000	6	$18,000
PMU6	Direct Project Costs (DPC)	Direct Project Costs: Direct Project Costs (DPCs) Services to projects - GOE for CO; UNDP support services related to HR, Procurement and Finance services to be provided by the Project through UNDP under GCF finance. The costs are estimated based on estimated actual or transactional-based costs. Respective Letter for Support Services will be signed average price $23,333	$140,000	1	**$140,000**
Total GCF					**$9,999,455**
UZHYDRO1	Equipment and Professional services	Equipment and Professional services for upgrading, installation and modernizing of AWS, upper-air stations and radar system			**$3,985,730**
		Site preparation and fencing for each AWS	$2,105	25	$52,632
		Office furniture and equipment for 25 AWS	$2,105	25	$52,632
		Overhaul of buildings and meteorological stations	$36,842	25	$921,053
		Maintenance, repair and personnel cost of 25 AWS	$37,625	25	$940,637
		Overhaul of premises of upper air stations	$47,368	2	$94,737
		Maintenance, repair and personnel cost of 2 upper-air stations	$73,083	6	$438,500
		Maintenance, repair and personnel cost for modernizing and technical re-equip hydro-observation system	$138,416	6	$830,494
		Installation, operation/personnel and repair cost for meteolocators	$55,603	6	$333,618
		Calibration of equipment and instruments with modern standards	$51,368	6	$308,210
		Electricity cost	$519	6	$3,112
		Internet and communication cost	$1,684	6	$10,105
UZHYDRO2	Co-financing	Co-financing management costs of Uzhydromet			**$209,775**
		National technical experts	$34,963	6	$209,775
Total UZHYDROMET					**$4,195,505**
MES1	Equipment and Professional services	Equipment and Professional services for setting up information visualization system for RCMCs			**$21,329,656**
		Set of Information visualization system for RCMCs	$1,290,000	7	$9,030,000
		Capital expenditure for RCMCs	$746,977	15	$11,204,656
		Maintenance and repair cost of RCMC visual systems	$73,000	15	$1,095,000
MES2		Equipment and Professional services for setting up communication audio-visual equipment			**$3,792,500**
		Communication boards and software	$35,000	102	$3,570,000

Budget Note	Account Category	Description	Quantity	Unit cost (USD)	Total
	Equipment and Professional services	Maintenance and repair cost of information boards	$2,500	89	$222,500
MES3	Co-financing	Co-financing management costs of MES			**$1,322,219**
		National technical experts	$220,370	6	$1,322,219
Total MINISTRY OF EMERGENCY SITUATIOINS, MES					**$26,444,375**

X. LEGAL CONTEXT

Option a. Where the country has signed the Standard Basic Assistance Agreement (SBAA)

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of the Republic of Uzbekistan and UNDP, signed on 10 June 1993. All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner."

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

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

XI. RISK MANAGEMENT

Option a. Implementing Partner is a Government Entity (NIM)

1. Consistent with Article III of the SBAA *[or the Supplemental Provisions to the Project Document]*, the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:
   a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
   b) assume all risks and liabilities related to the Implementing Partner's security and the full implementation of the security plan.

2. UNDP reserves the right to verify whether such a plan is in place and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner's obligations under this Project Document.

   The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml.

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

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

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

4. a) In the performance of the activities under this Project Document, the Implementing Partner shall (with respect to its own activities), and shall require from its sub-parties referred to in paragraph 4 (with respect to their activities) that they, have minimum standards and procedures in place, or a plan to develop and/or improve such standards and procedures in order to be able to take effective preventive and investigative action. These should include: policies on sexual harassment and sexual exploitation and abuse; policies on whistleblowing/protection against retaliation; and complaints, disciplinary and investigative mechanisms. In line with this, the Implementing Partner will and will require that such sub-parties will take all appropriate measures to:

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

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

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

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

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

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

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

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

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

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

9. The requirements of the following documents, then in force at the time of signature of the Project Document, apply to the Implementing Partner: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. The Implementing Partner agrees to the requirements of

the above documents, which are an integral part of this Project Document and are available online at www.undp.org.

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

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

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

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

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

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

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

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

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

XII. MANDATORY ANNEXES

Annex A: GCF Funding Activity Agreement and Notice of Effectiveness

Annex B: GCF Board-approved Funding Proposal

Annex C: Letters of co-financing (commitment letters from the project design stage)

Annex D: Timetable of project implementation

Annex E: Procurement plan

Annex F: Terms of References for Project Board and Project Team

Annex G: UNDP Social and Environmental and Safeguards screening procedure (SESP) and Environmental and Social Management Plan or Framework (ESMP or ESMF), as relevant

Annex H: Stakeholder Engagement Plan

Annex I: Gender Analysis and Action Plan

Annex J: UNDP Risk Log

Annex K: Letter of Agreement with MES

Annex L: Partner Capacity Assessment

Annex M: UNDP Project Quality Assurance Report (to be completed in UNDP online corporate planning system, does not need to be attached as a separate document)

Annex N: Monitoring and evaluation plans

Annex A: GCF Funding Activity Agreement and Notice of Effectiveness

Added separately.

Annex B: GCF Board-approved Funding Proposal

Decisions of the Board – twenty-eighth meeting of the Board, 16 – 19 March 2021
https://www.greenclimate.fund/sites/default/files/document/gcf-b28-21.pdf

GCF/B.28/02/Add.14: Consideration of funding proposals - Addendum XIV: Funding proposal package for SAP022
https://www.greenclimate.fund/document/gcf-b28-02-add14

Approved funding proposal - SAP022: Enhancing Multi-Hazard Early Warning System to increase resilience of Uzbekistan communities to climate change-induced hazards (06 April 2021)
https://www.greenclimate.fund/document/enhancing-multi-hazard-early-warning-system-increase-resilience-uzbekistan-communities

Annex C: Letters of co-financing

1) Center of Hydrometeorological Services under the Ministry of Emergency Situations of the Republic of Uzbekistan (Uzhydromet) – 4,195,505 USD (project co-financing) + 7,408,185 USD (14 years O&M costs)

2) Ministry of Emergency Situations of the Republic of Uzbekistan – 26,444,374 USD (project co-financing) + 5,981,500 USD (14 years O&M costs)

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United Nations Development Programme (UNDP)
Resident Representative in the Republic of Uzbekistan

Dear Ms. Dimovska,

Center of Hydrometeorological Service of the Republic of Uzbekistan (Uzhydromet) fully supports the proposed GCF project Enhancing Multi-Hazard Early Warning System to increase resilience of Uzbekistan communities to climate change induced hazards.
Herewith, we confirm our commitment to participate in the implementation of the UNDP project titled Enhancing Multi-Hazard Early Warning System to increase resilience of Uzbekistan communities to climate change induced hazards submitted for Green Climate Fund.

Our co-financing to the project will come to US$ 4,195,505 that includes in-kind (US$ 2,979,716) and grant (US$ 1,215,789) resources to cover project investment costs, Operations, and Maintenance (O&M) costs during the 6-year implementation period of the project (2021-2026).
Our contribution will cover personnel salaries; costs of maintenance, verification and repair of the hydrometeorological equipment during the project implementation; preparation of sites for equipment installation and renovation and overhaul of buildings and premises; purchase of work-wear, furniture and computers and office equipment; communication and electricity costs.

In addition to the above, Uzhydromet is committed to cover US$ 7,408,185 O&M costs of the hydrometeorological equipment and systems for 14 years after the project completion (in line with the O&M plan).
Detailed description of the Uzhydromet co-financing costs and O&M commitment is provided in Annex 1 to this letter.
Using the opportunity let me once again thank you for your continuous support and look forward to continuing our fruitful cooperation.

Best regards,

Name:Dr. Bakhriddin Nishonov
Title: First Deputy Director General of Uzhydromet
UNFCCC National Focal Point in the Republic of Uzbekistan

Норасмий таржима

Ўзбекистон Республикаси Гидрометеорология хизмати маркази

Сана: ____ декабрь 2020 й.

Матильда Димовска, БМТТД, Ўзбекистон.

Мавзу: Яшил иқлим жамғармасининг (ЯИЖ) «Ўзбекистон аҳолисини иқлим ўзгариши натижасида юзага келган хавфли табиий ҳодисаларга баркарорлигини кучайтириш учун олдиндан хабардор қилишнинг комплекс тизимини такомиллаштириш» лойиҳасини ҳамкорликда молиялаштириш бўйича келишув.

Ҳурматли Димовска хоним!

Ўзбекистон Республикаси Гидрометеорология хизмати маркази (Ўзгидромет) ЯИЖ томонидан тақдим қилинган «Ўзбекистон аҳолисини иқлим ўзгариши натижасида юзага келган хавфли табиий ҳодисаларга барқарорлигини кучайтириш учун олдиндан хабардор қилишнинг комплекс тизимини такомиллаштириш» лойиҳасини тўла қўллаб-қувватлайди.

Шу муносабат билан Яшил иқлим жамғармасига тақдим этилган «Ўзбекистон аҳолисини иқлим ўзгариши натижасида юзага келган хавфли табиий ҳодисаларга барқарорлигини кучайтириш учун олдиндан хабардор қилишнинг комплекс тизимини такомиллаштириш» БМТТД лойиҳасини амалга оширишда иштирок этиш мажбуриятимизни тасдиқлаймиз.

Бизнинг лойиҳани биргаликда молиялаштиришдаги улушимиз 4 195 505 АҚШ долларини ташкил қилади, жумладан лойиҳани 6 йил давомида (2021-2026 йй.) амалга ошириш борасида лойиҳанинг инвестицион харажатларини ҳамда фойдаланиш ва техник хизмат кўрсатиш (ЭиТО) харажатларини қоплаш учун пул шаклида 2 979 716 АҚШ доллари ва грантлар учун 1 215 789 АҚШ доллар.

Бизнинг улушимиз хизматчилар иш ҳақи; лойиҳани амалга оширишда гидрометеорологик ускуналарга хизмат кўрсатиш, уларни таққослаш ва таъмирлаш харажатлари; ускуналарни ўрнатиш учун майдончалар тайёрлаш, бино ва иншоотларни таъмирлаш ва жорий таъмирлаш; коммунал махсус кийимлар, мебель, компьютер ва оргтехникалар сотиб олиш; алоқа ва электр энергия учун харажатларни қоплайди.

Юқорида қайд қилинганларга қўшимча равишда, Ўзгидромет гидрометеорологик ускуналарни ва тизимлар бўйича фойдаланиш ва техник хизмат кўрсатиш (ЭиТО) учун 7 408 185 АҚШ доллари миқдоридаги харажатларни лойиҳа якунлангандан сўнг 14 йил давомида қоплаш мажбуриятини олади (ЭиТО режасига мувофиқ).

Ўзгидрометнинг ҳамкорликда молиялаштириш харажатлари ва ЭиТО бўйича мажбуриятларининг тўлиқ баёни ушбу хатнинг 1-иловасида келтирилган.

Тайёрлаган:
Исми: Доктор. Бахриддин Нишонов
Лавозими: Ўзгидромет бош директорнинг биринчи ўринбосари
UNFCCCнинг Ўзбекистон Республикасидаги миллий координатори.

O'ZBEKISTON RESPUBLIKASI FAVQULODDA VAZIYATLAR VAZIRLIGI

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2021-yil "19" 01 4/7/16-2-son

To the Permanent Representative
of UNDP in Uzbekistan
Ms. M. Dimovska,

Dear Mrs. Dimovska,

Dear Mrs. Dimovska,The Ministry of Emergency Situations of the Republic of Uzbekistan fully supports the proposed GCF project «Enhancing Multi-Hazard Early Warning System to increase resilience of Uzbekistan communities to climate change induced hazards».

Herewith, we confirm our commitment to participate in the implementation of the UNDP project titled «Enhancing Multi-Hazard Early Warning System to increase resilience of Uzbekistan communities to climate change induced hazards» submitted for Green Climate Fund.

Our co-financing to the project will come to US$ 26,444,375 that includes in-kind (US$ 1,317,500) and grant (US$ 25,126,875) resources to cover project investment costs and Operations and Maintenance (O&M) costs during the 6-year implementation period of the project (2021-2026).

Our contribution will cover costs for equipment of 7 RCMC (excluding GCF funds), covered by project; costs for equipment, including information visualization systems for CIMC (excluding GCF project funds); costs for acquisition and installation of additional (except for those 29, funded by GCF) info boards, connected to 7 RCMC, covered by GCF project; costs for acquisition and installation of info boards, connected to RCMC, not covered by GCF project; costs for technical service and maintenance of equipment.

In addition to the above, the Ministry is committed to cover US$ 5,981,500 O&M costs of the RCMC and visualization equipment and systems for 14 years after the project completion (in line with the O&M plan).

Detailed description of the Ministry co-financing costs and O&M commitment is provided in Annex 1 to this letter.

Deputy Minister **A.Latifjonov**

Перечень затрат МЧС на приобретение, содержание и техническое обслуживание оборудования, приобретенного в рамках проекта

	№ /№ п/п	Виды затрат (расходов)	1 год			2-5 годы			6 год			7-15 годы			16-20 годы		
			Единиц	$ за ед.	$ всего	Единиц	$ за ед.	$ всего	Единиц	$ за ед.	$ всего	Единиц	$ за ед.	$ всего	Единиц	$ за ед.	$ всего
КАПИТАЛЬНЫЕ ЗАТРАТЫ	Приобретение и установка оборудование (системы оповещения (не считая информационных табло и непосредственно связанных с ними расходов)	Затраты МЧС на оборудование для 7 ЦУКС (кроме оплачиваемых ЭКФ), охваченных проектом ЭКФ	7	120 000	840 000	7	850 000	5 950 000,0	7	320 000	2 240 000	0	0	0	0	0	0
		Затраты МЧС на оборудование, включая системы визуализации информации, для ЦУКС, не охваченных проектом ЭКФ	15	289 125	4 336 875	7	850 000	5 950 000,0	7	320 000	2 240 000	0	0	0	0	0	0
	Приобретение и установка информационных табло	Затраты МЧС на приобретение и установку дополнительных (кроме 29, оплачиваемых ЭКФ) информационных табло, подключенных к 7 ЦУКС, охваченных проектом ЭКФ	0	0	0	14	35 000	490 000,0	21	35 000	735 000	0	0	0	0	0	0
		Затраты МЧС на приобретение и установку информационных табло, подключенных к ЦУКС, не охваченных проектом ЭКФ	10	35 000	350 000	36	35 000	1 260 000,0	21	35 000	735 000	0	0	0	0	0	0
ОПЕРАЦИОННЫЕ РАСХОДЫ	Обслуживание и ремонт (не считая информационных табло)	Затраты МЧС на техническое обслуживание и ремонт оборудования в 7 ЦУКС, охваченных проектом ЭКФ	0	0	0	7	55 000	385 000,0	7	18 000	126 000	7	270 000	1 890 000	7	72 000	504 000
		Затраты МЧС на техническое обслуживание и ремонт оборудования в ЦУКС, не охваченных проектом ЭКФ	0	0	0	8	55 000	440 000,0	8	18 000	144 000	8	270 000	2 160 000	8	72 000	576 000
	Обслуживание и ремонт информационных табло	Затраты МЧС на техническое обслуживание и ремонт информационных табло (где оплачиваемых ЭКФ так и дополнительных), подключенных к 7 ЦУКС, охваченных проектом ЭКФ	0	0	0	43	2 000	86 000,0	43	500	21 500	64	4 500	288 000	64	2 000	128 000
		Затраты МЧС на техническое обслуживание и ремонт информационных табло, подключенных к ЦУКС, не охваченных проектом ЭКФ	0	0	0	46	2 000	92 000,0	46	500	23 000	67	4 500	301 500	67	2 000	134 000
	Другие расходы МЧС, которые можно считать софинансированием проекта ЭКФ (Какие именно, где, на что? Если нужно обсудить - давайте обсудим)																
		Итого:	32,0	444 126,0	5 526 875,0	168,0	1 884 000,0	14 653 000,0	160,0	747 000,0	6 264 500,0	146,0	549 000,0	4 639 500,0	146	148 000	1 342 000

Annex D: Timetable of project implementation

Please see the next page.

Year 1				Year 2				Year 3				Year 4				Year 5				Year 6				Year 7	
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Output 1: Upgraded hydro-meteorological observation network, modelling and forecasting capacities																									
Activity 1.1.: Upgrading and modernization of the meteorological and hydrological Observation System																									
			Technical specifications for the procurement of hydrometeorological observation equipment				Report on the status of procurement of observation equipment				13 automatic weather stations (AWS) partially installed, calibrated and operational; 2 upper-air stations partially modernized; 1 online radar system partially established				25 automatic weather stations (AWS) installed, calibrated and operational; 4 upper-air stations modernized; 2 online radar system established				O&M by Uzhydromet				O&M by Uzhydromet			

Year 1				Year 2				Year 3				Year 4				Year 5				Year 6				Year 7	
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Output 1: Upgraded hydro-meteorological observation network, modelling and forecasting capacities																									
Activity 1.2: Upgrading Uzhydromet's capacity to store, process and develop hazard products, as well as to communicate hydrometeorological data to regional division																									
		TORs/technical specifications prepared					Installation of the state-of-the-art server hardware and storage device for data collection from the automated meteostation networks; assessment of data availability for expanded DRMS				The operations centre, ICT servers and networking equipment established to integrate data streams and automate processes and analyses	Hazard and risk maps available for 2 districts			Hazard and risk maps available for 7 districts										
Output 1: Upgraded hydro-meteorological observation network, modelling and forecasting capacities																									

Year 1				Year 2				Year 3				Year 4				Year 5				Year 6				Year 7	
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Activity 1.3: Retraining and advanced training of Uzhydromet staff on monitoring and forecasting technologies and procedures																									
			Baseline institutional capacity assessment of Uzhydromet completed																						
				Training programme/plan developed																					
							Annual report on capacity building/training for Uzhydromet staff (forecasters, IT specialists, technical staff																		
											50% targeted staff trained; institutional capacity assessment score for Uzhydromet enhanced by 20 % against baseline														
															Annual report on capacity building/training for Uzhydromet staff (forecasters, IT specialists, technical staff)										
																							100% targeted staff trained; institutional capacity assessment for Uzhydromet enhanced by 50 % against baseline			

Year 1				Year 2				Year 3				Year 4				Year 5				Year 6				Year 7	
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Output 2: A functional Multi-Hazard Early Warning System is established based on innovative impact modelling, risk analyses, effective regional communication and community awareness																									
Activity 2.1: Developing and installing a modernised and efficient system for assessing climate risks based on dynamic information on both hazards and vulnerabilities, including socio-economic risk models for decision making and prioritization of resilience-building long-term/future investments																									
							Detailed technical specifications for the MHEWS software and hardware	Specifications for the socio-economic risk and vulnerability model			Software and hardware for an automated warning and info system procured and installed	Software and SOPs to automatically ingest observation data and forecasts from Uzhydromet into the MHEWS to be combined with available vulnerability data	Socio-economic risk and vulnerability model; mudflow modelling; landslide risk modelling; Drought EWS for the Syr Darya and Zeravshan rivers		O&M by MES				O&M by MES; Climate risk and vulnerability assessment completed				Impact-based MHEWS is fully operational; warning delivery time by MES/RCMCs to population reduced by 50%; O&M by MES		

Year 1				Year 2				Year 3				Year 4				Year 5				Year 6				Year 7	
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Output 2: A functional Multi-Hazard Early Warning System is established based on innovative impact modelling, risk analyses, effective regional communication and community awareness																									
Activity 2.2: Developing and introducing technical guidance, institutional and coordination frameworks to increase the efficiency of data collection and archiving; hazard mapping and modelling; risk assessment; and dissemination of information to RCMCs																									
							Institutional survey to assess the level of coordination within MHEWS designed			Technical guidance to increase the efficiency of data collection and archiving; hazard mapping and modelling; risk assessment; impact-based warning and forecast-based actions; warning dissemination	National to regional EWS protocol and communication protocols		2 coordination frameworks or SOPs in place among Uzhydromet, MES and RCMCs on data exchange, risk analysis, and warnings dissemination; 50% of surveyed institutional users report an adequate level of coordination within MHEWS					4 coordination frameworks or SOPs in place among Uzhydromet, MES and RCMCs on data collection, archive, risk analysis, and warnings dissemination; 80% of surveyed institutional users report an the adequate level of coordination within MHEWS.							

	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6				Year 7	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Output 2: A functional Multi-Hazard Early Warning System is established based on innovative impact modelling, risk analyses, effective regional communication and community awareness																										
Activity 2.3: Designing and implementing a system for information dissemination to RCMCs and area-specific mobile alerts including an information visualization system for RCMCs with software																										
					Detailed technical specifications for the RCMCs data visualization system (video walls, telecommunication systems, servers and ICT storage)				2 RCMCs equipped with visualization systems and have access to updated risk maps, area-specific hazard alerts and warning information				O&M by MES				Improved area-specific mobile and SMS based warnings for mudflows, avalanches, landslides and flooding				7 RCMCs equipped with visualization systems and have access to updated risk maps, area-specific hazard alerts and warning information				O&M by MES		

	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6				Year 7	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Output 3: Strengthened climate services and disaster communication to end-users																										
Activity 3.1: Establishing National Framework for Climate Services for Uzbekistan																										
				Consultation workshop and baseline analysis for NCFS				NFCS report and Action Plan				National Climate Outlook Forum (NCOF) and a user-dialogue platform set up through NFCS the consultation process to review the disaster-related information products					Operationalization of an NCOF with a regular user dialogue mechanism that brings end-users and co-producers of climate and hydrometeorological information in the design and production processes									

Year 1				Year 2				Year 3				Year 4				Year 5				Year 6				Year 7	
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Output 3: Strengthened climate services and disaster communication to end-users																									
Activity 3.2: Designing a sustainable business model for disaster-related information and services																									
											Feasibility analysis for a sustainable value chain-based business model for disaster-related information and services completed				At least 3 revenue generation options based on disaster-related information/services endorsed by users/stakeholders from climate-sensitive sectors									

	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6				Year 7	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Output 3: Strengthened climate services and disaster communication to end-users																										
Activity 3.3: Strengthening disaster warming dissemination and communication with end-users																										
								Technical specification for the communication boards/materials				12 communities in 15 targeted areas with improved access to early warning alert through information board, mahalla training and info-products/meetings				50% of surveyed beneficiaries in targeted communities report that the warnings and climate advisories are clear, accessible and easy to apply for enhanced preparedness				20 communities in 15 targeted areas with improved access to early warning alert through information board, mahalla training and info-products/meetings				75% surveyed beneficiaries in targeted communities report that the warnings and climate advisories of are clear, accessible and easy to apply for enhanced preparedness		
									Community survey designed				Region-specific broadcasting of early warnings developed, with the use of modern communication channels such as social media and electronic messenger subscription groups										

Year 1				Year 2				Year 3				Year 4				Year 5				Year 6				Year 7	
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Project Monitoring																									
	Inception Report			APR				APR				APR			Interim Evaluation	APR				APR				Completion Report	Final Evaluation

APR = Annual Performance Report

**In addition to these monitoring requirements, the Funded Activity is also subject to financial reporting per the AMA/FAA, such as Unaudited/Audited Financial Statements, Financial information reports, and other reports as defined in the FAA.*

*** For those that do not have component, sub-outputs can be used.*

Annex E: Procurement plan

Please see the next page

General

1. **Project information**: ***Enhancing Multi-Hazard Early Warning System to increase resilience of Uzbekistan communities to climate change-induced hazards, Uzbekistan***
2. **Version of the Plan**: Version 1.0 dated _____
3. **Approval Date of the procurement Plan**:
4. **Date of General Procurement Notice**:
5. **Period covered by this procurement plan**: 2021-2026
6. **Other Arrangements**: UNDP, as the Accredited Entity, has put in place a Programme and Operations Policies and Procedures (POPP)[27] which has a 'Contracts and Procurement section. The policies outline formal procurement standards and guidelines across each phase of the procurement process, and they apply to all procurements in UNDP. Procurement of services and goods will be done cost-effectively and reliably and by applying the following principles: **Best Value for Money**, which consists of the selection of the offer that best meets the end-users needs and that presents the best return on investment; **Fairness, Integrity and Transparency,** which ensures that competitive processes are fair, open, and rules-based. All potential vendors will be treated equally, and the process will feature clear evaluation criteria, unambiguous solicitation instructions, realistic requirements, and rules and procedures that are easy to understand; **Effective International Competition**, understood as giving all potential vendors timely and adequate information on UNDP requirements, as well as equal opportunity to participate in procurement actions; and In the best interest of UNDP, which means that any business transactions must conform to the mandates and principles of UNDP and the United Nations. As outlined in the Procurement Plan, procurement of goods and services will be mainly carried out by UNDP and the UNDP procurement procedures will be applied (POPP).

II. Goods, Works and non-consulting services.

1. **Prior Review Threshold**: Procurement Decisions subject to Prior Review by the AE/Fund

	Procurement Method	The threshold for use of the method	Prior Review Threshold	Comment
1.	Micro-purchasing	Below 10,000 USD	Not required	Good, services or simple works; Canvassing (by phone, online, or shopping etc.); limited competition (national/international)
2.	Request for quotation (RFQ)	10,000 – 150, 000 USD	50,000 USD and above	Good, services or simple works; Written request for quotation; limited competition (national/international)
3.	Invitation to bid (ITB)	150,000 USD and above	50,000 USD and above	Goods or works; Advertisement in international media for a minimum of 2 weeks; Open international competition
4.	Request for proposal (RFP)	150,000 USD and above	50,000 USD and above	Services; Advertisement in international media for a minimum of 2 weeks; Open international competition

2. **Prequalification** (for complex Civil Works)

An invitation to bid may be used in procuring construction works or services valued at US $150,000 or more. The responsible business units at UNDP may initiate an invitation to bid through a process of prequalifying prospective bidders, before launching the invitation. Prequalification is recommended when the market is so wide that there might be too many prospective bidders, and UNDP would prefer to award the contract only to those who fully meet or exceed required qualifications. This is highly recommended for procuring construction works, and other complex procurements with high risks.

[27] See here: https://info.undp.org/global/popp/cap/Pages/Introduction.aspx

3. Procurement Packages with Methods and Time Schedule

1	2	3	4	5	6	7	8	9	10	11	12	13
Ref. No.	Contract (Description)	Source of Funds	Planned vs Actual	Estimated Cost in US$	Procurement Method	Pre qualification (yes/no)	Domestic Preference (yes/no)	Review by AE/Fund (Prior / Post)	Date of issuance of doc's	Bid-Opening Date	Date of contract /order signature	Comments
1	Installation of 25 Automated meteorological station (AWS)	GCF grants	**Planned**	500,000	RFP QCBS	yes	No	Prior, regional-level	2022 Q2	2022 Q2	2022 Q3	
			Actual									
2	Sensors, power and IT equipment for 25 AWS	GCF grants	**Planned**	301,300	RFQ QCBS	No	No	Prior, regional-level	2022 Q2	2022 Q2	2022 Q3	
			Actual									
3	Modernising upper-air stations	GCF grants	**Planned**	500,000	ITB QCBS	No	No	Prior, regional-level	2023 Q1	2023 Q1	2023 Q2	Aerological radiosonde computing complex; upper-air radar computing complex
			Actual									
4	Establishing online Radar systems	GCF grants	**Planned**	650,000	ITB QCBS	No	No	Prior, regional-level	2023 Q1	2023 Q1	2023 Q2	Acquisition and installation of one fixed Doppler-type meteo-radar with C-band with the coverage up to 220 km radius, to be integrated into a single radar network
			Actual									
5	Upgrading technical requirement of hydrological	GCF grants	**Planned**	240,000	RFQ QCBS	No	No	Prior, regional-level	2022 Q2	2022 Q2	2022 Q3	Water flow velocity meter, water level meter for

1	2	3	4	5	6	7	8	9	10	11	12	13
Ref. No.	Contract (Description)	Source of Funds	Planned vs Actual	Estimated Cost in US$	Procurement Method	Pre qualification (yes/no)	Domestic Preference (yes/no)	Review by AE/Fund (Prior / Post)	Date of issuance of doc's	Bid-Opening Date	Date of contract /order signature	Comments
	observation systems											hydrological stations
			Actual									
6	Upgrading of Metrological Service (MS) with benchmarks for instrumentation calibration	GCF grants	**Planned**	300,000	ITB QCBS	No	No	Prior, regional-level	2022 Q2	2022 Q2	2022 Q3	Climatic test chamber, vacuum chamber, wind tunnel for instrument calibration, and one special mobile metrological laboratory
			Actual									
7	Information Technology Equipment for the setup of an operation centre under Uzhydromet Office	GCF grants	**Planned**	170,000	RFQ QCBS	No	No	Prior, local-CAP committe e	2023 Q1	2023 Q1	2023 Q1	IT equipment: hardware and data storage devices for automated working stations
			Actual									
8	Integrating hydrometeorologic al data into a single database and the development of combined products	GCF grants	**Planned**	250,000	RFQ QCBS	No	No	Prior, regional-level	2023 Q1	2023 Q1	2023 Q2	Real-time monitoring equipment and baseline data and automatic procedures
			Actual									
9	Integrating hydrometeorologic al data into a single database and the development of	GCF grants	**Planned**	70,000	RFQ QCBS	No	No	Prior, local-CAP committe e	2024 Q1	2024 Q1	2024 Q1	Communicatio n & Audiovisual Equipment: 14 sets installed at republican and regional levels

1	2	3	4	5	6	7	8	9	10	11	12	13
Ref. No.	Contract (Description)	Source of Funds	Planned vs Actual	Estimated Cost in US$	Procurement Method	Pre qualification (yes/no)	Domestic Preference (yes/no)	Review by AE/Fund (Prior / Post)	Date of issuance of doc's	Bid-Opening Date	Date of contract /order signature	Comments
	combined products											(for Tashkent city and regional divisions on hydrometeorology)
			Actual									
10	Develop landslide risk model for extreme precipitation and access to satellite-based monitoring of landslides	GCF grants	**Planned**	150,000	RFP QCBS	No	no	Prior, local-CAP committee	2024 Q1	2024 Q1	2024 Q1	
			Actual									
11	Purchase satellite datasets required to produce risk models and monitor ongoing land processes affecting landslide risk	GCF grants	**Planned**	75,000	RFQ QCBS	No	no	Prior, local-CAP committee	2024 Q1	2024 Q1	2024 Q2	
			Actual									
12	A complex of software and hardware for an automated warning and information system	GCF grants	**Planned**	2,000,000	RFP QCBS	No	No	Prior, HQ-level	2024 Q1	2024 Q1	2024 Q2	
			Actual									
13	Information visualization system for 7 RCMCs and	GCF grants	**Planned**	385,000	RFP QCBS	No	No	Prior, regional-level	2023 Q1	2023 Q1	2023 Q2	
			Actual									
14	Analytical software for visualization for RCMCs	GCF grants	**Planned**	140,000	RFQ QCBS	No	No	Prior, local-CAP	2022 Q2	2022 Q2	2022 Q3	

1	2	3	4	5	6	7	8	9	10	11	12	13
Ref. No.	Contract (Description)	Source of Funds	Planned vs Actual	Estimated Cost in US$	Procurement Method	Pre qualification (yes/no)	Domestic Preference (yes/no)	Review by AE/Fund (Prior / Post)	Date of issuance of doc's	Bid-Opening Date	Date of contract /order signature	Comments
								committe e				
			Actual									
15	Professional services for developing area-specific mobile and SMS based warning alerts	GCF grants	**Planned**	200,000	RFP QCBS	No	Yes	Prior, local-CAP committe e	2024 Q1	2024 Q1	2024 Q2	
			Actual									
16	Installation of 29 Outdoor communication boards at 7 RCMCs	GCF grants	**Planned**	1,015,000	ITB LCS	yes	No	Prior, HQ-level	2024 Q1	2024 Q1	2024 Q2	
			Actual									
17	Uzhydromet staff training workshops	GCF grants	**Planned**	250,000	RFQ LCS	no	No	Prior, regional level	2023 Q1	2023 Q1	2023 Q1	Topics: monitoring and forecasting technologies
			Actual									
18	Community annual training workshops	GCF grants	**Planned**	63,000	RFQ LCS	no	No	Prior, local-CAP committe e	2022 Q1	2022 Q1	2022 Q1	Topics: interpreting and using climate hazards and early warnings (by MES and Red Crescent Society)
			Actual									
19	Community annual training workshops	GCF grants	**Planned**	5,000	RFQ LCS	no	No	Prior, local-CAP committe e	2022 Q1	2022 Q1	2022 Q1	Topics: gender-sensitive social-economic vulnerability analysis
			Actual									

1	2	3	4	5	6	7	8	9	10	11	12	13
Ref. No.	Contract (Description)	Source of Funds	Planned vs Actual	Estimated Cost in US$	Procurement Method	Pre qualification (yes/no)	Domestic Preference (yes/no)	Review by AE/Fund (Prior / Post)	Date of issuance of doc's	Bid-Opening Date	Date of contract /order signature	Comments
20	End-user consultation Workshops	GCF grants	**Planned**	10,000	RFQ LCS	no	No	No	2022 Q4	2022 Q4	2022 Q4	Topics: co-design and co-testing of disaster-related climate services and products
			Actual									
21	End-user consultation Workshops	GCF grants	**Planned**	15,000	RFQ LCS	no	No	No	2022 Q4	2022 Q4	2022 Q4	Topics: focus group discussions on utility effectiveness of current early warning system
			Actual									
22	Office rental and maintenance	GCF grants	**Planned**	10,000	RFQ LCS	No	No	no	2022 Q1	2022 Q1	2022 Q2	
			Actual									
23	IT equipment	GCF grants	**Planned**	20,000	RFQ LCS	No	No	no	2022 Q1	2022 Q1	2022 Q1	
			Actual									
24	Office Communication expense (landline, mobile) per year	GCF grants	**Planned**	18,000	MPO LCS	No	No	no	2022 Q1	2022 Q1	2022 Q1	
			Actual									
25	PMU Office suppliers (stationary etc)	GCF grants	**Planned**	18,000	MPO LCS	No	No	no	2022 Q1	2022 Q1	2022 Q1	
			Actual									
26	Regular meetings of Project Board, once a year	GCF grants	**Planned**	9,000	MPO LCS	No	No	no	2022 Q3	2022 Q3	2022 Q3	
			Actual									

1	2	3	4	5	6	7	8	9	10	11	12	13
Ref. No.	Contract (Description)	Source of Funds	Planned vs Actual	Estimated Cost in US$	Procurement Method	Pre qualification (yes/no)	Domestic Preference (yes/no)	Review by AE/Fund (Prior / Post)	Date of issuance of doc's	Bid-Opening Date	Date of contract /order signature	Comments
Total (Goods, Works and non-consulting services)				**7,364,300**								

III. Selection of Consultants

1. **Prior Review Threshold**: Selection decisions subject to Prior Review by AE/Fund:

	Selection Method	Prior Review Threshold	Comment
1.	Competitive procurement process	Any contract or series of contracts including amendments to be awarded to a vendor in a calendar year that in aggregate has a cumulative value of: Above US $50,000 (above the US $100,000 for Individual Contracts) and up to the standard delegated procurement authority	Direct review by the chairperson of UNDP Contracts, Assets and Procurement Committee (CAP) at UNDP country office
2	Competitive procurement process	Any contract or series of contracts including amendments to be awarded to a vendor in a calendar year that in aggregate has a cumulative value of: Above the delegated procurement authority and up to US $2 million (applies per year for Long-Term Agreements)	Direct review by the UNDP Regional Advisory Committee on Procurement (RACP), at UNDP regional hub
3.	Competitive procurement process	Any contract or series of contracts including amendments to be awarded to a vendor in a calendar year that in aggregate has a cumulative value of: above the delegated procurement authority Country offices: above US $2 million (applies per year for Long-Term Agreements)	Direct review by the Advisory Committee on Procurement at UNDP HQ level

2. **Shortlist comprising entirely of national consultants**: Shortlist of consultants for services, estimated to cost less than $100,000 equivalent per contract, may comprise entirely of national consultants following the Fund's interest in encouraging the development and use of National Consultants from partner countries of operation.
3. **Any Other Special Selection Arrangements:** [including advance procurement and retroactive financing, if applicable]

4. **Consultancy Assignments with Selection Methods and Time Schedule**

1	2	3	3	4	5	6	7	8	9	10	11	
Ref No.	Description of Assignment	Source of Funds	Estimated Cost	Selection Method	Review by AE/Fund (Prior / Post)	Issuance of Expression of Interest	Finalize shortlist and issue RFP	Proposals Submission Date	Complete Technical Evaluation	Complete Financial Evaluation	Negotiate and Award	Comment
1	Expand hydrological drought early warning system for Amu Darya to Zaravshan and Syr Darya rivers	GCF grants	364,875	RFQ QCBS	Prior, regional level	2022 Q1						
2	Develop automatic procedures for calculating and using avalanche risk maps	GCF grants	104,250	RFQ QCBS	Prior, regional level	2022 Q2						
3	Develop automatic procedures for calculating and using mudflow risks	GCF grants	156,375	RFQ QCBS	Prior, regional level	2022 Q2						
4	Communication materials – maps, brochures and for DEWS system, avalanche and mudflow risk maps to Uzhydromet and MES regional centres	GCF grants	70,000	RFQ QCBS	Prior, local level	2022-2023						
5	Task Manager for output 1 – national consultant (6 years)	GCF grants	126,000	Open competition, CQS	Prior, local level	2022 Q1						
6	Environmental and Social Action Plan - consultant	GCF grants	65,000	RFQ QCBS	Prior, local level	2022 Q2						
7	Task Manager for output 2 – national consultant (6 years)	GCF grants	126,000	Open competition, CQS	Prior, local level	2022 Q1						
8	Climate Risk assessment specialist	GCF grants	100,080	RFQ QCBS	Prior, local level	2024 Q1						

1	2	3	3	4	5	6	7	8	9	10	11	
Ref No.	Description of Assignment	Source of Funds	Estimated Cost	Selection Method	Review by AE/Fund (Prior / Post)	Issuance of Expression of Interest	Finalize shortlist and issue RFP	Proposals Submission Date	Complete Technical Evaluation	Complete Financial Evaluation	Negotiate and Award	Comment
	(International consultant, 3 years part-time) to guide the integration of hazards information and source of vulnerability, for the automated warning system											
9	External translators	GCF grants	31,275	RFQ CQS	Prior, local level	2022 Q2						
10	National experts and translators for Uzhydromet training and community workshops (6 years)	GCF grants	72,000	RFQ CQS and QCBS	Prior, local level	2022 Q2						
11	Ingest data from Uzhydromet into MES risk assessment system – national consultant	GCF grants	50,000	RFQ QCBS	No	2024 Q1						
12	Developing technical guidance and institutional coordination frameworks for MES – national consultant	GCF grants	90,000	RFQ QCBS	Prior, local level	2024 Q1						
13	Developing technical guidance and institutional coordination frameworks for MES – international consultant	GCF grants	60,000	RFQ QCBS	Prior, local level	2024 Q1						

1	2	3	3	4	5	6	7	8	9	10	11	
Ref No.	Description of Assignment	Source of Funds	Estimated Cost	Selection Method	Review by AE/Fund (Prior / Post)	Issuance of Expression of Interest	Finalize shortlist and issue RFP	Proposals Submission Date	Complete Technical Evaluation	Complete Financial Evaluation	Negotiate and Award	Comment
14	Developing a National Framework for Climate Services (NFCS) – international consultant	GCF grants	51,000	RFQ QCBS	Prior, local level	2022 Q2						
15	Developing a National Framework for Climate Services (NFCS) – national consultant	GCF grants	15,000	RFQ QCBS	No	2023 Q1						
16	Developing a sustainable business model for disaster-related information and services based on key stakeholder consultation – international consultant	GCF grants	66,000	RFQ QCBS	No	2023 Q1						
17	Developing a sustainable business model for disaster-related information and services based on key stakeholder consultation– national consultant	GCF grants	12,000	RFQ CQS	No	2023 Q1						
18	Communication materials: Develop, print and distribute project booklets and infographic on climate hazards and associated early warning	GCF grants	30,000	RFQ QCBS	No	2022 Q2						

1	2	3	3	4	5	6	7	8	9	10	11	
Ref No.	Description of Assignment	Source of Funds	Estimated Cost	Selection Method	Review by AE/Fund (Prior / Post)	Issuance of Expression of Interest	Finalize shortlist and issue RFP	Proposals Submission Date	Complete Technical Evaluation	Complete Financial Evaluation	Negotiate and Award	Comment
19	Communication materials: Develop, print and distribute project booklets and infographic on gender-sensitive community-based MHEWS and MHRMP	GCF grants	10,000	RFQ QCBS	No	2022 Q2						
20	National Project Gender Advisor	GCF grants	96,000	Open competition, CQS	Prior, local level	2022 Q1						
21	Gender specialist – international consultant	GCF grants	26,000	RFQ QCBS	No	2022 Q2						
22	M&E specialist – national consultant	GCF grants	12,000	MPO QCBS	No	2022 Q2						
23	Individual contractor: PR and Outreach Specialist (including monitoring and communicating ME&L activities)	GCF grants	108,000	Open competition, CQS	Prior, local level	2022 Q1						
24	Mid-term, terminal evaluation and impact evaluation (survey) - International consultant	GCF grants	64,500	RFQ QCBS	Prior, local level	2024 Q1						
25	Impact survey, national consultant	GCF grants	30,000	RFQ QCBS	No	2023 Q3						
26	National Project Manager	GCF grants	164,400	Open competition, CQS	Prior, local level	2022 Q1						

1	2	3	3	4	5	6	7	8	9	10	11	
Ref No.	Description of Assignment	Source of Funds	Estimated Cost	Selection Method	Review by AE/Fund (Prior / Post)	Issuance of Expression of Interest	Finalize shortlist and issue RFP	Proposals Submission Date	Complete Technical Evaluation	Complete Financial Evaluation	Negotiate and Award	Comment
27	Technical Specifications and Procurement Specialist	GCF grants	92,500	Open competition, CQS	Prior, local level	2022 Q1						
28	Admin-Finance officer, national consultant	GCF grants	110,000	Open competition, CQS	Prior, local level	2022 Q1						
29	Driver	GCF grants	84,000	Open competition, CQS	Prior, local level	2022 Q1						
30	Cleaner	GCF grants	14,400	MPO CQS	No	2022 Q1						
Total (staff and non-consulting services)			**2,401,655**									

Competitive Methods are the following:

- Quality Cost Based Selection method (QCBS)
- Quality Based Selection (QBS)
- Fixed Budget Selection (FBS)
- Least Cost Selection (LCS)
- Consultants Qualifications Selection (CQS)

Annex F: Terms of References for Project Board and Project Team

The Project Board will:

- Ensure that there is coherent project organization at both the National, Provincial and Area Council levels
- Following the agreement, set tolerances in the Annual Work Plans and other plans as required with the Project Manager, with the involvement of the Project Director (as necessary)
- Monitor and control the progress of the project activities at a strategic level considering the changes influenced by the project on any baseline investments
- Ensure that risks are being tracked and mitigated as effectively as possible
- Organise Project Board meetings, to be Chaired by the Project Director, regularly to be defined by the Board in agreement with the Project Director and Project Manager. Normally these meetings will take place quarterly.
- Review and assess progress towards achieving the outputs is consistent from a project supplier perspective
- Promote and maintain focus to deliver the outputs from the project
- Ensure that the resources from the project supplier are readily available
- Arbitrate on, and ensure resolution of any supplier priority or resource conflicts
- Ensure that the expected project outputs and related activities of the project remain consistent with the perspective of project beneficiaries
- Be informed of meetings relevant to overall regional project implementation, including any regional activities conducted in partnership
- Facilitate national policy and institutional changes necessary to engender success in project activities.
- Annually review project progress and make managerial and financial recommendations as appropriate, including recruitment for the Project Management Unit, review and approval of annual reports, budgets and work plans.

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

Project Executive: Is an individual who represents ownership of the project and chairs the Project Board. The Executive is normally the national counterpart for nationally implemented projects. The Project Executive is:

Minister of Emergency Situations (or nominated person)

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

Specific Responsibilities: (as part of the above responsibilities for the Project Board):

- Ensure that there are 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.

Beneficiary Representative(s): Individuals or groups representing the interests of those who will ultimately benefit from the project. Their primary function within the board is to ensure the realization of project results from the perspective of project beneficiaries. Often civil society representative(s) can fulfil this role. The Beneficiary representative (s) is/are:

General Director, Uzhydromet (or nominated person),

Representative of the Ministry of Economic Development and Poverty Reduction,

Representative of the Ministry of Finance,

Representative of the Ministry of Agriculture,

Representative of the Ministry of Water Resources,

Representative of the State Committee for Ecology and Environment Protection,

Representative of the State Service of the Republic of Uzbekistan on Monitoring of Hazard Geologic Processes

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. For the sake of effectiveness, the role should not be split between too many people.

Specific Responsibilities (as part of the above responsibilities for the Project Board)

- 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.

Development Partner(s): Individuals or groups representing the interests of the parties concerned that provide funding and/or technical expertise to the project (and can include UNDP in a NIM project). The Development Partner(s) is/are:

Ms. Matilda Dimovska, UNDP Resident Representative

Specific Responsibilities (as part of the above responsibilities for the Project Board)

- 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 the 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.

Terms of Reference of Technical Services to be provided by UNDP:

- *These staff costs cannot include any oversight functions as this would duplicate GCF implementation functions paid by the GCF Fee.*
- *All technical services must be specified and known and cannot refer to anticipated or expected technical support services.*
- *The qualifications necessary to undertake these technical services must be included in the TOR.*
- *The NCE-VF RTA and the PTA must approve the technical services included in the TOR (and the qualifications). The RTA and the PTA have the full authority to edit, revise, and/or refuse the technical services if they are contrary to GCF policy.*

Terms of Reference for Key Project Staff

UNITED NATIONS DEVELOPMENT PROGRAMME
GENERIC JOB DESCRIPTION

I. Job Information	
Job title:	**Project Manager**
SC range:	SC-10
Project Title/Department:	Enhancing Multi-Hazard Early Warning System to increase the resilience of Uzbekistan communities to climate change-induced hazards"
Duration of the service:	12 months with possible extension
Work status (full time / part-time):	Full time
Reports to:	Environment and Climate Action Cluster Lead
Place of work:	Tashkent

II. Organizational Context

In March 2021, the GCF Board secretariat approved a 6-year (2021 – 2026) project for the Republic of Uzbekistan entitled "Enhancing Multi-Hazard Early Warning System to increase the resilience of Uzbekistan communities to climate change-induced hazards" (hereafter GCF project). The project will be implemented under the National Implementation Modality (NIM) with the Ministry of Emergency Situations of the Republic of Uzbekistan (MES) playing an executing entity's/implementing partner's role for it. This project will respond to a critical need of Uzbekistan to modernize its early warning system into an impact-based MHEWS (initially focused on floods, mudflows, landslides, avalanches and hydrological drought in the more populous and economically important eastern mountainous regions), an essential element of the country's climate risk management framework. In the face of increasing climate risks, this MHEWS will serve to enhance the climate resilience of 32 million people of Uzbekistan (indirect beneficiaries), including the most vulnerable and poor rural communities living in mountainous areas currently at risk from climate-induced hazards.

Specifically, the project will improve methods and capacities for monitoring, modelling and forecasting climate hazards and risks supported with satellite-based remote sensing, create a central repository and analysis system for hydrometeorological hazard and risk information, improve regulations, coordination and institutional mechanisms for an effective impact-based MHEWS, including the development of forecast-based actions. The project will explore and facilitate the concept of forecast-based financing with the national institutional stakeholders responsible for disaster risk management and financing by developing Standard Operating Procedures and prototype decision-making systems/protocols based on the enhanced impact-based forecasting and warning. As a result, the project will significantly enhance the quality and timeliness of climate and disaster-related information available to decision-makers and the dissemination of such information to the population, as well as develop information and procedures for ex-ante actions. Together these activities will demonstrate the potential benefits of the upgraded system and contribute to the transformation of climate and disaster risk management in the country.

The Project Manager will be contributing to enhancing the multi-hazard early warning system and increasing the resilience of Uzbekistan communities to climate change-induced hazards through ensuring effective and efficient implementation of the project. S/he will be in charge of the overall management of the project, including the mobilization of all project inputs, supervision over project staff, consultants and sub-contractors.

III. Functions / Key Results Expected

Under the direct supervision of the ECA Cluster Lead and in close collaboration with relevant project partners, the Project Manager will be responsible for the implementation of the project activities aimed at strengthening the climate services and disaster communications to end-users.

Duties and responsibilities:

- ❑ Manage the overall conduct of the project.
- ❑ Plan the activities of the project and monitor progress against the approved work plan.
- ❑ Execute activities by managing personnel, goods and services, training and low-value grants, including drafting terms of reference and work specifications, and overseeing all contractors' work.
- ❑ Monitor events as determined in the project monitoring plan, and update the plan as required.
- ❑ Provide support for completion of assessments required by UNDP, spot checks and audits.
- ❑ Manage requests for the provision of UNDP financial resources through funding advances, direct payments or reimbursement using the FACE form.
- ❑ Monitor financial resources and accounting to ensure the accuracy and reliability of financial reports.
- ❑ Monitor progress, watch for plan deviations and make course corrections when needed within project board-agreed tolerances to achieve results.
- ❑ Ensure that changes are controlled, and problems addressed.
- ❑ Perform regular progress reporting to the project board as agreed with the board, including measures to address challenges and opportunities.
- ❑ Prepare and submit financial reports to UNDP quarterly.
- ❑ Manage and monitor the project risks – including social and environmental risks - initially identified and submit new risks to the Project Board for consideration and decision on possible actions if required; update the status of these risks by maintaining the risks log;
- ❑ Capture lessons learned during project implementation.
- ❑ Prepare revisions to the multi-year work plan, as needed, as well as annual and quarterly plans if required.
- ❑ Prepare the inception report no later than one month after the inception workshop.
- ❑ Ensure that the indicators included in the project results framework are monitored annually in advance of the GCF APR submission deadline so that progress can be reported in the GCF APR.
- ❑ Prepare the GCF APR;
- ❑ Assess major and minor amendments to the project within the parameters set by NCE-VF;
- ❑ Monitor implementation plans including the gender action plan, stakeholder engagement plan, and any environmental and social management plans;
- ❑ Monitor and track progress against the GCF Core indicators.
- ❑ Support the Mid-term review and Terminal Evaluation process.
- ❑ Ensure proper finalization and closure of the project when required including transfer of assets to partners, programme and operational closure of the project, etc.

IV. Impact of Results

The key results have an impact on the overall success of the project, in particular enhancing multi-hazard early warning system to increase the resilience of Uzbekistan communities to climate change-induced hazards.

V. Competencies and Critical Success Factors

Corporate Competencies:

- Demonstrates integrity by modelling the UN's values and ethical standards
- Promotes the vision, mission, and strategic goals of UNDP
- Demonstrates professional competence and it's conscientious and efficiency in observing deadlines and achieving results;
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability

Functional Competencies:

Knowledge Management and Learning

- Promotes a knowledge sharing and learning culture in the team through leadership and personal example
- Actively works towards continuing personal learning and development in one or more Practice Areas, acts on learning plan and applies newly acquired skills
- Focuses on result for the client and responds positively to feedback

Development and Operational Effectiveness

- Ability to lead planning, results-based management and reporting
- Ability to formulate and manage budgets
- Solid project and personnel management skills, and a consistent record of managing complex and challenging partnerships with governments and bilateral donors
- Practical knowledge and skills for resource mobilization focusing on multilateral and bilateral donors
- Familiarity with UNDP project management

Leadership and Self-Management

- Builds strong relationships with clients, focuses on impact and result for the client and responds positively to feedback
- Consistently approaches work with energy and a positive, constructive attitude
- Demonstrates good oral and written communication skills
- Demonstrates openness to change and ability to manage complexities

VI. Recruitment Qualifications	
Education:	A university degree (MSc or PhD) in a subject related to natural resource management or environmental sciences or disaster risk management, or energy engineering, business administration, finance, or economics.
Experience:	Proven track of at least 5 years of demonstrable project/programme management experience. At least 5 years of experience working with ministries, national or provincial institutions that are concerned with natural resource and/or environmental management. At least 5 years of relevant work experience preferably in a project management setting involving a multi-lateral/ international funding agency. Previous experience with the UN project will be a strong asset. Knowledge and understanding of climate change adaptation and disaster risk management context of Uzbekistan.
Language Requirements:	Fluency in English, good knowledge of Uzbek and Russian.
Others:	Knowledge of and experience in gender mainstreaming is an asset; Strong leadership, managerial and coordination skills, with a demonstrated ability to effectively coordinate the implementation of large multi-stakeholder projects, including financial and technical aspects.

	Ability to effectively manage technical and administrative teams, work with a wide range of stakeholders across various sectors and at all levels, to develop durable partnerships with collaborating agencies. Ability to coordinate and supervise multiple Project Implementation Units in their implementation of technical activities in partnership with a variety of stakeholder groups, including community and government. Strong drafting, presentation and reporting skills. Strong computer skills, in particular mastery of all applications of the MS Office package and internet search. Willingness to travel as appropriate

VII. Signatures- Post Description Certification		
Incumbent *(if applicable)*		
Name	Signature	Date
Supervisor		
	Signature	Date

UNITED NATIONS DEVELOPMENT PROGRAMME
GENERIC JOB DESCRIPTION

I. Job Information

Job title:	**Task Manager on Climate Risks Issues**
SC range:	SC-8/SB4/1
Project Title/Department:	Enhancing Multi-Hazard Early Warning System to increase the resilience of Uzbekistan communities to climate change-induced hazards/ECA Cluster
Duration of the service:	12 months with possible extension
Work status (full time / part-time):	Full time
Reports to:	Project Manager
Place of work:	Tashkent

II. Organizational Context

In March 2021, the GCF Board secretariat approved a 6-year (2021 – 2026) project for the Republic of Uzbekistan entitled "Enhancing Multi-Hazard Early Warning System to increase the resilience of Uzbekistan communities to climate change-induced hazards" (hereafter GCF project). The project will be implemented under the National Implementation Modality (NIM) with the Ministry of Emergency Situations of the Republic of Uzbekistan (MES) playing an executing entity's/implementing partner's role for it. This project will respond to a critical need of Uzbekistan to modernize its early warning system into an impact-based MHEWS (initially focused on floods, mudflows, landslides, avalanches and hydrological drought in the more populous and economically important eastern mountainous regions), an essential element of the country's climate risk management framework. In the face of increasing climate risks, this MHEWS will serve to enhance the climate resilience of 32 million people of Uzbekistan (indirect beneficiaries), including the most vulnerable and poor rural communities living in mountainous areas currently at risk from climate-induced hazards.

Specifically, the project will improve methods and capacities for monitoring, modelling and forecasting climate hazards and risks supported with satellite-based remote sensing, create a central repository and analysis system for hydrometeorological hazard and risk information, improve regulations, coordination and institutional mechanisms for an effective impact-based MHEWS, including the development of forecast-based actions. The project will explore and facilitate the concept of forecast-based financing with the national institutional stakeholders responsible for disaster risk management and financing by developing Standard Operating Procedures and prototype decision-making systems/protocols based on the enhanced impact-based forecasting and warning. As a result, the project will significantly enhance the quality and timeliness of climate and disaster-related information available to decision-makers and the dissemination of such information to the population, as well as develop information and procedures for ex-ante actions. Together these activities will demonstrate the potential benefits of the upgraded system and contribute to the transformation of climate and disaster risk management in the country.

The Task Manager on Climate Risks Issues will be contributing to enhancing the multi-hazard early warning system and increasing the resilience of Uzbekistan communities to climate change-induced hazards with a focus on investing in automatic hydro-meteorological monitoring infrastructure required for the generation of hazard-

specific forecasting and risk models. S/he will be in charge of coordination and implementation of the project activities related to the upgrading of the hydro-meteorological observation network, modelling and forecasting capacities, which should be done through the establishment of sound cooperation with Uzhydromet as the immediate beneficiary and all the users of the upgraded hydro-meteorological observation network, modelling and forecasting capacities.

III. Functions / Key Results Expected

Under the direct supervision of the Project Manager and in close collaboration with relevant project partners, the Task Manager will be responsible for the implementation of the project activities aimed at upgrading the hydro-meteorological observation network, modelling and forecasting capacities.

Duties and responsibilities:

- Be responsible for the achievement and implementation of the project activities within the Output 1 focused on upgrading the hydro-meteorological observation network, modelling and forecasting capacities, including activities related NFCS establishment and business model development under Output 3.
- Plan and implement the work following the overall work plan using both human and financial resources available most effectively and efficiently.
- Streamline the most effective mechanisms for the programme facilitation and implementation, elaborate and propose new schemes and effective ways to achieve target indicators.
- Participate in elaboration and execution of the project's work plans, analyse emerging problems and propose adequate measures to ensure timely fulfilment of envisioned tasks.
- Liaise with relevant stakeholders to obtain support and guidance required for management and implementation of the proposed activities.
- Facilitate the process of technical and expert assistance to programme stakeholders, lead the work of international and local consultants involved in the implementation of the given project component ensuring timely, effective and efficient delivery of results.
- Coordinate and facilitate the upgrading and modernization of the meteorological and hydrological Observation System.
- Coordinate and facilitate the process of upgrading Uzhydromet capacity to store, process and develop hazard products, as well as to communicate hydrometeorological data to regional divisions.
- In coordination with relevant partners, coordinate capacity-building activities for re-training and advanced training of Uzhydromet staff on monitoring and forecasting technologies and procedures i.e. KOSMO, UNIMAS, MITRA, etc.
- Facilitate the organization of on-the-job training, engagement with universities, courses and seminars with the involvement of foreign specialists.
- Coordinate the establishment of the National Framework for Climate Services (NFCS) for Uzbekistan through facilitating the extensive consultations with the various sectors, users and co-producers of climate services and reaching a broad agreement and Governmental endorsement for NFCS implementation.
- Facilitate the setup of the NFCS user dialogue platform and the National Climate Outlook Forum.
- In coordination with the Task Manager on Early Warning Systems develop a sustainable value chain-based business model for disaster-related information and facilitate the stakeholders' consultations and the necessary legal and organizational changes on the national (adjustment of legislation) and the inter-institutional levels (Uzhydromet, MES, users of the services, private investors).
- Provide expert support to partners to identify modalities for the provision of climate-related services and products, through extended participation of private sector stakeholder, as well as designing a sustainable business model for disaster-related information and services.
- Working with the Task Manager on Early Warning Systems on integrating the planned services and functions with the MES risk management system for forecast-based actions.
- Coordinate the development of printed materials on Drought Early Warning System, avalanches and mudflows risk maps for Uzhydromet and MES regional centres.

- ❑ Capture, synthesize and store knowledge and ensure that knowledge and information generated are institutionalized through the creation of a relevant knowledge management system.
- ❑ Organize and monitor the process of installation works in target locations, ensure that calculations, budgets and design of the projects are accurate and properly prepared.
- ❑ Ensure that costs are in conformance with the volume of works and expenditures budgeted.
- ❑ Contribute to the promotion of gender equality by reaching, involving and benefiting both women and men in the project activities (gender mainstreaming).
- ❑ Assist the Project Manager in preparing progress reports, lessons learned and provide relevant recommendations.
- ❑ Contribute to the donor reporting process by providing relevant information and data on conducted activities.
- ❑ Facilitate knowledge and best practice sharing between projects, UN agencies, national implementing partner, government, communities to deeper integrate the work and idea of the project; participate in relevant networks and meetings of practitioners.
- ❑ Serve as a resource person on the upgrading of the hydro-meteorological observation network, modelling and forecasting capacities for the project and key stakeholders and beneficiaries.
- ❑ Facilitate planning and developing analytical reports, information documents with basic fact sheets and other deliverables aimed at enhancing public awareness of the programme activities and results.
- ❑ Contribute to projects' advocacy campaigns and facilitate the process of increasing visibility of the project activities and results.
- ❑ Perform other duties and responsibilities as required.

IV. Impact of Results

The key results have an impact on the overall success of the project, in particular enhancing the technical capacities and Uzhydromet through the upgrading of the hydro-meteorological observation network, modelling and forecast capacities and establishing functional integration with the MES risk management system.

V. Competencies and Critical Success Factors

Corporate Competencies:

- Demonstrates integrity by modelling the UN's values and ethical standards
- Promotes the vision, mission, and strategic goals of UNDP
- Demonstrates professional competence and its conscientious and efficiency in observing deadlines and achieving results;
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability

Functional Competencies:

Knowledge Management and Learning

- Promotes a knowledge sharing and learning culture in the team through leadership and personal example
- Actively works towards continuing personal learning and development in one or more Practice Areas, acts on learning plan and applies newly acquired skills
- Focuses on result for the client and responds positively to feedback

Development and Operational Effectiveness

- Ability to lead planning, results-based management and reporting
- Ability to formulate and manage budgets
- Solid project and personnel management skills, and a consistent record of managing complex and challenging partnerships with governments and bilateral donors
- Practical knowledge and skills for resource mobilization focusing on multilateral and bilateral donors
- Familiarity with UNDP project management

Leadership and Self-Management

- Builds strong relationships with clients, focuses on impact and result for the client and responds positively to feedback
- Consistently approaches work with energy and a positive, constructive attitude
- Demonstrates good oral and written communication skills
- Demonstrates openness to change and ability to manage complexities

VI. Recruitment Qualifications	
Education:	University degree in hydrology, meteorology, environmental engineering, fields relevant to hydrometeorological monitoring or other related disciplines/sciences.
Experience:	Proven track of at least 3 years of work experience in hydrometeorological monitoring, and at least a part of it in network design. Experience with projects on hydrometeorological service provision. Experience in the assessment of climate change impact is an asset. Experience with the UN and/or other international development organizations is an advantage.
Language Requirements:	Fluency in English, good knowledge of Uzbek and Russian.
Others:	Strong analytical and organizational skills, ability to work in a team. The initiative, analytical skills, good ability in partnering and networking. Excellent interpersonal and cross-cultural communication skills. Excellent analytical and report writing skills. Ability to use information technologies as a tool and resource. Commitment to UN values.

VII. Signatures- Post Description Certification		
Incumbent *(if applicable)* Name	Signature	Date
Supervisor Signature		Date

UNITED NATIONS DEVELOPMENT PROGRAMME
GENERIC JOB DESCRIPTION

I. Job Information	
Job title:	**Task Manager on Early Warning Systems**
SC range:	SC-8/SB4/1
Project Title/Department:	Enhancing Multi-Hazard Early Warning System to increase the resilience of Uzbekistan communities to climate change-induced hazards/ECA Cluster
Duration of the service:	12 months with possible extension
Work status (full time / part-time):	Full time
Reports to:	Project Manager
Place of work:	Tashkent

II. Organizational Context

In March 2021, the GCF Board secretariat approved a 6-year (2021 – 2026) project for the Republic of Uzbekistan entitled "Enhancing Multi-Hazard Early Warning System to increase the resilience of Uzbekistan communities to climate change-induced hazards" (hereafter GCF project). The project will be implemented under the National Implementation Modality (NIM) with the Ministry of Emergency Situations of the Republic of Uzbekistan (MES) playing an executing entity's/implementing partner's role for it. This project will respond to a critical need of Uzbekistan to modernize its early warning system into an impact-based MHEWS (initially focused on floods, mudflows, landslides, avalanches and hydrological drought in the more populous and economically important eastern mountainous regions), an essential element of the country's climate risk management framework. In the face of increasing climate risks, this MHEWS will serve to enhance the climate resilience of 32 million people of Uzbekistan (indirect beneficiaries), including the most vulnerable and poor rural communities living in mountainous areas currently at risk from climate-induced hazards.

Specifically, the project will improve methods and capacities for monitoring, modelling and forecasting climate hazards and risks supported with satellite-based remote sensing, create a central repository and analysis system for hydrometeorological hazard and risk information, improve regulations, coordination and institutional mechanisms for an effective impact-based MHEWS, including the development of forecast-based actions. The project will explore and facilitate the concept of forecast-based financing with the national institutional stakeholders responsible for disaster risk management and financing by developing Standard Operating Procedures and prototype decision-making systems/protocols based on the enhanced impact-based forecasting and warning. As a result, the project will significantly enhance the quality and timeliness of climate and disaster-related information available to decision-makers and the dissemination of such information to the population, as well as develop information and procedures for ex-ante actions. Together these activities will demonstrate the potential benefits of the upgraded system and contribute to the transformation of climate and disaster risk management in the country.

The Task Manager on Early Warning Systems will be contributing to enhancing the multi-hazard early warning system and increasing the resilience of Uzbekistan communities to climate change-induced hazards with a focus

on strengthening the climate services and disaster communications to end-users. S/he will be in charge of coordination and implementation of the project activities related to the effectiveness of delivering climate information services and disaster warnings to users in Uzbekistan.

III. Functions / Key Results Expected

Under the direct supervision of the Project Manager and in close collaboration with relevant project partners, the Task Manager will be responsible for the implementation of the project activities aimed at strengthening the climate services and disaster communications to end-users.

Duties and responsibilities:

- Be responsible for the achievement and implementation of the project activities within the Output 2 focused on establishment of Multi-Hazard Early Warning System based on innovative impact modelling, risk analyses, effective regional communication and community awareness, including activities related to delivering climate information services and disaster warnings to users in Uzbekistan under the Output 3.
- Plan and implement the work following the overall work plan using both human and financial resources available most effectively and efficiently.
- Streamline the most effective mechanisms for the programme facilitation and implementation, elaborate and propose new schemes and effective ways to achieve target indicators.
- Participate in elaboration and execution of the project's work plans, analyze emerging problems and propose adequate measures to ensure timely fulfilment of envisioned tasks.
- Liaise with relevant stakeholders to obtain support and guidance required for management and implementation of the proposed activities.
- Facilitate the process of technical and expert assistance to programme stakeholders, lead the work of international and local consultants involved in the implementation of the given project component ensuring timely, effective and efficient delivery of results.
- Coordinate development and installation of modernised and efficient system for assessing climate risks based on dynamic information on both hazards and vulnerabilities, including socio-economic risk models for decision making and prioritization of resilience building long-term/future investments.
- Coordinate development and introduction of technical guidance, institutional and coordination frameworks to increase the efficiency of data collection, hazards mapping, risks assessment, warnings and dissemination of information to RCMCs.
- Lead the process of designing and implementing a system for information dissemination to RCMCs and area specific mobile alerts, including an information visualization system for RCMCs.
- In coordination with the Task Manager on Climate Risks Issues develop a sustainable value chain-based business model for disaster-related information and facilitate the stakeholders' consultations and the necessary legal and organizational changes on the national (adjustment of legislation) and the inter-institutional levels (Uzhydromet, MES, users of the services, private investors).
- Provide expert support to partners to identify modalities for the provision of climate-related services and products, through extended participation of private sector stakeholder, as well as designing a sustainable business model for disaster-related information and services.
- Organize and monitor the process of installation of communication audio-visual equipment for community-level early warning and risk information dissemination.
- Coordinate capacity-building activities for communities to interpret and use the information on climate hazards and early warnings.
- Facilitate the organization of training and engagement with MES RCMCs and Red Crescent Society.
- Coordinate the development of printed materials on climate hazards and associate warnings.
- Facilitate the development of region-specific broadcasting of early warnings, with the use of other modern communication channels such as social media and electronic messenger subscription groups.
- Facilitate the establishment of a platform for organizing annual community forums on community-based EWS engaging target communities and representatives of vulnerable groups to exchange information, lessons learned, successes and opportunities.

- ❑ Capture, synthesize and store knowledge and ensure that knowledge and information generated are institutionalized through the creation of a relevant knowledge management system.
- ❑ Ensure that costs are in conformance with the volume of works and expenditures budgeted.
- ❑ Contribute to the promotion of gender equality by reaching, involving and benefiting both women and men in the project activities (gender mainstreaming).
- ❑ Assist the Project Manager in preparing progress reports, lessons learned and provide relevant recommendations.
- ❑ Contribute to the donor reporting process by providing relevant information and data on conducted activities.
- ❑ Facilitate knowledge and best practice sharing between projects, UN agencies, national implementing partner, government, communities to deeper integrate the work and idea of the project; participate in relevant networks and meetings of practitioners.
- ❑ Serve as a resource person on strengthening the climate services and disaster communications to end-users for the project and key stakeholders and beneficiaries.
- ❑ Facilitate planning and developing analytical reports, information documents with basic fact sheets and other deliverables aimed at enhancing public awareness of the programme activities and results.
- ❑ Contribute to projects' advocacy campaigns and facilitate the process of increasing visibility of the project activities and results.
- ❑ Perform other duties and responsibilities as required.

IV. Impact of Results

The key results have an impact on the overall success of the project, in particular strengthening the effectiveness of delivering climate information services and disaster warnings to users in Uzbekistan, making the project a successful initiative in the region.

V. Competencies and Critical Success Factors

Corporate Competencies:

- Demonstrates integrity by modelling the UN's values and ethical standards
- Promotes the vision, mission, and strategic goals of UNDP
- Demonstrates professional competence and its conscientious and efficiency in observing deadlines and achieving results;
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability

Functional Competencies:

Knowledge Management and Learning

- Promotes a knowledge sharing and learning culture in the team through leadership and personal example
- Actively works towards continuing personal learning and development in one or more Practice Areas, acts on learning plan and applies newly acquired skills
- Focuses on result for the client and responds positively to feedback

Development and Operational Effectiveness

- Ability to lead planning, results-based management and reporting
- Ability to formulate and manage budgets
- Solid project and personnel management skills, and a consistent record of managing complex and challenging partnerships with governments and bilateral donors
- Practical knowledge and skills for resource mobilization focusing on multilateral and bilateral donors
- Familiarity with UNDP project management

Leadership and Self-Management

- Builds strong relationships with clients, focuses on impact and result for the client and responds positively to feedback
- Consistently approaches work with energy and a positive, constructive attitude
- Demonstrates good oral and written communication skills
- Demonstrates openness to change and ability to manage complexities

VI. Recruitment Qualifications	
Education:	University degree in meteorology, environmental engineering, disaster risk management or other related disciplines/sciences.
Experience:	Proven track of at least 3 years of work experience in project implementation preferably in climate services or disaster risk reduction. Experience in disaster communication is an asset. Experience in private sector partnerships for resilience/climate and disaster risk financing is an asset. Experience with the UN and/or other international development organizations is an advantage.
Language Requirements:	Fluency in English, good knowledge of Uzbek and Russian.
Others:	Strong analytical and organizational skills, ability to work in a team. The initiative, analytical skills, good ability in partnering and networking. Excellent interpersonal and cross-cultural communication skills. Excellent analytical and report writing skills. Ability to use information technologies as a tool and resource. Commitment to UN values.

VII. Signatures- Post Description Certification		
Incumbent (*if applicable)*		
Name	Signature	Date
Supervisor		
	Signature	Date

UNITED NATIONS DEVELOPMENT PROGRAMME
GENERIC JOB DESCRIPTION

I. Job Information	
Job title:	**PR and Outreach Specialist (with M&E Function)**
SC range:	SC-6
Project Title/Department:	Enhancing Multi-Hazard Early Warning System to increase the resilience of Uzbekistan communities to climate change-induced hazards"
Duration of the service:	12 months with possible extension
Work status (full time / part-time):	Full time
Reports to:	Project Manager
Place of work:	Tashkent

II. Organizational Context

In March 2021, the GCF Board secretariat approved a 6-year (2021 – 2026) project for the Republic of Uzbekistan entitled "Enhancing Multi-Hazard Early Warning System to increase the resilience of Uzbekistan communities to climate change-induced hazards" (hereafter GCF project). The project will be implemented under the National Implementation Modality (NIM) with the Ministry of Emergency Situations of the Republic of Uzbekistan (MES) playing an executing entity's/implementing partner's role for it. This project will respond to a critical need of Uzbekistan to modernize its early warning system into an impact-based MHEWS (initially focused on floods, mudflows, landslides, avalanches and hydrological drought in the more populous and economically important eastern mountainous regions), an essential element of the country's climate risk management framework. In the face of increasing climate risks, this MHEWS will serve to enhance the climate resilience of 32 million people of Uzbekistan (indirect beneficiaries), including the most vulnerable and poor rural communities living in mountainous areas currently at risk from climate-induced hazards.

Specifically, the project will improve methods and capacities for monitoring, modelling and forecasting climate hazards and risks supported with satellite-based remote sensing, create a central repository and analysis system for hydrometeorological hazard and risk information, improve regulations, coordination and institutional mechanisms for an effective impact-based MHEWS, including the development of forecast-based actions. The project will explore and facilitate the concept of forecast-based financing with the national institutional stakeholders responsible for disaster risk management and financing by developing Standard Operating Procedures and prototype decision-making systems/protocols based on the enhanced impact-based forecasting and warning. As a result, the project will significantly enhance the quality and timeliness of climate and disaster-related information available to decision-makers and the dissemination of such information to the population, as well as develop information and procedures for ex-ante actions. Together these activities will demonstrate the potential benefits of the upgraded system and contribute to the transformation of climate and disaster risk management in the country.

The PR and Outreach Officer will be contributing to enhancing the multi-hazard early warning system and increasing the resilience of Uzbekistan communities to climate change-induced hazards through leading the knowledge management outputs and disseminating information on the project activities and results. S/he will be in charge of

the provision of thematic and operational services for coordination and implementation of the public relations, knowledge management and outreach activities.

III. Functions / Key Results Expected

Under the direct supervision of the Project Manager, Public Relations and Outreach Specialist will be responsible for the satisfactory achievement of the entrusted functions and tasks, having the responsibility to leading knowledge management outputs and developing the project communications strategy at the project outset and coordinating its implementation across all project components. S/he will work closely with the M&E Officer on knowledge management aspects of the project. Specific responsibilities will include:

Duties and responsibilities:

- Develop a project communications strategy/plan, incorporate it with the annual work plans and update it annually in consultation with project stakeholders and coordinate its implementation;
- Coordinate the implementation of knowledge management outputs of the project;
- Facilitate the design and maintenance of the project website/webpages and ensure it is up-to-date and dynamic;
- Be responsible for overall coordination of project's background materials, information packages, press releases, press-kits, media advisories, newsletters, public information and bulletins;
- Support the project manager and task managers in incorporating all newly developed project materials for publication, coordinate the work of layout-designers, and maintain digest of news and events about the project;
- Ensure translation of press releases, news, bulletins, web-page follow-up stories in three languages (English, Russian, Uzbek) and provide interpretation services when required;
- Photograph and take a video of each project-related event for press releases and web-page follow-up stories;
- In cooperation with the Project Manager and relevant task managers develop articles for national and local media and success stories on the best practices and achievements of the project for UNDP/GCF-supported global web-portals and other international media;
- Be responsible for common style and coordination of design and usage of information and logo in all printing materials and publications;
- Be responsible for the preparation and distribution of promotional materials to ensure project visibility with the main government counterparts, civil society, donors and media;
- Facilitate organization and planning of media coverage, preparation of media kits for project-facilitated round tables, workshops, briefings or any other information events;
- Assist Project Manager in conducting conferences, meetings, presentations, workshops and other project activities related to raising awareness at the local, regional and national levels;
- Assist in identifying and establishing partnerships with potential stakeholders, donors, etc;
- Contribute to resource mobilization of project activities;
- Facilitate learning and sharing of knowledge and experiences relevant to the project;
- Maintain relations with the UNDP Communication and Learning Staff and other national and international organizations, including the national and local media;
- Submit both monthly and quarterly reports to Project Manager on PR and Outreach activities;
- Ensures that project contributes to the promotion of gender equality by reaching, involving and benefiting both women and men in its activities (gender mainstreaming);
- Conveying the monitoring and evaluation outputs;
- Presenting the learning outputs and best practices;
- Perform other duties related to the scope of work of the Public Relations and Outreach Specialist as required.

IV. Impact of Results

The key results have an impact on the overall success of the project, in particular, disseminating information

V. Competencies and Critical Success Factors

Corporate Competencies:

- o Demonstrates integrity by modelling the UN's values and ethical standards
- o Promotes the vision, mission, and strategic goals of UNDP
- o Demonstrates professional competence and its conscientious and efficiency in observing deadlines and achieving results;
- o Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability

Functional Competencies:

Knowledge Management and Learning

- o Promotes a knowledge sharing and learning culture in the team through leadership and personal example
- o Actively works towards continuing personal learning and development in one or more Practice Areas, acts on learning plan and applies newly acquired skills
- o Focuses on result for the client and responds positively to feedback

Development and Operational Effectiveness

- o Ability to lead planning, results-based management and reporting
- o Ability to formulate and manage budgets
- o Solid project and personnel management skills, and a consistent record of managing complex and challenging partnerships with governments and bilateral donors
- o Practical knowledge and skills for resource mobilization focusing on multilateral and bilateral donors
- o Familiarity with UNDP project management

Leadership and Self-Management

- o Builds strong relationships with clients, focuses on impact and result for the client and responds positively to feedback
- o Consistently approaches work with energy and a positive, constructive attitude
- o Demonstrates good oral and written communication skills
- o Demonstrates openness to change and ability to manage complexities

VI. Recruitment Qualifications

Education:	University degree in journalism, communication, public administration and public policy, economics and finance, development studies
Experience:	At least three years of relevant work experience in communications for a project or programme implementation, ideally involving international donors. Previous experience with UN projects will be a definite asset. Previous experience in developing and implementing communications strategies for organizations or projects.
Language Requirements:	Fluency in English, good knowledge of Uzbek and Russian.
Others:	Strong professional working capacity to use the information and communications technology, specifically including website design and desktop publishing software. Understanding climate resilience and disaster risk reduction issues. Strong analytical and organizational skills, ability to work in a team. The initiative, analytical skills, good ability in partnering and networking. Excellent interpersonal and cross-cultural communication skills. Excellent analytical and report writing skills. Ability to use information technologies as a tool and resource. Commitment to UN values.

VII. Signatures- Post Description Certification

Incumbent *(if applicable)* Name	Signature	Date
Supervisor	Signature	Date

UNITED NATIONS DEVELOPMENT PROGRAMME
GENERIC JOB DESCRIPTION

I. Job Information	
Job title:	**Technical Specifications and Procurement Specialist**
SC range:	SC-6
Project Title/Department:	Enhancing Multi-Hazard Early Warning System to increase the resilience of Uzbekistan communities to climate change-induced hazards"
Duration of the service:	12 months with possible extension
Work status (full time / part-time):	Full time
Reports to:	Project Manager
Place of work:	Tashkent

II. Organizational Context

In March 2021, the GCF Board secretariat approved a 6-year (2021 – 2026) project for the Republic of Uzbekistan entitled "Enhancing Multi-Hazard Early Warning System to increase the resilience of Uzbekistan communities to climate change-induced hazards" (hereafter GCF project). The project will be implemented under the National Implementation Modality (NIM) with the Ministry of Emergency Situations of the Republic of Uzbekistan (MES) playing an executing entity's/implementing partner's role for it. This project will respond to a critical need of Uzbekistan to modernize its early warning system into an impact-based MHEWS (initially focused on floods, mudflows, landslides, avalanches and hydrological drought in the more populous and economically important eastern mountainous regions), an essential element of the country's climate risk management framework. In the face of increasing climate risks, this MHEWS will serve to enhance the climate resilience of 32 million people of Uzbekistan (indirect beneficiaries), including the most vulnerable and poor rural communities living in mountainous areas currently at risk from climate-induced hazards.

Specifically, the project will improve methods and capacities for monitoring, modelling and forecasting climate hazards and risks supported with satellite-based remote sensing, create a central repository and analysis system for hydrometeorological hazard and risk information, improve regulations, coordination and institutional mechanisms for an effective impact-based MHEWS, including the development of forecast-based actions. The project will explore and facilitate the concept of forecast-based financing with the national institutional stakeholders responsible for disaster risk management and financing by developing Standard Operating Procedures and prototype decision-making systems/protocols based on the enhanced impact-based forecasting and warning. As a result, the project will significantly enhance the quality and timeliness of climate and disaster-related information available to decision-makers and the dissemination of such information to the population, as well as develop information and procedures for ex-ante actions. Together these activities will demonstrate the potential benefits of the upgraded system and contribute to the transformation of climate and disaster risk management in the country.

The Technical Specifications and Procurement Specialist will be contributing to the achievement of the project outputs through the facilitation of the procurement part of the activities. S/he will be in charge of the overall management of these activities.

III. Functions / Key Results Expected

Under the overall supervision and guidance of the Project Manager, the Technical Specifications and Procurement Specialist will be responsible for the preparation of the required technical specifications, planning and management of procurement activities as part of the project Implementation arrangements, following relevant UNDP, GFC Procurement Guidelines.

Duties and responsibilities:

- ❑ Assisting and supporting of preparation of AWPB i.e. preparing annual procurement plans and procurement evaluation reports and undertaking procurement activities as per the Annual Work Plan and Budgets (AWPB) and Procurement Plan, which provides the estimated costs and the basis for the procurement methods for each procurement item under the project;
- ❑ Conducting Procurement processes, developing procurement plans i.e. conducting market research, preparing required technical specifications for procurement of goods, services and works, reviewing in interaction with the project team, technical specifications for procurement of goods, works and services and preparing in collaboration with UNDP, bidding documents, tender notices, and invitations for bids, bid solicitations, facilitation of site visits and pre-bid meetings, evaluation of bids, conducting due diligence and value for money analysis, preparation of documents for the review committee, facilitation of the negotiation process with bid winners, issuance of contracts;
- ❑ Ensuring effective administrative controls over procurement documentation i.e., maintaining all the records relating to procurement and maintaining a separate record relating to complaints and their redressal;
- ❑ Conducting contract management i.e. administering contracts to ensure compliance with the contracts' conditions, payment terms.

IV. Impact of Results

The key results have an impact on the overall success of the project, in particular provision of sound management of the procurement activities.

V. Competencies and Critical Success Factors

Corporate Competencies:

- o Demonstrates integrity by modelling the UN's values and ethical standards
- o Promotes the vision, mission, and strategic goals of UNDP
- o Demonstrates professional competence and its conscientious and efficiency in observing deadlines and achieving results;
- o Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability

Functional Competencies:

Knowledge Management and Learning

- o Promotes a knowledge sharing and learning culture in the team through leadership and personal example
- o Actively works towards continuing personal learning and development in one or more Practice Areas, acts on learning plan and applies newly acquired skills
- o Focuses on result for the client and responds positively to feedback

Development and Operational Effectiveness

- o Ability to lead planning, results-based management and reporting
- o Ability to formulate and manage budgets
- o Solid project and personnel management skills, and a consistent record of managing complex and challenging partnerships with governments and bilateral donors
- o Practical knowledge and skills for resource mobilization focusing on multilateral and bilateral donors
- o Familiarity with UNDP project management

Leadership and Self-Management

- o Builds strong relationships with clients, focuses on impact and result for the client and responds positively to feedback
- o Consistently approaches work with energy and a positive, constructive attitude
- o Demonstrates good oral and written communication skills
- o Demonstrates openness to change and ability to manage complexities

VI. Recruitment Qualifications

Education:	Bachelor's degree in Business Management, Economics, Engineering, Finance, Public Administration and Law or any other related field
Experience:	At least 3 years of active practical experience in the procurement field; Procurement experience in projects financed by an International Financial Institution, UNDP is an asset; Good knowledge of international organizations and national procurement regulations and procedures; Attendance to internationally funded projects procurement training and previous procurement expert certificate is an asset.
Language Requirements:	Fluency in English, good knowledge of Uzbek and Russian.
Others:	Ability to communicate, negotiate, analyze, elaborate, and report. The ability of team spirit, good interpersonal and conflict management skills, integrity and confidentiality, interpersonal and time management skills. Literacy at Microsoft Office Programs, Windows-based applications; Experience in handling web-based management systems.

VII. Signatures- Post Description Certification		
Incumbent *(if applicable)* Name	Signature	Date
Supervisor 	Signature	Date

UNITED NATIONS DEVELOPMENT PROGRAMME
GENERIC JOB DESCRIPTION

I. Job Information	
Job title:	**Admin/Finance Specialist**
SC range:	SC-6
Project Title/Department:	Enhancing Multi-Hazard Early Warning System to increase the resilience of Uzbekistan communities to climate change-induced hazards"
Duration of the service:	12 months with possible extension
Work status (full time / part-time):	Full time
Reports to:	Project Manager
Place of work:	Tashkent

II. Organizational Context

In March 2021, the GCF Board secretariat approved a 6-year (2021 – 2026) project for the Republic of Uzbekistan entitled "Enhancing Multi-Hazard Early Warning System to increase the resilience of Uzbekistan communities to climate change-induced hazards" (hereafter GCF project). The project will be implemented under the National Implementation Modality (NIM) with the Ministry of Emergency Situations of the Republic of Uzbekistan (MES) playing an executing entity's/implementing partner's role for it. This project will respond to a critical need of Uzbekistan to modernize its early warning system into an impact-based MHEWS (initially focused on floods, mudflows, landslides, avalanches and hydrological drought in the more populous and economically important eastern mountainous regions), an essential element of the country's climate risk management framework. In the face of increasing climate risks, this MHEWS will serve to enhance the climate resilience of 32 million people of Uzbekistan (indirect beneficiaries), including the most vulnerable and poor rural communities living in mountainous areas currently at risk from climate-induced hazards.

Specifically, the project will improve methods and capacities for monitoring, modelling and forecasting climate hazards and risks supported with satellite-based remote sensing, create a central repository and analysis system for hydrometeorological hazard and risk information, improve regulations, coordination and institutional mechanisms for an effective impact-based MHEWS, including the development of forecast-based actions. The project will explore and facilitate the concept of forecast-based financing with the national institutional stakeholders responsible for disaster risk management and financing by developing Standard Operating Procedures and prototype decision-making systems/protocols based on the enhanced impact-based forecasting and warning. As a result, the project will significantly enhance the quality and timeliness of climate and disaster-related information available to decision-makers and the dissemination of such information to the population, as well as develop information and procedures for ex-ante actions. Together these activities will demonstrate the potential benefits of the upgraded system and contribute to the transformation of climate and disaster risk management in the country.

The Administrative and Financial Officer will be contributing to the achievement of the project outputs through the organization of the operational and programmatic management of the project activities. S/he will be in charge of the daily management of these activities.

III. Functions / Key Results Expected

Under direct supervision of the Project Manager, the Administrative and Financial Officer is fully responsible for operational and programmatic management of the project according to the project document, UNDP and GCF corporate rules and procedures and for fulfilling but not limiting the following functions:

Duties and responsibilities:

- ❑ Initiates and coordinates development and finalization of the Project work plans and annual plan of activities;
- ❑ Bear responsibilities for logistics, procurement and recruitment for the project, following corporate UNDP rules and regulations;
- ❑ Keep records of project funds and expenditures, and ensure all project-related financial documentation are well maintained and readily available when required by the Project Manager;
- ❑ Review project expenditures and ensure that project funds are used in compliance with the Project Document and GoI financial rules and procedures;
- ❑ Validate and certify FACE forms before submission to UNDP;
- ❑ Provide necessary financial information as and when required for project management decisions;
- ❑ Provide necessary financial information during project audit(s);
- ❑ Review annual budgets and project expenditure reports, and notify the Project Manager if there are any discrepancies or issues;
- ❑ Consolidate financial progress reports submitted by the responsible parties for implementation of project activities;
- ❑ Liaise and follow up with the responsible parties for implementation of project activities in matters related to project funds and financial progress reports;
- ❑ Perform other duties related to personnel, administrative and financial issues of project as required.

IV. Impact of Results

The key results have an impact on the overall success of the project, in particular the provision of sound operational and programmatic management.

V. Competencies and Critical Success Factors

Corporate Competencies:

- o Demonstrates integrity by modelling the UN's values and ethical standards
- o Promotes the vision, mission, and strategic goals of UNDP
- o Demonstrates professional competence and its conscientious and efficiency in observing deadlines and achieving results;
- o Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability

Functional Competencies:

<u>Knowledge Management and Learning</u>

- o Promotes a knowledge sharing and learning culture in the team through leadership and personal example
- o Actively works towards continuing personal learning and development in one or more Practice Areas, acts on learning plan and applies newly acquired skills
- o Focuses on result for the client and responds positively to feedback

<u>Development and Operational Effectiveness</u>

- o Ability to lead planning, results-based management and reporting
- o Ability to formulate and manage budgets
- o Solid project and personnel management skills, and a consistent record of managing complex and challenging partnerships with governments and bilateral donors
- o Practical knowledge and skills for resource mobilization focusing on multilateral and bilateral donors
- o Familiarity with UNDP project management

<u>Leadership and Self-Management</u>

- o Builds strong relationships with clients, focuses on impact and result for the client and responds positively to feedback
- o Consistently approaches work with energy and a positive, constructive attitude
- o Demonstrates good oral and written communication skills
- o Demonstrates openness to change and ability to manage complexities

VI. Recruitment Qualifications	
Education:	Bachelor degree in any of the following areas: Finance, Economics, Management, Environmental Sciences, International Relations, or any related field.
Experience:	At least five years of relevant work experience preferably in a project management setting involving a multi-lateral/ international funding agency. Previous experience with UNDP or UN project will be a definite asset; Proficiency in the use of computer software applications particularly MS Excel.
Language Requirements:	Fluency in English, good knowledge of Uzbek and Russian.
Others:	Strong financial and administrative skills, result and client-orientation, ability to work in a team; Ability to work under pressure and with tight deadlines, ethics and honesty; Ability to use information and communication technology as a tool and resource; Experience in handling web-based management systems; Ability to handle multiple tasks simultaneously and ability to prioritize

VII. Signatures- Post Description Certification		
Incumbent *(if applicable)*		
Name	Signature	Date
Supervisor		
	Signature	Date

UNITED NATIONS DEVELOPMENT PROGRAMME
GENERIC JOB DESCRIPTION

I. Job Information	
Job title:	**Driver**
SC range:	SC-2
Project Title/Department:	Enhancing Multi-Hazard Early Warning System to increase the resilience of Uzbekistan communities to climate change-induced hazards"
Duration of the service:	12 months with possible extension
Work status (full time / part-time):	Full time
Reports to:	Project Manager
Place of work:	Tashkent

II. Organizational Context

In March 2021, the GCF Board secretariat approved a 6-year (2021 – 2026) project for the Republic of Uzbekistan entitled "Enhancing Multi-Hazard Early Warning System to increase the resilience of Uzbekistan communities to climate change-induced hazards" (hereafter GCF project). The project will be implemented under the National Implementation Modality (NIM) with the Ministry of Emergency Situations of the Republic of Uzbekistan (MES) playing an executing entity's/implementing partner's role for it. This project will respond to a critical need of Uzbekistan to modernize its early warning system into an impact-based MHEWS (initially focused on floods, mudflows, landslides, avalanches and hydrological drought in the more populous and economically important eastern mountainous regions), an essential element of the country's climate risk management framework. In the face of increasing climate risks, this MHEWS will serve to enhance the climate resilience of 32 million people of Uzbekistan (indirect beneficiaries), including the most vulnerable and poor rural communities living in mountainous areas currently at risk from climate-induced hazards.

Specifically, the project will improve methods and capacities for monitoring, modelling and forecasting climate hazards and risks supported with satellite-based remote sensing, create a central repository and analysis system for hydrometeorological hazard and risk information, improve regulations, coordination and institutional mechanisms for an effective impact-based MHEWS, including the development of forecast-based actions. The project will explore and facilitate the concept of forecast-based financing with the national institutional stakeholders responsible for disaster risk management and financing by developing Standard Operating Procedures and prototype decision-making systems/protocols based on the enhanced impact-based forecasting and warning. As a result, the project will significantly enhance the quality and timeliness of climate and disaster-related information available to decision-makers and the dissemination of such information to the population, as well as develop information and procedures for ex-ante actions. Together these activities will demonstrate the potential benefits of the upgraded system and contribute to the transformation of climate and disaster risk management in the country.

The Driver will be contributing to the achievement of the project outputs through the organization of the transportation aspects of the project activities.

III. Functions / Key Results Expected

Under direct supervision of the Project Manager, the driver is fully responsible for fulfilling the following functions following UNDP corporate rules and procedures.

Duties and responsibilities:

- ❑ Drive the office vehicle for the transport of authorized personnel;
- ❑ Deliver and collect mail, documents and other items, meet official personnel at the airport and facilitates immigration and customs formalities and make errands for the project as required;
- ❑ Be responsible for the day-to-day maintenance of the assigned vehicle, checks oil, water, buttery, brakes, tires, etc.;
- ❑ Perform minor repairs and arranges for other repairs;
- ❑ Ensure that the vehicle is kept clean; log official trips, daily mileage, gas consumption, oil changes, greasing;
- ❑ Ensure that the steps required by rules and regulations are taken in case of involvement in an accident;
- ❑ Perform other duties, as required by the Project Manager.

IV. Impact of Results
The key results have an impact on the overall success of the project, in particular the provision of sound transportation services.

V. Competencies and Critical Success Factors

Corporate Competencies:

- o Demonstrates integrity by modelling the UN's values and ethical standards
- o Promotes the vision, mission, and strategic goals of UNDP
- o Demonstrates professional competence and its conscientious and efficiency in observing deadlines and achieving results;
- o Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability

Functional Competencies:

Knowledge Management and Learning

- o Promotes a knowledge sharing and learning culture in the team through leadership and personal example
- o Actively works towards continuing personal learning and development in one or more Practice Areas, acts on learning plan and applies newly acquired skills
- o Focuses on result for the client and responds positively to feedback

Development and Operational Effectiveness

- o Ability to lead planning, results-based management and reporting
- o Ability to formulate and manage budgets
- o Solid project and personnel management skills, and a consistent record of managing complex and challenging partnerships with governments and bilateral donors
- o Practical knowledge and skills for resource mobilization focusing on multilateral and bilateral donors
- o Familiarity with UNDP project management

Leadership and Self-Management

- o Builds strong relationships with clients, focuses on impact and result for the client and responds positively to feedback
- o Consistently approaches work with energy and a positive, constructive attitude
- o Demonstrates good oral and written communication skills
- o Demonstrates openness to change and ability to manage complexities

VI. Recruitment Qualifications	
Education:	Secondary education.

Experience:	At least 5 years of relevant work experience; Driver's license 'B and C' categories; Work experience in any international organization is an advantage.
Language Requirements:	Fluency in English, good knowledge of Uzbek and Russian.
Others:	Honesty, responsiveness, punctuality; Client orientation, ability to work in a team.

VII. Signatures- Post Description Certification		
Incumbent *(if applicable)*		
Name	Signature	Date
Supervisor		
	Signature	Date

Project Monitoring and Evaluation Expert

Under the overall supervision and guidance of the Project Manager, the M&E Expert will have the responsibility for project monitoring and evaluation. The M&E Expert will work closely with the Communications Officer on knowledge management aspects of the project. Specific responsibilities will include:

- Monitor project progress and participate in the production of progress reports ensuring that they meet the necessary reporting requirements and standards;
- Ensure project's M&E meets the requirements of the Government, the UNDP Country Office, and NCE-VF; develop project-specific M&E tools as necessary;
- Oversee and ensure the implementation of the project's M&E plan, including the periodic appraisal of the Project's Theory of Change and Results Framework concerning actual and potential project progress and results;
- Oversee/develop/coordinate the implementation of the stakeholder engagement plan;
- Oversee and guide the design of surveys/ assessments commissioned for monitoring and evaluating project results;
- Facilitate mid-term and terminal evaluations of the project; including management responses;
- Facilitate annual reviews of the project and produce analytical reports from these annual reviews, including learning and other knowledge management products;
- Support project site M&E and learning missions;
- Visit project sites as and when required to appraise project progress on the ground and validate written progress reports.

The Project M& E Expert will be recruited based on the following qualifications

- Masters degree, preferably in the field of environmental or natural resources management;
- At least five years of relevant work experience preferably in a project management setting involving a multi-lateral/ international funding agency. Previous experience with UN project will be a definite asset;
- Significant experience in collating, analyzing and writing up results for reporting purposes;
- Very good knowledge of results-based management and project cycle management, particularly with regards to the M&E approach and methods. Formal training in RBM/ PCM will be a definite asset;
- Knowledge and working experience of the application of gender mainstreaming in international projects;
- Understanding of biodiversity conservation, law enforcement, sustainable livelihoods and associated issues;
- Very good interpersonal skills;
- Proficiency in computer application and information technology.

- Excellent language skills in English (writing, speaking and reading) and in local languages.

Project Safeguards and Gender Advisor

Under the overall supervision and guidance of the Project Manager, the Project Gender Advisor (PGA) will have the responsibility for the implementation of the environmental and social management plan/framework and Gender Action Plan. The PGA will work closely with the M&E Officer and PR and Outreach Officer on related aspects of project implementation, reporting, monitoring, evaluation and communication. Specific responsibilities will include:

- Monitor progress in development/implementation of the project ESMP/ESMF and gender assessment and Action plan, ensuring that UNDPs SES and Gender policies are fully met, and the reporting requirements are fulfilled;
- Oversee/develop/coordinate the implementation of all safeguard and gender-related plans;
- Ensure social and environmental grievances are managed effectively and transparently;
- Review the SESP and gender action plans annually, and update and revise corresponding risk log; mitigation/management plans as necessary;
- Ensure full disclosure with concerned stakeholders;
- Ensure environmental and social risks are identified, avoided, mitigated and managed throughout project implementation;
- Work with the M&E officer to ensure reporting, monitoring and evaluation fully address the safeguard and gender issues of the project;

The Project SGO will be recruited based on the following qualifications:

- Master's degree in gender studies, gender and development, environment, sustainable development or closely related area.
- An environmental and safeguards qualification (certificate, demonstrated experience) is preferable;
- Previous experience in developing and implementing environmental and social safeguard strategies for organizations or projects
- Demonstrated understanding of issues related to gender and sustainable development; at least 5 years of practical working experience in gender mainstreaming, women's empowerment and sustainable development in relevant Country/Region/Area of Work;
- Proven experience in gender issues in Country/Region/Area of Work
- Previous experience in UN project or programme implementation, ideally involving international donors will be a definite asset;
- Demonstrated understanding of the links between sustainable development, social and gender issues;
- Experience in gender-responsive capacity building;
- Experience with project development and results-based management methodologies is highly desired/required;
- Excellent analytical, writing, advocacy, presentation, and communications skills.
- Excellent language skills in English (writing, speaking and reading) and in local languages.

Annex G: UNDP Social and Environmental and Safeguards screening procedure (SESP)

Please see the next page. Only SESP available.

Project Information

Project Information	
1. Project Title	Improving the efficiency and coverage of multi-hazard early warning systems for climate change-induced hazards in Uzbekistan
2. Project Number	PIMS 6218
3. Location (Global/Region/Country)	Uzbekistan

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

QUESTION 1: How Does the Project Integrate the Overarching Principles to Strengthen Social and Environmental Sustainability?
Briefly describe in the space below how the Project mainstreams the human-rights based approach
The project will target 11,296,000 direct and 32,390,000 indirect people across Uzbekistan that are highly vulnerable to climate change-induced extreme events. With the expansions of the Multi-Hazard Early Warning System (MHEWS), the project will outreach the entire population of Uzbekistan to reduce the vulnerability to climate-induced natural disasters. The project will significantly improve access to climate information and provide the ability to warn vulnerable communities of the country of an impending climate event, thereby ensure that remote, socially and economically vulnerable communities receive equal access to warnings and safety information. With this knowledge for example, during impending events, the communities can take proactive steps to ensure the protection of their assets through moving their belongings, animals and other important goods to higher ground, thus increasing their chances to better cope with extreme impacts from climate-induced events. This has significant social and human rights benefits. It allows communities to be more aware of the actions they need to take before an event and builds climate resilience within the communities. The project's risk reduction measures accompanying the MHEWS will target the most vulnerable mountainous communities to enhance local adaptation capacities; reduce the risks of floods, mudflows and landslides including loss of life and assets; secure local livelihoods; and promote growth and diversification of the local economy. The project will improve the dissemination of information to allow them to make a decision before, during and post disasters. It will also provide valuable data that will allow for future planning on how communities need to adapt their current activities to meet the increasing threat of climate change. The project will be developing and implementing Regional Crisis Management Centres EWS (to complement a nationwide MHEWS) and Community-Based Disaster Risk Management approaches. There are no known indigenous peoples and/or ethnic groups and/or internally displaced peoples known to inhabit the specific areas of the interventions. However, before undertaking any intervention, additional stakeholder engagement will be conducted to ensure that any ethnic groups and/or internally displaced peoples are fully consulted to ensure the project will not impact them and/or their cultures/traditions. If any people are found to be located within the area, the project will comply with the UNDP Social and Environment Standard and GCF Policies.

A grievance redress mechanism has been developed for the project (See Attachments 2 and 3).
Briefly describe in the space below how the Project is likely to improve gender equality and women's empowerment
The project does not have a specific focus on gender although it will ensure gender equity. Many of the project beneficiaries will be women; especially within communities where the awareness building and "last mile" communication and dissemination interventions will be built. The project will ensure that women are empowered to benefit from the project interventions, including access to enhanced warning and information about climate risks, which will provide women with improved resilience to cope with climate change impacts.
Briefly describe in the space below how the Project mainstreams environmental sustainability
The project will update the current monitoring network for weather, climate, hydrology, and cryosphere (snow and ice), through both upgrading existing (automating) and installing new monitoring equipment (AWS, automatic hydrological stations, upper air sounding stations, and strategically placed low-cost radars), all on existing infrastructure. The project will have extremely limited environmental and social impacts, with any impacts being highly spatially and temporally restricted and reversible. The environmental and social impacts are likely only as a result of the structural interventions limited to the installation of the hydrometeorological observation equipment and information boards on the existing government sites. Mitigation measures have been fully defined and are outlined in Part B of this document. Based on the assessment, the project is considered to have a low risk, and less so with the management plan actions. The project will provide several significant environmental benefits. By enabling better predictive management of climate-induced disasters (floods, landslides, mudflows, etc.), the project will yield environmental benefits. The degradation of vegetation, water quality and natural habitat due to increased pressure from hydro-meteorological disasters has been a concern. This degradation reduces natural capital both directly, through destabilisation of hill slopes leading to increased risk of landslides and sediment movement, and indirectly, by impeding the long-term sustainability of agricultural livelihoods. With significant additional knowledge, this will improve beneficiaries' knowledge that will have flow-on effects. Enabling the identification of landslide risk areas under heavy rainfall through this project will provide much-needed information ahead of such events. Additionally, the development of hydrological drought forecasting for the Syr Darya and Zeravshon rivers will enable better land-use planning, water and irrigation management, especially during low flows, which will reduce the risks of salinization in agricultural areas. Mudflow and avalanche risk maps and forecasts will also provide prior warning, mitigating the need for prior blasting where there is a build-up of landslips and snow.

Part B. Identifying and Managing Social and Environmental Risks

QUESTION 2: What are the Potential Social and Environmental Risks? *Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any "Yes" responses). If no risks have been identified in Attachment 1 then note "No Risks Identified" and skip to Question 4 and Select "Low Risk". Questions 5 and 6 not required for Low-Risk Projects.*	**QUESTION 3: What is the level of significance of the potential social and environmental risks?** *Note: Respond to Questions 4 and 5 below before proceeding to Question 6*			**QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?**
Risk Description	*Impact and Probability (1-5)*	*Significance (Low, Moderate, High)*	*Comments*	*Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.*
Risk 1: Contamination of water sources During the installation of information boards and the rehabilitation/renovation of the existing hydromet infrastructure/facilities that may be required to allow for the new equipment to be installed on the existing site, it may be necessary to undertake activities that for example, move sediment although this is unlikely. Machinery will also be onsite that if not maintained properly could release fuels and oils etc. If this occurs, there is the potential for the release of chemicals, nutrients, heavy metals and other material from the sediment and these to enter waterways and groundwater systems during the rehabilitation/renovation/installation works.	I = 1 P = 1	**Low**	All locations where renovation/installation activities will be undertaken are within the footprints of existing Government sites. No greenfield sites are proposed as part of the project. Should any activities be undertaken near watercourses, sediment fences and bunding should be installed to ensure that no sediment and any waste is moved offsite. No chemicals, fuels and other materials will be left on site overnight. Where any rainfall is anticipated, appropriate material should be placed under	

			any material that is being stored on-site to ensure there is no seepage into groundwater and surface water ecosystems. These requirements will be included in contract documentation with vendors. Budget of $20,000	
Risk 2: Construction Noise Noise must be limited to machinery used for the renovation works and then installation of the new observation infrastructure or information boards on the existing sites. Noise will likely be generated through the use of machinery and trucks. All machinery should be fitted with noise limiting exhausts and other appropriate interventions.	I = 1 P = 2	**Low**	The contractor that is engaged must consider any sensitive receptors including communities and environmental habitats during any component of the observation infrastructure construction/installation. Where necessary, noise shields should be constructed to reduce the potential for noise to reach these communities and/or environmentally sensitive locations if an impact occurs. These requirements will be included in contract documentation with vendors. Budget: $15,000	
Risk 3: Sediment movement during the installation of hydro-meteorological observation equipment Rehabilitation/renovation works will be required for the installation of the early warning system, weather stations and community information boards. As such, it may be necessary to move sediment	I = 1 P = 2	**Low**	All locations where renovation/installation activities will be undertaken are within the footprints of existing Government sites. No greenfield sites are proposed as part of the project.	

although this is considered to be unlikely. If not managed, this sediment could enter the aquatic environment reducing water quality, or in the alternative, be blown resulting in reduced air quality Machinery will also be onsite that if not maintained properly could release fuels and oils etc. If this occurs, there is the potential for the release of chemicals, nutrients, heavy metals and other material from the sediment and these to enter waterways and groundwater systems during the rehabilitation/renovation works.			Should any activities be undertaken near watercourses, sediment fences and bunding should be installed to ensure that no sediment and any waste is moved offsite. No chemicals, fuels and other materials will be left on site overnight. Where any rainfall is anticipated, appropriate material should be placed under any material that is being stored on-site to ensure there is no seepage into groundwater and surface water ecosystems. These requirements will be included in contract documentation with vendors. Budget of $20,000	
Risk 4 Vegetation Clearing Some vegetation may need to be removed for Activities 1.1, 2.1 and 3.3.	I = 1 P = 2	**Low**	Where any vegetation needs to be removed and/or trimmed, the Contractor, Uzhydromet, Ministry of Emergency Situations and UNDP will ensure that the vegetation is removed and/or trimmed is not a protected species, and any removal/trimming is limited to only that necessary to install the proposed infrastructure. Further, it will be important to ensure that any arboreal species are not impacted in any way	

			through vegetation removal and/or trimming. Where necessary, the project will engage an arboreal animal spotter and botanist before the removal and/or trimming of any vegetation to ensure no important flora species are impacted and no arboreal species are impacted as a result of construction and renovation activities are undertaken. These requirements will be included in contract documentation with vendors. Budget $10,000	
Risk 5: Disturbance of Riverine and Riparian Ecosystems There is the potential for the removal/disturbance of both riparian vegetation and riverine habitats with the installation and/or replacement of new infrastructure under Activity 1.1. This could result in disturbances to flow, arboreal habitat and benthic environments for both invertebrate and vertebrate fauna.	I = 1 P = 2	**Low**	No new works are proposed in any location that does not already have existing infrastructure on Government land. Before any activities, the contractor will under a rapid assessment consistent with international standards to identify any sensitive receptors and were observed although none are anticipated. The project will engage an aquatic ecologist and botanist before the works to ensure no important flora and fauna species are impacted.	

			These requirements will be included in contract documentation with vendors. Budget $10,000	
Risk 6: Locating socially detrimental infrastructure The automated weather stations and early warning systems will be placed at various locations on existing infrastructure. There is the potential for these to be placed in locations that are socially unacceptable if any population groups are excluded from relevant consultations or decision making.	I = 1 P = 2	**Low**	Stakeholders have been consulted during the project design and a stakeholder engagement plan was developed. Additional stakeholder consultation at the local level will be undertaken before the selection of infrastructure (equipment) sites to ensure no impacts. No interventions will be undertaken on private land. All interventions will be constructed on existing infrastructure. Further, any works undertaken under Activity 3.3 will be visually acceptable. The outcome will be to ensure no social impact as all construction activities will be conducted on or within the existing infrastructure. These requirements will be included in contract documentation with vendors. Stakeholder consultations will be pursued following the Stakeholder Engagement Plan and the Plan will be regularly updated. A Grievance Redress Mechanism is designed for all stakeholders to be able to voice their concerns (see Annexes 2 and 3), Budget $10,000	

Risk 7: Worker's and Community Health and Safety There are unlikely to be any significant risks to the community and workers during installation and maintenance related to health and safety including but not limited to disruptions to access to properties and businesses. Workers are only likely to be harmed by not taking appropriate hazard identification and mitigation steps.	I = 1 P = 2	**Low**	Community health and safety issues, which may occur with the project are considered to be minor and manageable. The project will ensure that all contractors comply with Uzbekistan's employment and labour laws and regulations. Guidelines for managing work health and safety on-site to be required from contractors as part of the bid process and included in the contracts. Further, the contractors will be required to manage any potential risks through effective codes of practice for the installation of infrastructure, training of workers and good supervision and oversight of mitigation measures as contained within Labour Management Procedures. This will include the provision of PPE etc. The budget for this risk will be borne by the construction component of the project and will be a requirement of the contractual documentation.	

QUESTION 4: What is the overall Project risk categorization?		
Select one (see SESP for guidance)		**Comments**
Low Risk	X	The project has the very limited potential to result in highly restricted spatial and temporal impacts that are reversible. The risks are therefore considered below.
Moderate Risk	☐	
High Risk	☐	

	QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are relevant?		
	Check all that apply		Comments
	Principle 1: Human Rights	☐	As all risks are low, no principles and/or standards are triggered
	Principle 2: Gender Equality and Women's Empowerment	☐	
	1. Biodiversity Conservation and Natural Resource Management	☐	
	2. Climate Change Mitigation and Adaptation	☐	
	3. Community Health, Safety and Working Conditions	☐	
	4. Cultural Heritage	☐	
	5. Displacement and Resettlement	☐	
	6. Indigenous Peoples	☐	
	7. Pollution Prevention and Resource Efficiency	☐	

Final Sign Off

Signature	*Date*	*Description*
QA Assessor	12 October 2021	UNDP staff member responsible for the Project, typically a UNDP Programme Officer. The final signature confirms they have "checked" to ensure that the SESP is adequately conducted.
QA Approver	12 October 2021	UNDP senior manager, typically the UNDP Deputy Country Director (DCD), Country Director (CD), Deputy Resident Representative (DRR), or Resident Representative (RR). The QA Approver cannot also be the QA Assessor. The final signature confirms they have "cleared" the SESP before submittal to the PAC.
PAC Chair	12 October 2021	UNDP chair of the PAC. In some cases, PAC Chair may also be the QA Approver. The final signature confirms that the SESP was considered as part of the project appraisal and considered in the recommendations of the PAC.

Attachment One Social and Environmental Risk Screening Checklist

Checklist Potential Social and Environmental Risks		
Principles 1: Human Rights		**Answer (Yes/No)**
1.	Could the Project lead to adverse impacts on the enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	No
2.	Is there a likelihood that the Project would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups?	No
3.	Could the Project potentially restrict availability, quality of and access to resources or basic services, in particular to marginalized individuals or groups?	No
4.	Is there a likelihood that the Project would exclude any potentially affected stakeholders, particularly marginalized groups, from fully participating in decisions that may affect them?	Yes
5.	Is there a risk that duty-bearers cannot meet their obligations in the Project?	No
6.	Is there a risk that rights-holders cannot claim their rights?	No
7.	Have local communities or individuals, given the opportunity, raised human rights concerns regarding the Project during the stakeholder engagement process?	No
8.	Is there a risk that the Project would exacerbate conflicts among and/or the risk of violence to project-affected communities and individuals?	No
Principle 2: Gender Equality and Women's Empowerment		
1.	Is there a likelihood that the proposed Project would have adverse impacts on gender equality and/or the situation of women and girls?	No
2.	Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	No
3.	Have women's groups/leaders raised gender equality concerns regarding the Project during the stakeholder engagement process and has this been included in the overall project proposal and the risk assessment?	No
4.	Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? *For example, activities that could lead to natural resources degradation or depletion in communities that depend on these resources for their livelihoods and well being*	No
Principle 3: Environmental Sustainability: Screening questions regarding environmental risks are encompassed by the specific Standard-related questions below		
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management		
1.1	Would the Project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services? *For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes*	Yes
1.2	Are any Project activities proposed within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	No
1.3	Does the Project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)	No
1.4	Would Project activities pose risks to endangered species?	No
1.5	Would the Project pose a risk of introducing invasive alien species?	No
1.6	Does the Project involve the harvesting of natural forests, plantation development, or reforestation?	No
1.7	Does the Project involve the production and/or harvesting of fish populations or other aquatic species?	No
1.8	Does the Project involve significant extraction, diversion or containment of surface or groundwater? *For example, construction of dams, reservoirs, river basin developments, groundwater extraction*	No

1.9	Does the Project involve the utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)	No
1.10	Would the Project generate potential adverse transboundary or global environmental concerns?	No
1.11	Would the Project result in secondary or consequential development activities which could lead to adverse social and environmental effects, or would it generate cumulative impacts with other known existing or planned activities in the area? *For example, a new road through forested lands will generate direct environmental and social impacts (e.g. felling of trees, earthworks, potential relocation of inhabitants). The new road may also facilitate encroachment on lands by illegal settlers or generate unplanned commercial development along the route, potentially in sensitive areas. These are indirect, secondary, or induced impacts that need to be considered. Also, if similar developments in the same forested area are planned, then cumulative impacts of multiple activities (even if not part of the same Project) need to be considered.*	No
Standard 2: Climate Change Mitigation and Adaptation		
2.1	Will the proposed Project result in significant greenhouse gas emissions or may exacerbate climate change?	No
2.2	Would the potential outcomes of the Project be sensitive or vulnerable to potential impacts of climate change?	No
2.3	Is the proposed Project likely to directly or indirectly increase social and environmental vulnerability to climate change now or in the future (also known as maladaptive practices)? *For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding*	No
Standard 3: Community Health, Safety and Working Conditions		
3.1	Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?	Yes
3.2	Would the Project pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	No
3.3	Does the Project involve large-scale infrastructure development (e.g. dams, roads, buildings)?	No
3.4	Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)	No
3.5	Would the proposed Project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?	No
3.6	Would the Project result in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)?	No
3.7	Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?	No
3.8	Does the Project involve support for employment or livelihoods that may fail to comply with national and international labour standards (i.e. principles and standards of ILO fundamental conventions)?	No
3.9	Does the Project engage security personnel that may pose a potential risk to the health and safety of communities and/or individuals (e.g. due to a lack of adequate training or accountability)?	No
Standard 4: Cultural Heritage		
4.1	Will the proposed Project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: Projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No
4.2	Does the Project propose utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes?	No
Standard 5: Displacement and Resettlement		

5.1	Would the Project potentially involve temporary or permanent and full or partial physical displacement?	No
5.2	Would the Project possibly result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	No
5.3	Is there a risk that the Project would lead to forced evictions?	No
5.4	Would the proposed Project possibly affect land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?	No
Standard 6: Indigenous Peoples		
6.1	Are indigenous peoples present in the Project area (including the Project area of influence)?	No
6.2	Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples?	No
6.3	Would the proposed Project potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the Project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)? *If the answer to the screening question 6.3 is "yes" the potential risk impacts are considered potentially severe and/or critical and the Project would be categorized as either Moderate or High Risk.*	No
6.4	Has there been an absence of culturally appropriate consultations carried out to achieve FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	No
6.5	Does the proposed Project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No
6.6	Is there a potential for forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?	No
6.7	Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	No
6.8	Would the Project potentially affect the physical and cultural survival of indigenous peoples?	No
6.9	Would the Project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	No
Standard 7: Pollution Prevention and Resource Efficiency		
7.1	Would the Project potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	Yes
7.2	Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?	No
7.3	Will the proposed Project potentially involve the manufacture, trade, release, and/or use of hazardous chemicals and/or materials? Does the Project propose the use of chemicals or materials subject to international bans or phase-outs? *For example, DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Conventions on Persistent Organic Pollutants or the Montreal Protocol*	No
7.4	Will the proposed Project involve the application of pesticides that may have a negative effect on the environment or human health?	No
7.5	Does the Project include activities that require significant consumption of raw materials, energy, and/or water?	No

Attachment Two Complaints Register and Grievance Redress Mechanism

During the installation and implementation phases of any project, a person or group of people can be adversely affected, directly or indirectly due to the project activities. The grievances that may arise can be related to social issues such as disruption of services, and other social and cultural issues. Grievances may also be related to environmental issues such as dust generation, damages to infrastructure due to construction, noise etc.

Should such a situation arise, there must be a mechanism through which affected parties can cordially resolve such issues with the project personnel in an efficient, unbiased, transparent, timely and cost-effective manner. To achieve this objective, a grievance redress mechanism has been included in the UNDP Social and Environmental Screening Procedure (SESP) Template for this project.

The project allows those that have a complaint and/or feel aggrieved by the project to be able to communicate their concern, complaints and/or grievances through an appropriate process. The Complaints Register and Grievance Redress Mechanism set out in this SESP are to be used as part of the project and will provide an accessible, rapid, fair and effective response to concerned stakeholders, especially any vulnerable group who often lack access to formal legal regimes.

While recognising that many complaints may be resolved immediately, the Complaints Register and Grievance Redress Mechanism set out in this SESP encourages mutually acceptable resolution of issues as they arise. The Complaints Register and Grievance Redress Mechanism set out in this SESP has been designed to:

a. be a legitimate process that allows for trust to be built between stakeholder groups and assures stakeholders that their concerns will be assessed fairly and transparently;

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

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

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

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

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

Eligibility criteria for the Grievance Redress Mechanism include:

a. Perceived negative economic, social or environmental impact on an individual and/or group, or concern about the potential to cause an impact;

b. specified kind of impact that has occurred or has the potential to occur; an explanation of how the project caused or may cause such impact; and

c. individual and/or group filing of a complaint and/or grievance is impacted, or at risk of being impacted; or the individual and/or group filing a complaint and/or grievance demonstrates that it has authority from an individual and or group that have been or may potentially be impacted on to represent their interest.

Local communities and other interested stakeholders may raise a grievance/complaint at all times to the Ministry of Emergency Situations of the Republic of Uzbekistan (MES) and Centre of Hydrometeorological Service under the Cabinet of Ministers of Republic of Uzbekistan (Uzhydromet). Affected local communities should be informed about the SESP provisions, including its grievance mechanism and how to make a complaint.

Complaints Register

Where there is a community issue raised, the following information will be recorded:

A complaints register will be established as part of the project to record any concerns raised by the community during construction. Any complaint will be advised to the UNDP, MES and Uzhydromet within 24 hours of receiving the complaint. The complaint will be screened. Following the screening, complaints regarding corrupt practices will be referred to the UNDP for commentary and/or advice along with the MES and Uzhydromet.

Wherever possible, the project team will seek to resolve the complaint as soon as possible and thus avoid escalation of issues. However, where a complaint cannot be readily resolved, then it must be escalated.

A summary list of complaints received, and their disposition must be published in a report produced every six months.

Grievance Redress Mechanism

The Grievance Redress Mechanism has been designed to be a problem-solving mechanism with voluntary good-faith efforts. The Grievance Redress Mechanism is not a substitute for the legal process. The Grievance Redress Mechanism will as far as practicable, try to resolve complaints and/or grievances on terms that are mutually acceptable to all parties.

When making a complaint and/or grievance, all parties must act at all times, in good faith and should not attempt to delay and or hinder any mutually acceptable resolution.

To ensure smooth implementation of the project and timely and effectively addressing of problems that may be encountered during implementation, a robust Grievance Redress Mechanism, which will enable the MES and Uzhydromet to address the grievances of the stakeholders of the project has been established.

All complaints and/or grievances regarding social and environmental issues can be received either orally (to field staff), by phone, in the complaints box or in writing to the UNDP, MES and Uzhydromet. A key part of the grievance redress mechanism is the requirement for the MES and Uzhydromet/PMU to maintain a register of complaints and/or grievances received at the respective project site offices. All complainants shall be treated respectfully, politely and with sensitivity. Every possible effort should be made by the MES and Uzhydromet/PMU and construction contractor to resolve the issues referred to in the complaint and/or grievance within their purview. However, there may be certain problems that are more complex and cannot be solved through project-level mechanisms. Such grievances will be referred to the Grievance Redress Committee. It would be the responsibility of the MES and Uzhydromet to solve these issues through a sound /robust process.

The Grievance Redress Mechanism has been designed to ensure that an individual and/or group are not financially impacted by the process of making a complaint and/or grievance. The Grievance Redress Mechanism will cover any reasonable costs in engaging a suitably qualified person to assist in the preparation of a legitimate complaint and/or grievance. Where a complaint and/or grievance is seen to be ineligible, the Grievance Redress Mechanism will not cover these costs.

Information about the Grievance Redress Mechanism and how to make a complaint and/or grievance will be placed at prominent places for the information of the key stakeholders and beneficiaries and well as made accessible on the UNDP Country Office and project websites (in the local languages). Further, this information will be communicated during the national Inception Workshop and local community level project meetings before the commencement of the project implementation.

The contact address for the project-level grievance redress mechanism will be established within the NIM Partner (EE/MES) following the project approval. The contact address will be communicated to stakeholders before the signature of the project document.

The Gender Specialist (Advisor) in the PMU will be designated as the key officer in charge of the Grievance Redress Mechanism. The Terms of Reference for these positions (as amended from time to time) will have the following key responsibilities:

a. coordinate formation of Grievance Redress Committees before the commencement of constructions to resolve issues;
b. act as the focal point at the PMU on Grievance Redress issues and facilitate the resolution of issues within the PMU;
c. create awareness of the Grievance Redress Mechanism amongst all the stakeholders through public awareness campaigns;
d. assist in redress of all grievances by coordinating with the concerned parties;
e. maintain information on grievances and redress;
f. monitor the activities of MES and Uzhydromet on grievances issues; and
g. prepare the progress for monthly/quarterly reports.

A two-tier Grievance Redress Mechanism structure has been developed to address all complaints and/or grievances in the project. The first trier redress mechanism involves the receipt of a complaint and/or grievance at the local and basin level. The stakeholders are informed of various points of making a complaint and/or grievance (if any) and the PMU collects the complaints and/or grievances from these points regularly and record them. This is followed by coordinating with the concerned people to redress the grievances. The Gender Specialist of the PMU will coordinate the activities at the respective District level to address the grievances and would act as the focal point in this regard. The Chair of the Local Mahalla (community) Committee or in the absence of the latter, any officer given the responsibility of this would coordinate with the Gender Specialist of the PMU, MES and Uzhydromet in redressing the grievances. The designated representatives of the Local Authorities including the members of the two-tier Committees are provided with sufficient training on the procedures of redress to continue such systems in future.

The grievance can be made orally (to the field staff), by phone, in a complaints box or in writing to the UNDP, MES and Uzhydromet. Complainants may specifically contact the Gender Specialist and request confidentiality if they have concerns about retaliation. In cases where confidentiality is requested (i.e. not revealing the complainant's identity to UNDP, MES and Uzhydromet. In these cases, the Gender Specialist will review the complaint and/or grievance, discuss it with the complainant, and determine how best to engage project executing entities while preserving confidentiality for the complainant.

As soon as a complaint and/or grievance is received, the Gender Specialist would issue an acknowledgement. The Chair of the Local Mahalla (Community) Committee receiving the complaint and/or grievance should try to obtain relevant

basic information regarding the grievance and the complainant and will immediately inform the Gender Specialist in the PMU.

The PMU will maintain a Complaint /Grievance Redress register at the Mahalla and District Levels. Keeping records collected from relevant bodies is the responsibility of PMU.

After registering the complaint and/or grievance, the Gender Specialist will study the complaint and/or grievance made in detail and forward the complaint and/or grievance to the concerned officer with specific dates for replying and redressing the same. The Gender Specialist will hold meetings with the affected persons /complainant and then attempt to find a solution to the complaint and/or grievance received. If necessary, meetings will be held with the concerned affected persons /complainant and the concerned officer to find a solution to the problem and develop plans to redress the grievance. The deliberations of the meetings and decisions taken are recorded. All meetings in connection with the Grievance Redress Mechanism, including the meetings of the Grievance Redress Committee, must be recorded. The Gender Specialist for the Grievances Redress Mechanism will be actively involved in all activities.

A Community Project Implementation Committee would be formed to oversee the first tier of the Grievance Redress Mechanism. The Community Project Implementation Committee would include:

a. Chair of the Local Mahalla (Community) Committee;
b. Representative of community initiatives groups;
c. Representative of the Women's Committee;
d. Representative of Youth Organization (Yoshlar Ittifoqi);
e. Project Manager; and
f. Gender Specialist.

The resolution at the first tier will be normally be completed within fifteen (15) working days and the complaint and/or grievance will be notified of the proposed response through a disclosure form. The resolution process should comply with the requirements of the Grievance Redress Mechanism in that it should, as far as practicable, be informal with all parties acting in good faith. Further, the Grievance Redress Mechanism should, as far as practicable, achieve mutually acceptable outcomes for all parties.

Should the grievance be not resolved within this period to the satisfaction of the complainant, the grievance will be referred to the next level of Grievance Redress Mechanism. If the gender officer feels that adequate solutions can be established within the next five working days, the officer can decide on retaining the issue at the first level by informing the complainant accordingly. However, if the complainant requests for an immediate transfer to the next level, the matter must be referred to the next tier. In any case, where the issue is not addressed within twenty (20) working days, the matter is referred to the next level.

Any grievance related to corruption or any unethical practice is to be considered within and subject to the State Law of the Republic of Uzbekistan on Appeals from the physical persons and legal entities [28](#ZRU-445, dd. 11 September 2017, Tashkent), in accordance to which the grievances can be subsequently referred to the several bodies including the General Prosecutor's Office of Uzbekistan, National People's Reception offices (option for virtual offices can be used), mass media, state court system. Within the UNDP, the Office of Audit and Investigation in New York can be used where the grievance cannot be resolved within Uzbekistan.

The Grievance Redress Committee formed at every district level would address the grievance in the second tier. A Grievance Redress Committee will be constituted for every district by the circulars issued by the Regional Governor who would also be the Chairman of the Committee.

The Structure of the committee would be:

a. Chairman – Regional Governor/Khokim;
b. Representative of the regional branch of Women's Committee;
c. Representative of the regional branch of nationwide movement "Yuksalish";
d. Representative of the regional branch of Youth Organization (Yoshlar Ittifoqi); and
e. Representative of Ecological Movement of Uzbekistan.

The Gender Specialist from the PMU will coordinate with the respective Commissioner of Local Government in getting these Committees constituted for each region and get the necessary circulars issued in this regard so that they can be convened whenever required.

The Terms of Reference for the Grievance Redress Committee are:

a. providing support to the affected persons in solving their problems;
b. prioritise grievances and resolve them at the earliest;
c. provide information to the PMU, MES and Uzhydromet on serious cases at the earliest opportunity;
d. Coordinate with the aggrieved person/group and obtain proper and timely information on the solution worked out for his/her grievance; and

[28] https://lex.uz/docs/3336171

e. study the normally occurring grievances and advise PMU, National and District Steering Committee on remedial actions to avoid further occurrences.

The Grievance Redress Committee will hold the necessary meetings with the aggrieved party/complainant and the concerned officer and attempt to find a solution acceptable at all levels. The Grievance Redress Committee would record the minutes of the meeting.

The grievance Redress Committee will communicate proposed responses to the complainant formally. If the proposed response satisfies the complainant, the response will be implemented, and the complaint and/or grievance closed. In cases, where a proposed response is unsatisfactory to the complainant, the Grievance Redress Committee may choose to revise the proposed response to meet the complainant's remaining concerns, or to indicate to the complainant that no other response appears feasible to the Grievance Redress Committee. The complainant may decide to take a legal or any other recourse if s/he is not satisfied with the resolutions due to the deliberations of the three tiers of the grievance redress mechanism.

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

The Stakeholder Response Mechanism offers locally affected people an opportunity to work with other stakeholders to resolve concerns, complaints and/or grievances about the social and environmental impacts of a UNDP project. The Stakeholder Response Mechanism is intended to supplement the proactive stakeholder engagement that is required of UNDP and its Implementing Partners throughout the project cycle. Communities and individuals may request a Stakeholder Response Mechanism process when they have used standard channels for project management and quality assurance and are not satisfied with the response (in this case the project level grievance redress mechanism). When a valid Stakeholder Response Mechanism request is submitted, UNDP focal points at country, regional and headquarters levels will work with concerned stakeholders and Implementing Partners to address and resolve the concerns. Visit www.undp.org/secu-srm for more details. The relevant form is attached at the end of Annex 3.

The Green Climate Fund (GCF) Independent Redress Mechanism (IRM)

The GCF IRM responds to complaints by people who feel they have been adversely affected by GCF projects or programmes failing to implement GCF operational policies and procedures. This includes allegations of a failure to follow adequate environmental and social safeguards. The IRM can also accept requests by developing country National Designated Authorities, or focal points, for the GCF Board to reconsider funding proposals which the GCF has rejected. Detailed information about the GCF IRM is available at https://irm.greenclimate.fund/. The GCF IRM could be contacted at irm@gcfund.org.

Attachment Three Guidance for Submitting a Request to the Social and Environmental Compliance Unit and/or the Stakeholder Response Mechanism

SECU Social & Environmental Compliance Unit SRM Stakeholder Response Mechanism

UNDP Empowered lives. Resilient nations.

Purpose of this form

- **If you use this form, please put your answers in bold writing to distinguish text**
- **The use of this form is recommended, but not required. It can also serve as a guide when drafting a request.**

This form is intended to assist in:

(1) Submitting a request when you believe UNDP is not complying with its social or environmental policies or commitments and you believe you are being harmed as a result. This request could initiate a 'compliance review', which is an independent investigation conducted by the Social and Environmental Compliance Unit (SECU), within UNDP's Office of Audit and Investigations, to determine if UNDP policies or commitments have been violated and to identify measures to address these violations. SECU would interact with you during the compliance review to determine the facts of the situation. You would be kept informed about the results of the compliance review.
and/or

(2) Submitting a request for UNDP "Stakeholder Response" when you believe a UNDP project is having or may have an adverse social or environmental impact on you and you would like to initiate a process that brings together affected communities and other stakeholders (e.g., government representatives, UNDP, etc.) to jointly address your concerns. This Stakeholder Response process would be led by the UNDP Country Office or facilitated through UNDP headquarters. UNDP staff would communicate and interact with you as part of the response, both for fact-finding and for developing solutions. Other project stakeholders may also be involved if needed.

Please note that if you have not already made an effort to resolve your concern by communicating directly with the government representatives and UNDP staff responsible for this project, you should do so before requesting UNDP's Stakeholder Response Mechanism.

Confidentiality If you choose the Compliance Review process, you may keep your identity confidential (known only to the Compliance Review team). If you choose the Stakeholder Response Mechanism, you can choose to keep your identity confidential during the initial eligibility screening and assessment of your case. If your request is eligible and the assessment indicates that a response is appropriate, UNDP staff will discuss the proposed response with you, and will also discuss whether and how to maintain the confidentiality of your identity.

Guidance

When submitting a request please provide as much information as possible. If you accidentally email an incomplete form or have additional information you would like to provide, simply send a follow-up email explaining any changes.

Information about You

Are you...

1. A person affected by a UNDP-supported project?

Mark "X" next to the answer that applies to you: Yes: No:

2. An authorised representative of an affected person or group?

Mark "X" next to the answer that applies to you: Yes: No:

If you are an authorised representative, please provide the names of all the people whom you are representing, and documentation of their authorisation for you to act on their behalf, by attaching one or more files to this form.

3. First name:
4. Last name:
5. Any other identifying information:
6. Mailing address:
7. Email address:
8. Telephone Number (with country code):
9. Your address/location:
10. Nearest city or town:
11. Any additional instructions on how to contact you:
12. Country:

What you are seeking from UNDP: Compliance Review and/or Stakeholder Response

You have four options:

- Submit a request for a Compliance Review;
- Submit a request for a Stakeholder Response;
- Submit a request for both a Compliance Review and a Stakeholder Response;
- State that you are unsure whether you would like Compliance Review or Stakeholder Response and that you desire both entities to review your case.

13. Are you concerned that UNDP's failure to meet a UNDP social and/or environmental policy or commitment is harming, or could harm, you or your community? Mark "X" next to the answer that applies to you: Yes: No:
14. Would you like your name(s) to remain confidential throughout the Compliance Review process?

Mark "X" next to the answer that applies to you: Yes: No:

If confidentiality is requested, please state why:

Would you like to work with other stakeholders, e.g., the government, UNDP, etc. to jointly resolve a concern about social or environmental impacts or risks you believe you are experiencing because of a UNDP project?

Mark "X" next to the answer that applies to you: Yes: No:

15. Would you like your name(s) to remain confidential during the initial assessment of your request for a response?

Mark "X" next to the answer that applies to you: Yes: No:

If confidentiality is requested, please state why:

16. Requests for Stakeholder Response will be handled through UNDP Country Offices unless you indicate that you would like your request to be handled through UNDP Headquarters. Would you like UNDP Headquarters to handle your request?

Mark "X" next to the answer that applies to you: Yes: No:

you have indicated yes, please indicate why your request should be handled through UNDP Headquarters:

17. Are you seeking both Compliance Review and Stakeholder Response?

Mark "X" next to the answer that applies to you: Yes: No:

18. Are you unsure whether you would like to request a Compliance Review or a Stakeholder Response? Mark "X" next to the answer that applies to you:
Yes: No:

Information about the UNDP Project you are concerned about, and the nature of your concern:

19. Which UNDP-supported project are you concerned about? (if known):
20. Project name (if known):
21. Please provide a short description of your concerns about the project. If you have concerns about UNDP's failure to comply with its social or environmental policies and commitments and can identify these policies and commitments, please do (not required). Please describe, as well, the types of environmental and social impacts that may occur, or have occurred, as a result. If more space is required, please attach any documents. You may write in any language you choose
22. Have you discussed your concerns with the government representatives and UNDP staff responsible for this project? Non-governmental organisations?

Mark "X" next to the answer that applies to you: Yes: No:

If you answered yes, please provide the name(s) of those you have discussed your concerns with

Name of Officials You have Already Contacted Regarding this Issue:

First Name	Last Name	Title/Affiliation	Estimated Date of Contact	Response from the Individual

23. Are there other individuals or groups that are adversely affected by the project?

Mark "X" next to the answer that applies to you: Yes: No:

24. Please provide the names and/or description of other individuals or groups that support the request:

First Name	Last Name	Title/Affiliation	Contact Information

Please attach to your email any documents you wish to send to SECU and/or the SRM. If all of your attachments do not fit in one email, please feel free to send multiple emails.

Submission and Support

To submit your request, or if you need assistance please email: project.concerns@undp.org

Annex H: Stakeholder Engagement Plan

To transform the current EWS in Uzbekistan from a reactive system to one based on preventive warnings ahead of an event, it is necessary to:

i) improve the efficiency in collecting and generating/forecasting weather and climate information; and

ii) develop methods and operational systems which translate weather/climate information/forecasts into actionable warnings and disseminate them to users who understand their content and how best to react.

This work will be done through cooperation and coordination with the following key national partners:

- the Ministry of Emergency Situations of Uzbekistan (MES)– national implementing partner ofthe project
- the Centre for Hydrometeorological Services of Uzbekistan (Uzhydromet) - the responsible party of the project.

The proposed MHEWS project will contribute to the efforts of the Government in tackling the risks associated with an increase in occurrences of dangerous hydrometeorological phenomena, accompanied by social and economic damages, and sometimes human losses. To ensure the country's preparedness and establishing preventing measures for adaptation to changing condition, a State Emergency Warning and Response System (SEWRS) was established in 2011, combining the administrative bodies, resources and facilities of the country. SEWRS coordinates the bodies of administration, forces and resources of the state and public service bodies, local authorities, and other organizations empowered to resolve the matters of protecting population and territories from emergencies, and set to organize and implement actions on warning and liquidating emergencies, in case of emerging threat ensuring the safety of the population, protecting the environment and reducing the damage to the state economy.

The members of SEWRS will also be co-partnering inter-alia with the proposed project, among which are the following:

- The Ministry of Health (MOH) of Uzbekistan
- The Ministry of Water Resources (MWR) of Uzbekistan
- The Ministry of Agriculture of Uzbekistan (MA)
- The State Committee for Ecology and Environmental Protection of Uzbekistan (SCEEP)
- The State Committee on Land Resources, Geodesy, Cartography and State Cadaster (GKZGDK) of Uzbekistan
- The Ministry of Higher and Secondary Special Education of the Republic of Uzbekistan (MHSSE)
- The Ministry of Public Education of the Republic of Uzbekistan (MPE)
- The Ministry of Defense of the Republic of Uzbekistan
- The Ministry of Economic Development and Poverty Reduction of the Republic of Uzbekistan (MOEI)
- The Ministry of Finance of the Republic of Uzbekistan
- The State Customs Committee of the Republic of Uzbekistan
- The State Committee on Geology and Mineral Resources of Uzbekistan
- The Uzbek Agency of Communication and Information
- The National TV and Radio Company of Uzbekistan,
- The Uzbek Agency for Press and Information

The proposed project will also engage national and regional authorities and institutions, local communities, and mahala/community members. The project puts a strong focus on community engagement, training and "last-mile" communication solutions, which will contribute to improved user interaction and ownership by local communities and key stakeholders and further promote the sustainability of this project into the long- term.

In Uzbekistan, the work with the population on community levels is going through various sources including the state governing institutions like Khokimiyats (regional or city majors' offices), via regional branches of Uzhydromet or MES, who are also closely connected with Khokimiyats. But in addition, at the local community level, the work on climate adaptation and provision of risk-informed solutions to the population, Mahalla committees and their initiative groups serve as an entry point to people on the ground. Mahalla committees are non-government community organizations though closely affiliated with the government that support local communities and people to resolve various issues associated with socio-economic development, family problems, access to basic infrastructure (water, electricity), access to jobs, education, etc. People in rural communities are the most vulnerable to climate risks and the project will work with mahalla representatives and local authorities to ensure that no one is left behind and the most remote communities including the mountainous areas under risk are reached.

MES in its turn with its leading role within the SEWRS works with communities on awareness-raising to potential risks associated with natural hazards and disasters, according to the Resolution of the Cabinet of Ministers of Uzbekistan #754 (dd. 09/09/19) the country has established a Regulation on building capacity and awareness-raising of the population of Uzbekistan at all levels including the academic institutions and communities. The project will support national counterparts in this process through focused awareness-raising and capacity building activities.

There are several international development organizations and IFIs that promote climate, smart agriculture and disaster risk reduction initiatives. They include Red Crescent Society, FAO, UNICEF, GIZ, Agence Francaise de Developpement, EU delegation, Embassy of Japan, JICA, KOICA. WHO, Swiss Development Cooperation, Central Asia Regional Economic Cooperation (CAREC), World Bank – the project will establish a cooperation platform with them depending on the priorities and mandates. The project will also cooperate with WMO to ensure alignment with reporting to the Global Climate Observing System (GCOS), Global Basic Observing Network (GBON) and Global Telecommunication System (GTS). A connection will then be established between the Forum and WMO's Regional Climate Fora operating in Europe (NEACOF) as well as Asia (FOCRAII).

Concerning public awareness and education, there are some materials prepared for secondary school on Climate box which raises awareness of school children on risks associated with climate change, though the education system of the country does not integrate special school programmes or educational materials on climate issues. Only MES is working closely with the population through mahallas and schools to promote preparedness of the population to potential threats like earthquakes, but no comprehensive education programmes exist in the country. The project also aims to build capacity in the area of awareness and education and to establish such programs within the country and local communities.

The project preparatory phase included extensive consultations with state authorities including the Ministry of Emergency Situations of Uzbekistan and its regional branches, Uzhydromet and its regional branches, regional government including the Khokimiyats of Andijan, Namangan and Ferghana regions who are the key partners and recipients of the project results. The Ministry of Emergency Situations jointly with Uzhydromet and the MIFT as an NDA were coordinating the process of project design. From MES the First Deputy Minister was in charge of the coordination of the project proposal preparatory process further transferring this function to the Head of the International Department of MES. From Uzhydromet the process of proposal development was coordinated by the First Deputy Director General of Uzhydromet.

- During the internal coordinated consultations among MIFT, Uzhydromet and MES it was agreed that MES as the main coordinating entity for SEWRS, responsible for the collection of data from the field into one system: CMC - will be the main implementing partner, while Uzhydromet will be the main responsible party of the project. MES will be responsible for establishing a functional Multi-Hazard Early Warning System based on innovative impact modelling, risk analyses, effective regional communication and community awareness; this will include integration and development of ICT systems to use the hydro-meteorological hazards, and combining of the latter with vulnerability data to identify risks and provide information for planning and mitigating their impacts.
- Uzhydromet will be responsible for the work related to upgrading and modernization of the meteorological and hydrological Observation System; Upgrading national capacity to store, process and develop hazard products, as well as to communicate hydrometeorological data to regional divisions; retraining and advanced training of Uzhydromet staff on monitoring and forecasting technologies and procedures.

Other agencies and ministries stated above will be important stakeholders depending on their mandates. The MoH will be involved in building the capacity of the population on preventive measures in situations related to natural disasters, safety and risks to health. MWR will be involved in activities related to water management and associated risks in the target areas, while MoA will be engaged on the issues related to potential threats from climate-related hazards to agriculture and local farmers. MPE and MHSSE will be involved in the development of education materials and capacity building of the population with a special focus on youth. For awareness-raising among the population, local communities the project will involve National TV and Information agencies to ensure that targeted information reaches its audience.

On grass root and community levels, mahalla level UNDP has extensive experience of working with community initiative groups and mahalla leaders. This experience will be used to ensure that the local population are fully engaged in the project implementation and realize the importance of the project results for the target areas and the people; this engagement and interest and contribution through national practices of "Hashar", engagement and contribution of people to the process, will ensure the ownership and sustainability of the project results. Local NGOs and women's

association having experience at grass root levels will be engaged in community-level participatory risk planning and management.

The project will also facilitate through Activity 3.3. establishment of Community Forums engaging target communities and representatives of vulnerable groups to support awareness-raising on DRR and EWSs issues and ensure the involvement of local communities in planning risk reduction measures at the earliest stage and increase their ownership of the process. The Community Forum will be established to enable community dialogue and mobilization. Such forum will be organized at least once a year promoting information exchange on DRR issues and EWS approaches and benefits for communities, identifying lessons learnt, successes and impediments. Through this Forum the project will organize community-based competitions and awards on advocacy around structural and non-structural measures with the purpose of their inclusion. Participants of the Forum might also represent local government, academic institutions, NGOs, CBOs, etc.

The ***Project Board*** will serve as a major institutional mechanism for key stakeholder engagement. It will be composed of high to mid-level representatives of the MES and Uzhydromet, UNDP, all responsible parties and, regional authorities, Khokimiyats and target community representatives.

Multi-stakeholder Technical Advisory Working Groups (TAWG) will also be established to provide inputs to and endorsement of the design and quality of the project outputs. The TAWG members will represent the government, private sector, academia and civil society to provide guidance and technical advice on the project.

Local stakeholders and community members have a key role in implementing and monitoring the project. It is planned to work with the most vulnerable communities to establish community-based multi-hazard early warning systems there and enhance communities' resilience to climate-induced natural hazards. Target communities will be selected based on climate vulnerability of communities' activeness of mahallas and initiative community groups, history of community engagement and development, etc. Community members from selected communities will be mobilized to form consultative community groups and will be engaged in establishing and operating MHEWSs there as well as in participatory planning and implementation of the project activities.

The project will target the most vulnerable groups including women and youth under the third component on strengthening climate services and disaster communication to end-users. Work with women will be done jointly with the Women Committee and Mahalla committees who have full awareness of the needs of women and community challenges. "Yoshlar Ittifoqi" and other youth associations working at the regional level will be engaged to raise interest among youth on issues of climate change and associated risks; competitions and climate change specific clubs will be organized among youth to raise their interest and participation.

Letters of Agreements and project-specific documents specifying concrete activities/sub-activities will be signed with MES and Uzhydromet that will create a legal basis for the participation of selected government authorities in project activities. Other key means for stakeholder engagement will be projected board meetings, working groups meetings, stakeholder workshops, training/ToT, communication in mass media including social media like Facebook, Twitter, etc.

During the inception phase of the project, the MES and Uzhydromet working together with UNDP, will consult with all stakeholders, including vulnerable community members, CBOs/NGOs and local government, etc. and facilitate an understanding of the roles, functions, and responsibilities within the project's decision-making structures, reporting and communication lines, and conflict resolution mechanisms. On basis of regional authorities/Khokimiyats, there will be a local coordination committee established to ensure coordination of work of the project at the local level, so responsible focal points of all responsible parties are assigned. At such review committees, the project Logic Framework (indicators, means of verification, assumptions) will be reviewed and the quarterly and annual plans will be refined engaging the communities from the targeted districts. The stakeholders will also be engaged during the mid-term and final evaluations to assess the progress of the project and enable adaptive project management in response to the needs and priorities of the communities.

Below is the detailed stakeholder engagement plan, with an indication of outputs, activities, stakeholders, their roles and means of their engagement.

Output	Activity	Stakeholders	Stakeholder Role	Means of Stakeholder Participation
Output 1: Upgraded hydro-meteorological observation network, modelling and forecasting capacities	1.1 Upgrading and modernization of the meteorological and hydrological Observation System. including upgrading/automation of 25 meteorological observation stations and equipment (software, workstations etc.), modernizing the ground-based infrastructure (telemetry processing, hydrogen generators etc.) for 2 upper-air stations, installing 2 online C-band doppler radar systems and upgrading of 90 hydrological stations, establishing benchmarks and up to date equipment for instrument calibration (vacuum chambers, mobile laboratory etc.).	1. **Uzhydromet**	Responsible party	Participation in the project board, signing letter of agreement and implementing activities within this framework, stakeholder consultations/workshops/trainings /ToTs
		2. Regional branches of Uzhydromet	Responsible for installation and O/M of H.M. network	Participation in project board, participation in TWG, stakeholder consultations/workshops/trainings /ToTs
	1.2 Upgrading national capacity to store, process and develop hazard products, as well as to communicate hydrometeorological data to regional divisions. This involves establishment of an the operations centre, ICT servers and networking equipment to integrate data streams (hydrometeorological and satellite-based observations) and automate processes and analyses (including hazard forecasts).	**1. Uzhydromet**	Responsible party	Participation in the project boar, stakeholder consultations/workshops/trainings /ToTs
		2. Regional branches of Uzhydromet	Responsible party	Participation in project board, participation in TAG, stakeholder consultations/workshops/trainings /ToTs
Output 1: Upgraded hydro-meteorological observation network, modelling and	1.3 Retraining and advanced training of Uzhydromet staff on monitoring and forecasting technologies and procedures; refresher courses and advanced	**1. Uzhydromet**	Responsible party	Participation in the project board, stakeholder consultations/workshops/trainings /ToTs
		2. Regional office of Uzhydromet	Key stakeholder for work in the filed	Participation of project board, participation in TWG, stakeholder consultations/workshops/trainings /ToTs

forecasting capacities	training will be provided for new software and equipment, including the introduction of new methods for the analysis and prediction of hydrometeorological important variables and climate hazards	**3. MHSSE** **4. MPE**	Data providers, providers of expert's opinions, beneficiaries	Participation in TWG, stakeholder consultations/workshops/trainings /ToRs
		5. National NGOs	Data providers, providers of expert's opinions, beneficiaries	Participation in TWG, stakeholder consultations/workshops/trainings /ToRs
		6. Academic institutions	Data providers, providers of expert's opinions, beneficiaries	Participation in TWG, stakeholder consultations/workshops/trainings /ToRs
Output 2. A functional Multi-Hazard Early Warning System is established based on innovative impact modelling, risk analyses, effective regional communication and community awareness	2.1 Developing and installing a modernised and efficient system for assessing climate risks based on dynamic information on both hazards and vulnerabilities, including socioeconomic risk models for decision making and prioritization of resilience building long-term/future investments.	**1. MES**	Implementing partner	Co-chairing in the project board, signing letter of agreement, stakeholder consultations/workshops/trainings /ToTs
		2. MOEI	Stakeholder/ beneficiary	Participation in project board and TWG, stakeholder consultations/workshops/trainings /ToRs
		3.Regional Governments/ Khokimiyats	Stakeholder/ beneficiary	Participation in project board and TWG, stakeholder consultations/workshops/trainings /ToRs
		4. Mahalla committees	Stakeholder/ beneficiary co-funding the activity	Participation in project board and TWG, stakeholder consultations/workshops/trainings /ToRs
		5. Women/ youth associations	Data providers, providers of expert's opinions, beneficiaries	Participation in TWG, stakeholder consultations/workshops/trainings /ToRs
		6. National NGOs	Data providers, providers of expert's opinions, beneficiaries	Participation in TWG, stakeholder consultations/workshops/trainings /ToRs
	2.2 Developing and introducing technical guidance, institutional and coordination frameworks to increase the efficiency of: i) data collection and archiving ii) hazard mapping and modelling; iii) risk assessment iv) dissemination of information to RCMCs	**1. MES**	Implementing partner	Participation in the project board, signing letter of agreement and implementing activities within this framework stakeholder consultations/workshops/trainings /ToTs
		2. Central CMC	Responsible party for establishment and O/M of MHEWS	Participation in project board, participation in TWG, stakeholder consultations/workshops/trainings /ToTs
		3. Uzhydromet	Responsible party	Participation in project board, signing letter of agreement and implementing activities within this framework, participation in TWG, stakeholder consultations/workshops/trainings /ToTs

	2.3 Designing and implementing a system for information dissemination to RCMCs and area specific mobile alerts including an information visualization system for RCMCs with software	**1. MES**	Implementing partner	Participation in project board, signing letter of agreement and implementing activities within this framework, participation in stakeholder consultations/workshops/trainings /ToTs
		2. Uzhydromet	Responsible party	Participation in project board, signing letter of agreement and implementing activities within this framework, participation in TWG, stakeholder consultations/workshops/trainings /ToTs
		3. Satellite/ mobile companies		Participation in TWG, stakeholder consultations/workshops/trainings /ToTs
Output 3. Strengthened climate services and disaster	3.1 To establish National Framework for Climate Services for Uzbekistan, the project undertaken a baseline assessment of climate services in Uzbekistan followed by multi-stakeholder consultations and the participatory development of the country's NFCS concept and Action Plan	**1. Uzhydromet**	Responsible party	Participation in the project board stakeholder consultations/workshops/trainings
		2. WMO	Responsible partners/Global platform	Participation in project board, stakeholder consultations/workshops/trainings /ToTs
		3. Group of international and national NGOs	Responsible party/contractor for supervision/ facilitation of CBMHRM processes	Signing contract with UNDP and implementation of activities under this contract stakeholder consultations/workshops/trainings /ToTs
		4. Local governments	Data providers, provision of expert's opinion	Stakeholder consultations/workshops/trainings /ToTs
	3.2 To establish a sustainable value chain-based business model for disaster-related information and agree with the key stakeholders, and the necessary legal and organizational changes to be outlined and planned on the national (adjustment of legislation) and the inter-institutional levels	**1. MES**	Implementing partner	Participation of project board, signing letter of agreement and implementing activities within this framework, stakeholder consultations/workshops/trainings .
		2. Uzhydromet	Responsible party	Participation of project board, signing letter of agreement and implementing activities within this framework, participation in TWG, stakeholder consultations/workshops/trainings /ToTs, media/public information campaigns
		3. MIFT	Data providers, providers of experts' opinions, beneficiaries	Participation of project board, Participation in stakeholder consultations/workshops/trainings /ToTs, media/public information campaigns

		4. MOEI	Beneficiaries	Participation in stakeholder consultations/workshops/trainings /ToTs, media/public information campaigns
		5. MOF	Participation in outreach and information campaigns	Participation in stakeholder consultations/workshops/trainings /ToTs, media/public information campaigns
		6. Education and academic institutions	Participation in education activities	Participation in stakeholder consultations/workshops/trainings /ToTs, education programs
	3.3. Strengthening disaster-related communication and interaction with end users. Within the 15 RCMCs, outdoor communication boards will be set up in identified communities at highest risk to alert and inform the population in real-time about threats or emergencies	**1. MES**	Implementing partner	Participation in project board, signing letter of agreement and implementing activities within this framework stakeholder consultations/workshops/trainings
		2. Uzhydromet	Responsible party	Participation in project board, signing letter of agreement and implementing activities within this framework, participation in TWG, stakeholder consultations/workshops/trainings /ToTs
		3. Target communities	Data providers, providers of experts' opinions/feedback, beneficiaries	Participation in stakeholder consultations/workshops, monitoring of construction activities, participation at Community Forums annually
		4. Red Crescent Society	Responsible party	Participation in stakeholder consultations/workshops
		5. Mass media	Support in development distribution materials.	Participation in stakeholder consultations/workshops, monitoring of construction activities, support with media/public information campaigns
		6. Private sector	Input and guidance on business model development	Participation in stakeholder consultations/workshops

Annex I: Gender Analysis and Action Plan

Enclosed separately.

Gender Assessment SAP022
https://www.greenclimate.fund/sites/default/files/document/sap022-gender-assessment.pdf

Gender Action Plan:
https://www.greenclimate.fund/document/gender-action-plan-sap022-enhancing-multi-hazard-early-warning-system-increase-resilience

Annex J: UNDP Risk Log

#	Description	Date Identified	Type	Impact & Probability	Countermeasures/ Mngt Response	Owner	Submitted Updated by	Last update	Status
1	Cost of operation and maintenance (O&M) cannot be sustained by the Government of Uzbekistan	2020	Technical and operational	I = Medium P = Low I = 3 P = 1	The financial and operational risks to the project are considered low given the strong commitment of the Government of Uzbekistan (GoU) to implement the MHEWS and to cover the costs of operations and maintenance of the system. GoU is committed to ensuring the adequate operation and maintenance of the new observation and data processing equipment after the conclusion of the project, as provided in official decrees made by GoU, and through the pledge of co-financing for this purpose. Furthermore, to mitigate the risk, the project will develop a value-chain based business model to identify sustainable delivery options for disaster-related services, to increase revenue generation capacity for Uzhydromet and MES in the long run. Lastly, the project investment will favour innovative systems with reduced operation and maintenance costs, as well as ensuring fitness for purpose and cost-effectiveness.	Project Management Implementing Partner – MES Beneficiary - Uzhydromet	UNDP CO	2021	Ongoing
2	Poor adoption and use of MHEWS	2020	Technical and operational	I = Medium P = Low I = 3 P = 1	The activities and equipment have been identified through extensive consultations with national executing agencies and are based on existing MHEWS related work and identified gaps in the current system. The GoU and MES require an improved MHEWS to fulfil their roles and mandates. Uzhydromet	Project Management Implementing Partner – MES Beneficiary - Uzhydromet	UNDP CO	2021	Ongoing

					will be a key executing entity in the project which is based on strong country demand. The enhancement of interaction between producers and end-users of information and their capacities is at the core of project design. By creating improved delivery systems for MHEWS, targeting identified user needs, MHEWS are made more relevant to the users and stimulate needs for more relevant, accurate and timely services. This is achieved by improved local access through RCMCs and greater involvement of relevant organizations (sector organizations, civil society, sector organizations, user groups). Furthermore, modern observation equipment will provide users with high quality, real-time data with greater efficiency of information generation, and enable a paradigm shift from disaster response to prevention.				
3	**Limited institutional cooperation hampers effective MHEWS development**	**2020**	**Governance**	**I = Medium** **P = Medium** **I = 3** **P = 3**	Improved data and information sharing will be facilitated through the development of multiple hazard forecasts and the creation of a central data and risk analysis platform, enabling the production of high-quality information and creating greater opportunities for synergies between actors in the MHEWS chain. Additionally, activity 2.2 will create protocols and technical guidance to ensure that institutions share required data. An open data policy for public good MHEWS (WMO resolution 4055),	Project Management Implementing Partner – MES Beneficiary - Uzhydromet	UNDP CO	2021	Ongoing

					will be pursued to ensure data is accessible to the public.				
4	**Damage to observation equipment due to extreme weather events and hazards.**	**2020**	**Technical and operational**	**I = Medium** **P = Medium** **I = 3** **P = 3**	Uzhydromet has a long experience of placement of field equipment, as well as managing the O&M of such equipment when damaged. Possible mitigation measures include the use of robust observation systems that make optimal use of remote sensing techniques where possible, and the use of real-time data transmission to prevent loss of data in case of equipment failure and to continuously monitor the status of the equipment.	Project Management Beneficiary - Uzhydromet	UNDP CO	2021	Ongoing
5	**Anti-Money Laundering/Countering the Financing of Terrorism Practices**	**2020**	**Reputational**	**I = Low** **P = Low** **I = 1** **P = 1**	The project's core activities present limited risk concerning money laundering and terrorist financing. The AE has conducted a capacity assessment of the implementing partner (MES) and noted that there is no evidence/history of exposure to money laundering and terrorist financing and no risks were identified in this regard. Nevertheless, in the unlikely event that risks do arise, the AE assures that it has in place adequate anti-money- laundering and countering the financing of terrorism systems and controls to address related issues as they occur in line with its policies and procedures. However, given the extent of procurement required to execute various project strategy, there is a low risk of conflicts with vendors and reputational risks vis-à-vis local beneficiaries. AE will provide procurement support to the EE, guided by the UNDP policies and	Project Management	UNDP CO	2021	Ongoing

					procedures (POPP) and fiduciary standards. AE will ensure that at the project level, the key stakeholders (namely, the AE, and EE) are effectively guided by the full range of extant anti-bribery, graft and corruption national laws and regulations. A two-tier Grievance Redress Mechanism will be established for the project guided by the UNDP Social and Environmental Safeguards policies to address potential reputational risks and complaints. In light of the minimal risk posed by the project, as well as the combined effect of the risk mitigation strategy of the AE, the overall compliance risk is deemed as low.				

Annex K: Letter of Agreement with MES Republic of Uzbekistan for UNDP Support Services

STANDARD LETTER OF AGREEMENT BETWEEN UNDP AND THE MINISTRYMINISTRY OF EMERGENCY SITUATIONS OF THE REPUBLIC OF UZBEKISTAN FOR THE PROVISION OF SUPPORT SERVICES

UNDP project "Enhancing Multi-Hazard Early Warning System to increase resilience of Uzbekistan communities to climate change-induced hazards" (project# 00120487)

Dear Mr. Tursinhan Xudayberganov,

1. Reference is made to consultations between officials of the Ministry of Emergency Situations of *the Republic of Uzbekistan (*hereinafter referred to as "the MES") and officials of UNDP with respect to the provision of support services by the UNDP country office for nationally managed programmes and projects. UNDP and the MES hereby agree that the UNDP country office may provide such support services at the request of the MES. as described in the project document between the UNDP and the MES for the joint project "Enhancing Multi-Hazard Early Warning System to increase resilience of Uzbekistan communities to climate change-induced hazards" (Project # **00120487**) (hereinafter referred to as "the Project"), which will be implemented by the MES.

2. The UNDP country office may provide support services for assistance with reporting requirements and direct payment. In providing such support services, the UNDP country office shall ensure that the capacity of the MES-designated institution is strengthened to enable it to carry out such activities directly. The costs incurred by the UNDP country office in providing such support services shall be recovered from the administrative budget of the project.

3. The UNDP country office may provide, at the request of the designated institution, the following support services for the activities of the programme/project:

(a) Procurement of goods and services;

b. Financial support services;

c. HR/personnel management services;

d. Administration and logistics services

4. The procurement of goods and services and the recruitment of the Project personnel by the UNDP country office shall be in accordance with the UNDP regulations, rules, policies and procedures. Support services described in paragraph 3 above shall be detailed in an annex to the project document, in the form provided in the Attachment hereto. If the requirements for support services by the country office change during the life of the programme/project, the annex to the project document will be revised with the mutual agreement of the UNDP Resident Representative and the MES.

5. The relevant provisions of the Standard Basic Assistance Agreement (SBAA) between the MES of Uzbekistan and the UNDP, signed by Parties on 10th June 1993, including the provisions on liability and privileges and immunities, shall apply to the provision of such support services. The MES shall retain overall responsibility for the nationally managed Project through the MES. The responsibility of the UNDP country office for the provision of the support services described herein shall be limited to the provision of such support services detailed in the annex to the project document.

6. Any claim or dispute arising under or in connection with the provision of support services by the UNDP country office in accordance with this letter shall be handled pursuant to the relevant provisions of the SBAA.

7. The manner and method of cost-recovery by the UNDP country office in providing the support services described in paragraph 3 above shall be specified in the annex to the project document.

9. Any modification of the present arrangements shall be affected by the mutual written agreement of the parties hereto.

10. If you are in agreement with the provisions set forth above, please sign and return to this office two signed copies of this letter. Upon the signature, this letter shall constitute an agreement between the Ministry of Emergency Situations of the Republic of Uzbekistan and UNDP on the terms and conditions for the provision of support services by the UNDP country office for the Project.

For the Ministry of Emergency Situations of Republic of Uzbekistan:

Ministry of Emergency Situations of the Republic of Uzbekistan (MES)

Date: 12 October 2021

On behalf of UNDP:

Ms. Matilda Dimovska
Resident Representative
UNDP Uzbekistan

Date: 12 October 2021

Annex I

DESCRIPTION OF UNDP COUNTRY OFFICE SUPPORT SERVICES

1. Reference is made to consultations between the MES and UNDP with respect to the provision of support services by the UNDP country office for the nationally implemented project *Enhancing Multi-Hazard Early Warning System to increase resilience of Uzbekistan communities to climate change-induced hazards*, "the Project".

2. In accordance with the provisions of the letter of agreement signed on [_____] and the project document, the UNDP country office shall provide support services for the Project as described below.

3. Support services to be provided:

Estimates are based on 2021 average cost of staff involved in transactions and time required for respective actions		
HR/Personnel management services		
Staff selection and recruitment process: advertising, short listing, interviewing (per case)	Estimated 8 personnel SC hired in 1,2 years (subject for personnel turnover) (8 personnel (SCs) x USD 606.98)	USD 4,855.84
HR & Benefits Administration & Management (Service Contract - SC) - the issuance of a contract, and - again, at separation)	One time per staff (8 personnel x USD 206.96)	USD 1,655.68
Recurrent personnel management services: Payroll & Banking Payroll validation, disbursement, Performance evaluation Extension, promotion, entitlements, leave monitoring	(annual fee, per staff, per calendar year) (8 personnel x USD 457.31 times 6 years)	USD 21,950.88
Assistance with issuance of ID cards	Per person (8 personnel x USD 39.01)	USD 312.08
Finance services		
Transaction processing (voucher creation, approval, payment);	i) Payment process (USD 39.02 USD x 192 times per 6 years)	USD 44,951.04
Issuance of debit cards in UZS	One time 52 times x USD 7.0	USD 364
Admin/Travel services		
Travel Management (Simple) including: - Travel cost estimates (including airline quotes DSA estimates) (25%) - Travel request or authorization (40%) - Travel claims or F10 settlement (35%)	Per trip USD 66.50 x 90 trips	USD 5,985
Visa support	Per person (10 international experts x USD 46.95)	USD 469.5
Letters/NVs	Per item 50 item x USD 28.96	USD 1,448
Procurement of consultants, goods and services		
Procurement process involving local CAP (and/or ITB, RFP requirements) including[29]:	USD 545.78 x 6 times x 3 years	USD 9,824.04

[29] UPL as of 1st June 2021, Uzbekistan is mid low cost country

-Identification & selection (50%) -Contracting/issue purchase order (25%) -Follow-up (25%)		
Procurement not involving local CAP 7,10,11 (low value procurement) including: - Identification & selection (50%) - Issue purchase order (25%) - Follow-up (25%)	USD 217.80 x 10 times per 6 years	USD 13,068
Vendor profile only	(20.66 USD X 203 times during 6 years)	USD 4,193.98
Consultant recruitment	(234.26 USD X 22 times per 6 years)	USD 30,922.32
	Total:	**USD 140,000**

Description of functions and responsibilities of the parties involved shall be regulated as specified in the project document.

Annex L: Partner Capacity Assessment

Enclosed separately: PCA MES, PCA Uzhydromet

Annex M: UNDP Project Quality Assurance Report

The report can be accessed via the link below: https://intranet-apps.undp.org/ProjectQA/Forms/Design?fid=8689&year=2021&ou=UZB&pid=00120487&fltr=PROJECT

Annex N: Monitoring and evaluation plans

Please fill in this Monitoring Plan and attach here also the M&E Plan from the project design stage (i.e. one submitted to the GCF before approval by its Board.) These plans will guide monitoring and evaluation at the project level for the duration of project implementation.

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[30]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
Project objective from the results framework	***Indicator 1*** *Total number of direct and indirect beneficiaries; Number of beneficiaries relative to the total population*	Direct beneficiaries: 5.630 million males, 5.666 million females, 11.296 million people (34.9% of the total population) Indirect beneficiaries: 16.143 million males, 16.247 million females, 32.39 million people (100% total population) (EOP)	The direct beneficiary of this project is the population currently living in high-risk areas of Uzbekistan (people exposed to one or more climate hazards, estimated to be 34% of the population); Indirect beneficiary of this project is the entire population of Uzbekistan as the project will operationalize a nation-wide system for improved forecasting and hazards early warning.	Independent project reviews; Impact Survey	Mid-term and End of Term	UNDP, Uzhydromet, MES, PMU	National reports and statistics; Community- and regional-level focus group survey Gender-sensitive field surveys in priority districts. Review of climate monitoring database Functioning RCMCs and coverage	The occurrence of major extreme events (e.g. seismic) do not deviate historic trajectory
	Indicator 2 *Change in expected losses of lives and economic assets (US$)*	50% lives (average of 4) saved from climate-induced hazards per annum	Decrease in expected losses of lives and economic assets	Independent project reviews; Impact Survey	Mid-term and End of Term	UNDP, Uzhydromet, MES, Regional and local governments,	National Emergency Situation Report issued by MES; national and local government	The occurrence of major extreme events (e.g.seismic) does not deviate historic trajectory.

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

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[30]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	due to the impact of extreme climate-related disasters in the geographic area of the GCF intervention	3% or 9.37 million USD expected reduction in economic damages from various hazards (EOP)				PMU	statistics; PDNA (where available) Focused group survey	
Project Outcome	***Indicator 3*** *Number of technologies and innovative solutions transferred or licensed to promote climate resilience as a result of Fund support*	11 technologies/ solutions; status: introduced/in use Including: 5 Hydrometeorological observation technologies upgraded and operational: AWS; automatic streamflow measurements; upper-air stations; radars; centralised database for meteorological measurements 4 technologies for multi-hazard risk analysis,		Independent project reviews; Impact Survey Data collected annually by Uzhydromet and MES	Mid-term and End of Term	UNDP, Uzhydromet, MES, PMU	Project reports Site visits Central database owned by Uzhydromet for hydro metrological monitoring data, and an integrated impact-based risk information and knowledge database operated by MES, hazard forecasting, monitoring and risk assessment products	Relevant government agencies cooperate on the implementation of the MHEWS and data management Inter-agency data available and accessible as inputs to the knowledge management platform Continued government support and commitments to secure adequate O/M of monitoring equipment, relevant software and databases during the project implementation and afterwards

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[30]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		forecasting and impact-based MHEWS: socio-economic risk and vulnerability model; operational mudflow modelling; operational landslide risk modelling; Drought EWS for the Syr Darya and Zeravshan rivers 2 communication technologies: visualization systems at 7 RCMCs, public notice boards in 20 communities (EOP)						
Project Outcome	***Indicator 4*** *Number and level of effective coordination mechanisms*	A national to regional EWS protocol: Level 2 A National Framework for Climate Services (NFCS): Level 2 (baseline assessment	Level 4 = coordination mechanism in place, meeting regularly, with appropriate representation, with appropriate information flows and monitoring of	Independent project reviews; Impact Survey Data collected annually by Uzhydromet and MES	Mid-term and End of Term	UNDP, Uzhydromet, MES, PMU	NFCS meeting reports, action plan National EWS protocol and various SOP/coordination protocol products	Continued and government support and cross-agency commitment to the project;

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[30]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		conducted and Action plan endorsed by stakeholders) Number of institutional and coordination frameworks and technical guidance in use by Uzhydromet and MES on i) data collection and archiving; ii) hazard mapping; iii) risk assessment; and iv) dissemination of information to RCMCs: 2 coordination protocols in place (EOP)	action items/issues raised.				Focus groups, user satisfaction analysis based on surveys	
	Indicator 5 *Use of climate information products/services in decision-making in climate-sensitive sectors*	At least 4 government agency members under SEPRS use the forecasts and risk assessment for climate hazards in decision-making	Weather and climate-related information will be used for prevention, preparedness and risk management purposes.	Independent project reviews; Impact Survey Data collected from Uzhydromet, MES and agency members	Mid-term and End of Term	UNDP, Uzhydromet, MES, Agency members under SEPRS PMU	National climate change and DRM/DRR policies, plans and reporting at the national, district, and community levels.	Uzhydromet and MES have continued national and local political support for the development of a state emergency prevention and response system (SEPRS).

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[30]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		and prioritization Inter-agency data-sharing agreement between agencies institutionalized and data-sharing protocols established 50% of surveyed government beneficiaries (agencies) report improved emergency response due to improved disaster warning (EOP)					Reports on the performance of the MHEWS Project reports User /focus group surveys	
	Indicator 6 *Number of males and females reached by (or total geographic coverage of) climate-related early warning systems and other risk reduction measures*	The number of males and females reached by the early warning system will be estimated based on the coverage data of mobile network (and other communication channels, e.g	All population (5.666 million females, 5.630 million males) in the project implementation region have access to climate hazards and early warning information.	Independent project reviews; Impact Survey	Mid-term and End of Term	UNDP, Uzhydromet, MES, PMU	Operational databases for observational equipment Gender-disaggregated MHEWS coverage data, including RCMC/target community demographic profile, mobile	Continued commitment and uptake of the information by targeted communities in the project Target communities understand shorter- to longer-term benefits of MHEWSs and risk reduction interventions

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[30]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	established/strengthened	TV, radio broadcast). (EOP)					subscriber coverage Gender-sensitive field surveys/focus groups	Government has a political will, institutional capacity and necessary resources to support the proper O/M of MHEWS. No staff and budget cuts occur at MES and Uzhydromet
	Indicator 7 *Number of males and females made aware of climate threats and related appropriate responses*	80% out of 500 surveyed EWS beneficiaries (200 males and 200 females) report enhanced risk awareness 70% out of 500 surveyed beneficiaries (175 males and 175 females) report that the warnings are clear and being used by their households for enhanced disaster preparedness		Independent project reviews; Field Survey Impact Survey	Mid-term and End of Term	UNDP, Uzhydromet, MES, PMU	Project reports Gender-disaggregated MHEWS coverage data, including RCMC/target community demographic profile Site visits and reports Project reporting and gender-sensitive field surveys/focus groups	Continued commitment and uptake of the information by targeted communities in the project Target communities understand shorter- to longer-term benefits of MHEWSs and risk reduction interventions Government has a political will, institutional capacity and necessary resources to support the proper O/M of MHEWS. No staff and budget cuts

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[30]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		(EOP)						occur at MES and Uzhydromet * The methodology to measure the change in awareness and the survey sample size will be established through activity 3.3 during the implementation phase (Year 1) as part of the survey design, tentatively it will include at least 500 project beneficiaries from 10 different communities.
Output 1: Upgraded hydro-meteorological observation network, modelling and forecasting capacities	***Indicator 8*** *Number of new hydro-meteorological monitoring equipment purchased installed and operational*	25 automatic weather stations (AWS) installed, calibrated and operational; 4 upper-air stations modernized; 2 online radar system established (EOP)	Implementation of risk management measure	Project Report Field Survey Report Data collected annually by Uzhydromet	Annual	UNDP, Uzhydromet, PMU	Equipment procurement and operation log	Government commitments to secure adequate O/M of monitoring equipment, relevant software and databases are fulfilled continuously both during the project implementation and afterwards Capacities built across relevant agencies through the project are

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[30]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
								maintained and periodically updated Land for installation is available and accessible
	Indicator 9 *Number of districts for which hazard and risk maps (covering landslides, mudflows, avalanches and hydrological droughts) are available*	*7* *(EOP)*	The project target territories belong to these districts.	Project Report Hazard and risk maps Data annually collected from Uzhydromet and MES	Annual	UNDP, Uzhydromet, MES, regional and local governments, PMU	Project reports Site visits Uzhydromet database to store hydrometeorological monitoring data Monitoring and risk assessment products	Relevant government agencies cooperate on the implementation of the MHEWS and data management
	Indicator 10 *Level of institutional capacity and knowledge of Uzhydromet staff on monitoring and forecasting technologies and procedures*	100% targeted staff (of a target audience of 600 people) trained (including 60% women/40% men) Institutional capacity assessment score for Uzhydromet enhanced by 50 % against baseline (EOP)	To be evaluated against capacity scorecard baseline with Uzhydromet.	Capacity surveys, Uzhydromet progress report against national programmes, Data collected annually by Uzhydromet	Annual	UNDP, Uzhydromet, PMU	Training reports Key stakeholder interviews/feedback survey Institutional capacity assessment scorecard for Uzhydromet	Inter-agency data available and accessible as inputs to the knowledge management platform Inter-agency data-sharing agreement between agencies institutionalized and data-sharing protocols established The decision support tool is available to and accessed by project sites
Output 2 A functional	***Indicator 11***	2.1.1. Warnings on sudden	The scoring and end-user survey	Project Report,	Annual	UNDP, Uzhydromet,	Monitoring and risk assessment	Relevant government

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[30]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
Multi-Hazard Early Warning System is established based on innovative impact modelling, risk analyses, effective regional communication and community awareness.	*Improvement in the timeliness of warnings received by end-users as a result of the impact-based integrated MHEWS*	changes in weather covering most of the territory of the country - 4-6 days lead time Mudflow warnings - 3-4 days lead time Avalanche warnings -4-5 days lead time 2.1.2. 50% reduction: time of communicating warnings from MES HQs to its regional divisions: 7.5 minutes; time of communicating warnings to population: 30 minutes. (EOP)	methodology for this indicator will be designed through activity 3.3 during Year 1 to capture user perceptions of the timeliness of warnings for different hazards. The survey will include institutional and individual users of MHEWS. Baseline survey/scoring will be conducted through activity 3.3 during Year 1.	Warnings, Reports of Uzhydromet and MES		MES, PMU	products (risk forecasts and warnings produced by Uzhydromet and MES)	agencies cooperate on the implementation of the MHEWS and data management Uzhydromet and MES adequately capacitated Existing exposure and hazard data inventoried and data gaps identified Inventoried and reviewed available tools and technologies to facilitate climate risk profiling The standard project implementation process for conducting climate risk profiling established through a consultative process Disaster loss and damage curves developed Exposure databases updated and centralized Vulnerability of communities in eastern districts assessed

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[30]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
								Climate-risk information on multi-hazards made available and accessible
	Indicator 12 *Level of institutional coordination among Uzhydromet, MES and RCMCs on multi-hazard early warnings responses and dissemination*	Level 4 (EOP)	Level 4 = At least 4 institutional coordination frameworks or Standard Operating Procedures (SOPs) in place among Uzhydromet, MES and RCMCs on data collection, archive, risk and hazards analysis, and warnings dissemination to regional crisis centres 80% of surveyed institutional users (i.e. 16 out of 20) report that the level of coordination is adequate for performing their functions within MHEWS.	Survey report SOPs Annual reports from Uzhydromet and MES, Annual data	Annual	UNDP MES Uzhydromet PMU	Project reports SOPs on data collection, dissemination and risk analysis established and adopted by institutional users User survey results * survey sample size will be established during the implementation phase as part of survey design, tentatively it will include at least 20 institutional users from 5 different agencies/regional centres	Inter-agency data-sharing agreement between agencies institutionalized and data-sharing protocols established - national and regional CMC and other relevant government units are willing to cooperate and conduct regulatory and institutional reform
	Indicator 13 *Number of functional regional crisis management centres with access to area-*	7 Regional Crisis Management Centers (RCMCs) equipped with visualization systems and	The project target RCMCs belongs to the selected 7 targeted districts.	The capacity survey, MES progress report against national programmes, Data	Annual	UNDP MES PMU	Reporting RCMCs undertaking communication with communities of regional early warnings and advisories	Government undertakes office refurbishment and establishes power and internet connections

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[30]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	specific early warnings, mobile alerts and risk mapping technologies	have access to updated risk maps, area-specific hazard alerts and warning information for risk mitigation and early actions (EOP)	To be evaluated against capacity scorecard baseline with MES.	collected annually by MES			Institutional capacity assessment scorecard for RCMCs	Government staffs RCMCs The decision support tool is available to and accessed by project sites
Output 3: Strengthened climate services and disaster communication to end-users.	***Indicator 14*** *Level of user interaction in the co-design and co-production of disaster-related information, as a result of the establishment of a National Framework for Climate Services (NFCS) for Uzbekistan*	Level = 3 (EOP)	Level 3: a regular user-dialogue mechanism incorporated into the NFCS action plan and the National Climate outlook platform	Project report Consultation Workshop report NFCS concept and Action Plan	Anual	UNDP MES Uzhydromet PMU	Project reports NFCS and NCOF meeting reports Meeting notes of consultation workshops	MES, Uzhydromet and relevant government agencies willing to cooperate on climate service and data management
	Indicator 15 *Number of revenue generation options based on delivery of disaster risk information products/servic*	At least 3 revenue generation options based on disaster-related information/services endorsed by	Feasibility analysis for a sustainable value chain-based business model for disaster-related information and services will be completed at this stage and will be the	The business model analysis report Survey Project report	Annual	UNDP MES Uzhydromet PMU	Project reports The business model analysis report Meeting notes of consultation workshops	MES, Uzhydromet and relevant government agencies willing to cooperate and mobilize private sector participation

Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[30]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	es included in the business model and endorsed by institutional and sectoral users	users/stakeholders from climate-sensitive sectors (EOP)	basis for the consequent discussion and endorsement of revenue-generating options					
	Indicator 16 *Number of communities in targeted areas with improved access to early warning alerts through information board, mahalla training and info-products/meetings*	20 75% of surveyed beneficiaries (incl. 50% female) in targeted communities report that the warnings and climate advisories are clear, accessible and easy to apply for enhanced preparedness	The project has identified 15 districts located in seven provinces in eastern Uzbekistan as hazard-prone target regions. They are: Qoichirchik, Bostanlik, Sirdarya, Saihunabad, S. Rashidov, Gallaaral, Bulungur, Jambai, Koshrabad, Kitab, Yakkabag, Dehkanabad, Chust, Turakurgan, and Dangarin.	Survey report Project reports	Annual	UNDP MES Uzhydromet PMU	Project reporting and gender-sensitive field surveys/focus groups and site reports	Continued commitment and uptake of the information by targeted communities in the project