General Information

Fund	MPTF_00281: The Systematic Observations Financing Facility
FMP Record	MPTF_00281_00012: Maldives Investment Phase Funding Request
MPTFO Project Id	
Start Date	
End Date	

Applicants

Status	Contact Type	Name	e-mail	Position	Telephone
Active: 19-Feb-2024 3:12:00 AM	Project Manager	Jochem Zoetelief	jochem.zoetelief@un.org		
Active: 19-Feb-2024 2:51:00 AM	Project Manager	Anita Mudzhumdar	anita.mudzhumdar@un.org		
Active: 19-Feb-2024 3:12:00 AM	Project Manager	Ayda Maria Villalobos Castro	ayda.villaloboscastro@un.org		

Signatories

Signature Process	Role	Name of Organization	Name	User Email
Digital	Signatory	UNEP: UNEP (United Nations Environment Programme)	Mr Jochem Zoetelief	jochem.zoetelief@un.org
Digital	Signatory	WMO: WMO (World Meteorological Organization)	Celeste Saulo	csaulo@wmo.int

Contacts

Contact Type	Name	e-mail	Position	Additional e-mail	Telephone
No data available.					

Description

Maldives is a low-lying Small Island Developing State (SIDS) located in the Indian Ocean. It is highly vulnerable to climate-related hazards and climate change impacts such as rising temperatures, extreme rainfall, sea-level rise and coastal flooding. Strategic documents in Maldives including Intended Nationally Determined Contributions (2015), First Biennial Update Report to UNFCCC (2019), updated Nationally Determined Contributions (2020) all state that climate change is an existential threat to Maldives, therefore strengthening early warning systems and systematic observations, expanding and strengthening meteorological network and weather-related early warning systems, as well as developing human resource capacity at Maldives Meteorological Service (MMS) are among the key priority climate adaptation actions for Maldives. Maldives has also been included in the first group of 30 countries that should receive coordinated and targeted support under the United National Secretary General's Early Warnings for All Initiative (EW4All), which will create further opportunities for accelerated implementation of early warning systems in the country. This project aims to support Maldives in achieving its strategic climate adaptation and resilience goals through strengthening its technical, institutional and human capacity for basic weather and climate observations in line with Global Basic Observing Network (GBON) regulations, underpinning numerical weather predictions at the global and national levels and supporting multi-hazard early warning systems.

Climate and weather-related information in Maldives are provided by the Maldives Meteorological Service (MMS). Currently the MMS remains a semi-autonomous body under Ministry of Climate Change, Environment and Energy. Though MMS has a solid experience and capacity in conducting hydrometeorological observations, there are significant gaps preventing GBON compliance, including obsolete equipment, insufficient ICT capacity, lack of qualified staff, lack of funding for trainings, insufficient budget for maintenance of the equipment, insufficient institutional capacity, etc. The project will aim to fill these gaps through:

- Strengthening meteorological network, including upgrade of existing 4 surface-based stations, installation of 1 new surface station and upgrade of 1 upper-air sounding station;
- Strengthening ICT capacity and data management system to ensure that data is shared through WIS2.0 network;
- Enhancing institutional capacity of MMS, including drafting a new organizational strategy and gender policy, establishing a stakeholder engagement plan for more systematic engagement of various stakeholders including private sector and CSOs, organizing gender and stakeholder engagement workshops;
- Recruitment of new technical, IT and project management staff for 5 years of project implementation;
- Supporting substantial technical training and capacity development activities for MMS staff, as well as providing opportunities for regional collaboration;
- Supporting operations and maintenance of the equipment during the 5 years of project implementation.

UNEP will be the Implementing Entity for the project and will be responsible for the implementation, financial management, evaluation, reporting and closure of the activities under the project. The Maldives Meteorological Service (MMS) under the Ministry of the Climate Change, Environment and Energy will serve as the national Executing Entity (EE). The MMS/ Ministry of Climate Change, Environment and Energy will be accountable to UNEP as IE for project execution at the national level and for the effective and efficient use of resources. Upon further consultations with MMS, UNEP in its executing role will engage relevant Technical Partner agencies to conduct activities such as trainings. These might include the Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES) and Agency for Meteorology, Climatology and Geophysics of the Republic of Indonesia (Badan Meteorologi, Klimatologi, dan Geofisika - BMKG) (beyond its role as a collaborating peer advisor). The peer advisor Finnish Meteorological Institute (FMI) will also continue to be engaged.

Universal Markers	**Gender Equality Marker**	**Risk**
	• GEM2 - GEWE is a significant objective of the Key Activity's overall intent	• Medium Risk
Optional Markers	**WB Income Category**	• Upper Middle Income
	UN LDC	• No
	Small Island Developing States (SIDS)	• Yes
Fund Specific Markers	**SOFF Phases**	**SOFF Phases** • Investment Phase
	EW4All	**Early Warnings for All initial focus countries** • Yes
	Fragile and conflict-affected situation	**Fragile and conflict-affected situation** • No
	Peer advisor	**Peer advisor** • Finnish Meteorological Institute (FMI) [Finland] • Meteorological, Climatological and Geophysical Agency (BMKG) [Indonesia]

Geographical Scope	**Geographical Scope**	**Name of the Region**	**Region(s)**	**Country**
	• Country		• Asia	• Maldives

Participating Organizations and their Implementing Partners	**Participating Organizations**	**Government/ Multilateral/ NGO/ Other**	**New Entities**	**Implementing Partners**
	• UNEP - UNEP (United Nations Environment Programme) • WMO - WMO (World Meteorological Organization)			

Programme and Project Cost	**Participating Organization**	**Amount (in USD)**	**Comments**
	Budget Requested		
	UNEP	$4,436,526.00	
	WMO	$470,800.00	
	Total Budget Requested	**$4,907,326.00**	
	Tranches		

Tranche 1		Tranche 2		Tranche 3	
UNEP (90%)	$3,992,873.40	UNEP (10%)	$443,652.60	UNEP (0%)	$0.00
WMO (33.33%)	$156,917.64	WMO (33.33%)	$156,917.64	WMO (33.34%)	$156,964.72
Total:	**$4,149,791.04**	**Total:**	**$600,570.24**	**Total:**	**$156,964.72**

	Other Sources (Parallel Funding)	
	Total	**$4,907,326.00**

Thematic Keywords		
Programme Duration	**Anticipated Start Date**	01-Apr-2024
	Duration (In months)	60
	Anticipated End Date	01-Apr-2029

Narratives

Title	Text

Close the most significant data gaps	Based on the WMO Global WIGOS Data Quality Monitoring System, there are currently 5 (manual) reporting surface observation stations in Maldives. However, they report every 3 hours, while according to GBON requirements they should report hourly. In addition, some of the equipment is obsolete (for example the mercury thermometers need to be replaced with digital ones, since the spare parts are no longer available). Although on average the GBON standard horizontal density requirements (200 km) are fulfilled, there is a an over 300 km interval between the stations in Hanimaadhoo and Male, which means that an additional station should be installed. To meet the GBON spatial and temporal resolution requirements as well as to replace obsolete technology (especially mercury thermometers), it is proposed to upgrade and automate 4 of the existing stations, as well as install one additional station (in Maafaru) as agreed with the WMO Technical Authority in the context of the National Contribution Plan. The only upper-air station in the country (WMO location indicator- 43599) needs to be upgraded. The current Hydrogen Generator is old and non-functional and needs to be replaced with a new one. The current sounding station was manufactured by the International Met Systems company about 20 years ago. According to the manufacturer, the model is not supported, and the system is therefore obsolete. Furthermore, there is a need for additional ICT infrastructure to run a data management system and store the data. There is also a need for a solution to back up the essential data. MMS is using Corobor data management system which is currently being modernized. To ensure full compliance with WIS 2.0, a provision has been included in this funding request. There is also a need for a separate data collection module for the AWS data, which should be provided by the manufacturer and will be integrated into the overall Corobor data management system.

Type of station	**Baseline (Results of the GBON National Gap Analysis)**				**GBON National Contribution Target**	
	Target (# of stations)[1]	**GBON-compliant stations (#)**	**Gap**		**To improve**	**New**
			New	**To improve**		
Surface	5	0	1	4	4	1
Upper-air	1	0	0	1	1	0
Marine	***when applicable**					

Table1. GBON National Contribution Target

[1] For SIDS, for the WMO GBON Global Gap Analysis in January 2022, the EEZ area has been added to the total surface area which is the basis for the target number of stations. The standard density requirements for SIDS have been calculated with 500 km for surface stations and 1000 km for upper-air stations.

Target easy fixes	One of the easy fixes is upgrade of the 4 existing surface stations to meet GBON temporal resolution requirements and replace the obsolete technology. The second one is upgrading the upper-air station with the new equipment. An easy systematic mechanism for instrument sensor calibration will also be designed as a part of the Investment Phase with technical guidance from the peer advisors.
Create leverage	UNEP is supporting Maldives in developing a GCF project proposal “Toward Risk-Aware and Climate-resilienT communities (TRACT) - Strengthening climate services and impact-based multi-hazard early warning in Maldives”, which has been approved at the concept note stage. In this context, UNEP has provided active support and expertise during the first EW4All National Consultation Workshop in Maldives held in July 2023. The second day of the Workshop focused on a comprehensive discussion around the UNEP’s funding proposal to GCF. UNEP support for Maldives both as GCF Accredited Entity and SOFF Implementing Entity will enable the proposed project to maximise the use of leverage created by SOFF investments and ensure complementarity between the relevant capacity development efforts. The envisaged result is that of a more coherent and streamlined investment in hydrometeorological sector strengthening in Maldives, which is an important contributor to sustainability in the longer term. Moreover, given that the initial SOFF support would cover surface-based and upper air observations, the proposed GCF project could instead focus on equipment investments into marine meteorological stations, which are not the part of the initial SOFF support. Data from these stations will contribute to further enhance Numerical Weather Prediction quality.

Maximize delivery capacity	UNEP has strong expertise and experience in supporting observation and monitoring systems in developing countries. It is currently working on implementing a GCF-funded 5-year project "Enhancing Early Warning Systems to build greater resilience to hydro-meteorological hazards in Timor-Leste" and a GCF-funded 5-year program "Enhancing Climate Information and Knowledge Services for resilience in 5 island countries of the Pacific Ocean" where strengthening observational capacity of the NHMSs is one of the key components. UNEP's Early Warning and Assessment Division has already been working with Maldives through a GCF Readiness project. In addition, UNEP capacity to deliver SOFF support efficiently in Maldives is enhanced through joint work with the Maldives Meteorological Service on developing a proposal for GCF funding for a project on "Strengthening climate services and impact-based multi-hazard early warning in Maldives". UNEP is also actively engaging with Maldives in developing the National Adaptation Plan (NAP) and through the Early Warnings for All Initiative. UNEP is an implementing partner under the Early Warnings for All Initiative (EW4All) and a member of a technical working group under Pillars 1 (Risk Knowledge) and 2 (Observations & Forecasting). Launched by the UN Secretary-General in November 2022 at the COP27, the EW4All Initiative calls for the whole world to be covered by early warning systems by the end of 2027. Maldives is included in the first group of 30 countries that should receive coordinated and targeted support under the EW4All initiative, which will create further opportunities for accelerated implementation of early warning systems in the country. The SOFF investment funding will represent a major contribution as part of the EW4All overall support to Maldives. Finally, as part of the UN system, UNEP is represented in the UN Country Team through its Asia-Pacific Regional Office.
Sub-regional gains	MMS is a member of several regional organizations co-operating in the field of hydrometeorology, most importantly the Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES). Its main regional information exchange is related to tsunami warnings, provided through regional centers such as Regional Tsunami Service Providers (RTSPs) in Australia, India & Indonesia. However, as there are no main fresh water sources in the Maldives (e.g rivers) besides ground water and rainwater sources, the MMS' engagement in regional hydrological forums is limited. It is recommended for MMS to engage with RIMES more regularly by sharing more data and regional alerts to strengthen its regional position. Reinforcing regional collaboration could be included in the next strategy of MMS. It is also recommended to explore capacity development on stations metadata and data quality performance provided by Regional WIGOS Centre RA II. Close collaboration and partnership with the established training centers of WMO in the region, which are hosted by the India Meteorological Department (IMD), China Meteorological Administration (CMA), and Korea Meteorological Administration (KMA), as well as the Agency for Meteorology, Climatology, and Geophysics of the Republic of Indonesia (Badan Meteorologi, Klimatologi, dan Geofisika - BMKG), is also important to explore more opportunities for training programs, knowledge exchange, and technical assistance. By proactively pursuing these strategies and maintaining open lines of communication, MMS can enhance its capacity development efforts and secure additional resources to bolster its hydrometeorological services for the communities' safety and welfare. As the Maldives is quite isolated, optimization of the observing network through sub-regional network design is not plausible and is therefore not applicable. However, there are opportunities for regional collaboration in maintenance and calibration, as well as capacity building: • Calibration of the equipment used by MMS at specialized facilities in the region, such as those of BMKG in Indonesia, who will also be able to provide field calibration packages and associated technical trainings for the MMS staff. This would go beyond the role of BMKG as collaborating peer advisor for this project. • Continued engagement of MMS in the Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES), who can also conduct some of the trainings.

Execution model and implementation arrangements	UNEP will be the Implementing Entity for the Project and will be responsible for the implementation, financial management, evaluation, reporting and closure of the activities under the Project. UNEP will monitor and supervise the execution of the Project and ensure the proper management and application of SOFF Grant Proceeds. UNEP will ensure that the Grant Proceeds are utilised in accordance with the terms of the current Funding Request and that procurement is carried out according to relevant UN principles: a. Best Value for Money; b. Fairness, integrity, and transparency; c. Effective international competition; d. The interest of the UN. UNEP will deploy a hybrid executing model comprising a National Executing Entity and, at the request of the SOFF Beneficiary Country focal point, limited Executing Entity functions by UNEP itself. Through its Global Support Services Agreement with UNOPs, UNEP is able to operate at the country level without necessarily having a national office. The Agreement covers the provision of HR and procurement services. UNEP will execute the Project in line with its programme manual and standard business procedures. As a part of its executing functions, UNEP will contract Technical Partner organizations to undertake relevant activities as appropriate. The engagement of Technical Partners with a proven track record in supporting Maldives will contribute to effectiveness, coordination, and sustainability of outcomes. The Maldives Meteorological Service (MMS) under the Ministry of Climate Change, Environment and Energy will serve as the national Executing Entity (EE). The MMS/ Ministry of Climate Change, Environment and Energy will be accountable to UNEP as IE for Project execution at the national level and for the effective and efficient use of resources. UNEP will enter into an appropriate agreement (Project Cooperation Agreement) with the Ministry of Climate Change, Environment and Energy/ MMS for the execution of the Project. The Project Cooperation Agreement (PCA) will establish clear roles and responsibilities for the delivery of the proposed activities, and the schedule and conditions for instalments, the determination of the prevailing fiduciary standards and the terms and conditions for arbitrations and termination of contract. The PCA will include specific obligations for the national EE on Project execution, financial management, personnel administration and reporting, as well as arbitration and liability terms. Upon further consultations with MMS, UNEP in its executing role will engage relevant Technical Partner agencies to conduct activities such as trainings. These might include the Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES) and Agency for Meteorology, Climatology, and Geophysics of the Republic of Indonesia (Badan Meteorologi, Klimatologi, dan Geofisika – BMKG) (beyond its role as a collaborating peer advisor). The peer advisor Finnish Meteorological Institute (FMI) will also continue to be engaged. These partners are highly qualified, internationally recognised professional agencies with many years' experience of partnership in the Asia-Pacific region.
Private sector involvement	Currently there are no private sector operators providing meteorological observations or data services in the Maldives. The current business model of the MMS is fully public, and it is recommended that MMS continues using this model. The USAID report [1] which analysed present and potential private stakeholders for the MMS in various industries revealed that the nature of collaboration with private sector operators is currently mostly an end-user relationship, where users depend on the services provided by the MMS. Based on stakeholder consultations, it was determined that the users are looking for improved services and accuracy in terms of alert and warning information based on sectoral activity (sector-based and impact-based forecasting). In the area of public-private sector collaboration within MMS, the current landscape is mixed. While formal agreements for service delivery with the private sector are not yet in place, the MMS has established some crucial agreements, particularly in the field of civil aviation. However, formal arrangements regarding the operation and maintenance of networks, as well as the sharing of the observations data with the private sector, are yet to be realized. This absence of a legal framework leaves room for potential future developments in this regard. To further explore the potential to work with various stakeholder and particularly with the private sector and to ensure that future stakeholder engagement is more strategic and systematic, it is proposed to establish a stakeholder engagement plan as a part of the Investment Phase. The plan should be managed and monitored regularly by a designated person, such as a specific Partnerships or New Business Development focal point. [1] USAID, July 2023, Potential for Impact Based Forecasting in the Maldives to mitigate climate risks

Civil society participation	MMS collaborates with island communities, NGOs (Red Crescent), local government officials, and disaster management organizations to organize outreach activities. Interaction with stakeholders and end-users also takes place during regional user forums or outreach initiatives undertaken by regional and international partners such RIMES. College students frequently visit MMS as a part of community awareness program. This is also done at the existing observation stations on other islands. In the case there is no local MMS office, the awareness program is carried out virtually upon request. Furthermore, awareness campaigns are carried out regularly in partnership with local CSOs. Several initiatives have been undertaken to utilize media to reach underserved groups like the young generations, the elderly, disabled, and others. In addition, MMS is striving to eliminate language barriers and create sector-based warnings. To ensure that future stakeholder engagement is more strategic and systematic, the Investment Phase will work to: • Establish a stakeholder engagement plan to be managed and monitored regularly by a designated person, such as a specific Partnerships or New Business Development focal point. • Conduct stakeholder engagement workshops on the implementation of the SOFF project deliverables (observational data exchange to support weather/climate and water services and products). • Organise awareness-raising activities for the community by engaging the Red Crescent and other CSOs active in the country, i.a. to prevent vandalism. • Organise high level dialogues on benefits, co-production, and ownership of the new national GBON infrastructure. • Develop and disseminate communication materials (i) highlighting the role of women in meteorology, hydrology and climatology, (ii) promoting female role models, and (iii) advocating for gender responsive weather, hydrological and climate services (5.1.3(c) in WMO Gender Action Plan).
Fiduciary systems	The financial management and procurement within the Project will be guided by the UN financial regulations, rules and practices, as well as UNEP's Project manual. The financial rules of UNEP, which follow International Public Sector Accounting Standards (IPSAS), are promulgated pursuant to the Financial Regulations and Rules of the UN. Within this context, funding allocation mechanisms are managed in accordance with the UN rules and procedures, including eligibility criteria, proposal evaluation processes, quality assurance and control, project monitoring and supervision. UNEP is audited annually by the UN Board of Auditors. UN financial regulations and rules require the segregation of duties, and safeguards to ensure compliance with UN financial rules and regulations. Through its Global Support Services Agreement with UNOPs, UNEP is able to operate at the country level without necessarily having a national office. This Agreement covers the provision of HR and procurement services. Generally, UNEP's modality for project implementation results in funds being transferred in tranches to the Executing Entities (EEs) and Technical Partners (TPs) once they have satisfied the conditions that are defined under the legal instrument (Project Cooperation Agreement(s): PCAs to be signed between UNEP and the EEs/TPs. The PCAs will include specific obligations on financial management, reporting and procurement, and will require periodic reporting from the EEs/TPs. The Ministry of Climate Change, Environment and Energy/ Maldives Meteorological Service (MMS) as the national EE follows the Government of Maldives' financial and procurement rules. Similarly, Technical Partners and the Peer Advisors supporting execution in Maldives (including e.g., RIMES, BMKG and FMI), are subject to financial and procurement policies of their governments/Member States.

Social and environmental safeguards	Project activities are subject to national and international law, as well as UNEP's Environmental and Social Safeguard Principles and Standards in accordance with the UNEP Environmental and Social Sustainability Framework (ESSF). The UNEP Environmental and Social Sustainability Framework (ESSF) was approved in February 2020 and has an overall aim to strengthen the sustainability and accountability of UNEP programmes and projects. The framework identifies UNEP's commitment to sustainable development and environmental and social standards that are designed to promote human well-being and the protection of the environment. The framework identifies the following purposes: • To enhance outcomes by systematically integrating environmental, social and economic dimensions in the UNEP-funded programmes and projects. • To strengthen alignment of UNEP's work with the SDGs and other UN entities and partners in addressing the environmental and social sustainability of development efforts. • To set standards of sustainability for UNEP's operations thereby confirming UNEP's accountability to its member States, and other funders. • To enable UNEP to work in a safer and smarter manner, thereby minimizing potential risks and harm to intended beneficiaries while enhancing UNEP's capabilities and credibility. The framework is structured around guiding principles, safeguard standards and related operational modalities. The guiding principles of the framework are derived from the 2030 Agenda for Sustainable Development and include the following: Leave No One Behind, Human Rights and Gender Equality and Women's Empowerment, Sustainability and Resilience and Accountability. The safeguard standards of the framework include the following: • Safeguard Standard 1: Biodiversity, Ecosystems and Sustainable Natural Resource Management • Safeguard Standard 2: Climate Change and Disaster Risks • Safeguard Standard 3: Pollution Prevention and Resource Efficiency • Safeguard Standard 4: Community Health, Safety and Security • Safeguard Standard 5: Cultural Heritage • Safeguard Standard 6: Displacement and Involuntary Resettlement • Safeguard Standard 7: Indigenous Peoples • Safeguard Standard 8: Labour and Working Conditions The following sections set out the overarching approach UNEP will take to operationalize this Framework: a) screening, assessment, management and monitoring of environmental and social risks; and b) steps for ensuring meaningful stakeholder engagement and accountability. To screen projects, UNEP utilizes the Safeguard Risk Identification Form (SRIF). The form is used to identify any potential environmental and social risks and impacts associated with the proposed activities, and to identify opportunities to support other positive changes to the environment and society. UNEP's Gender Equality and Environment policy recognizes the role of gender equality as a 'driver of sustainable environmental development.'8 As the lead organization to coordinate environmental matters within the United Nations System, UNEP has the responsibility to drive the achievement of the System's gender equality mandate in its environmental assessments and analyses, norms, guidelines and methods, for use by stakeholders looking for guidance on how to effectively manage the environment for their sustainable development and economic growth. To that end, UNEP has sought to formalize and bolster agency-wide gender mainstreaming efforts and has the expertise and personnel to support the analytical underpinning of project-level gender mainstreaming during implementation.

Dispute resolution mechanism	As a part of the UNEP's ESS Framework, stakeholders who may be adversely affected by the project can communicate their concerns about the environmental and social performance of the project to UNEP. The Grievance Redress Mechanism has been designed to the extent possible according to the effectiveness criteria for non-judicial grievance mechanisms outlined in the UN Guiding Principles on Business and Human Rights. UNEP's Stakeholder Response Mechanism (SRM) is established through the Independent Office for Stakeholder Safeguard-related Response (IOSSR). The IOSSR serves two functions: 1. Compliance Review: processes for responding to claims by Stakeholders alleging that UNEP activities are not in compliance with the ESS Framework; 2. Grievance Redress: provides access to dispute resolution mechanisms used to address project-related disputes that relate to UNEP's activities. The IOSSR is responsible for the SRM, and thus carries out the following responsibilities: • Receives and screens complaints for eligibility; • Maintains a roster of accredited independent experts related to compliance review and dispute resolution; • Develops the appropriate TOR for facilitating the compliance review or dispute resolution; • Manages and oversees all experts engaged in compliance review and dispute resolution; • Maintains the IOSSR website that provides the public with access to all relevant documents related to compliance review and dispute resolution; • Issues reports to the UNEP Executive Director with findings and recommendations for compliance reviews, and outcomes for dispute resolution processes; • Monitors the implementation of decisions related to compliance review and grievance redress; • Reports on the IOSSR operations and provides advice based on lessons learned; • Conducts outreach to Stakeholders regarding the IOSSR; • Seeks to minimise risks of retaliation to complainants. Complaints can be filed to the Stakeholder Response Mechanism through the online project concern form, email or mail to the following address: Independent Office for Stakeholder Safeguard-related Response (IOSSR) & Director of Corporate Service Division United Nations Environment Programme Nairobi, Kenya Email: unenvironment-IOSSR@un.org Details are available in the UNEP's SRM Operating Procedures.
Additional relevant policies and procedures	As part of the United Nations Secretariat, UNEP follows UN policies, rules and regulations.

SDG Targets

Target	Description
Main Goals	
Goal 13. Take urgent action to combat climate change and its impacts2	
TARGET_13.1	13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
TARGET_13.2	13.2 Integrate climate change measures into national policies, strategies and planning
TARGET_13.3	13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
TARGET_13.b	13.b Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities
Secondary Goals	
Goal 5. Achieve gender equality and empower all women and girls	
TARGET_5.5	5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life

SDG Indicators

Indicator Code	Description
No data available.	

Contribution to SDGs

Participating Organization	% TARGET_13.1	% TARGET_13.b	% TARGET_13.3	% TARGET_5.5	% TARGET_13.2	% Total
UNEP	20	20	20	20	20	100
WMO	20	20	20	20	20	100
Total contribution by target	**40**	**40**	**40**	**40**	**40**	
Project contribution to SDG by target	**20**	**20**	**20**	**20**	**20**	**100**

List of documents

Document	Document Type	Document Source	Document Abstract	Document Date	Classification	Featured	Status	Modified By	Modified On
Maldives-SOFF-Investment-Phase-Funding-Request.pdf	Other Docs	Project		26-Oct-2023	Internal	No	Finalized - Signature Redacted	anita.mudzhumdar@un.org	19-Feb-2024 7:52:30 AM

Project Results

Outcome	Output	Description
1. GBON institutional and human capacity developed		
	1.1 National consultations including with CSOs, and other relevant stakeholders conducted.	

Outcome	Output	Description			
	Activities				
	Title	**Description**	**Lead Participating Organization**	**Participating Organization**	**Other Organizations**
	1.1.1. Conducting face-to-face inception workshops engaging multiple stakeholders (including CSO and private sector)		UNEP - UNEP (United Nations Environment Programme)		
	1.1.2. Conducting stakeholder engagement workshops on implementation of the project deliverables (observations data exchange to support weather/climate and water services and products)		UNEP - UNEP (United Nations Environment Programme)		
	1.1.3. Conducting high level dialogues on benefits, co-production, and ownership of the new national GBON infrastructure		UNEP - UNEP (United Nations Environment Programme)		
	1.1.4. Conducting gender workshops to strengthen gender equality in governance, strategy, programmes, and decision making, and facilitate grounds for developing gender policy		UNEP - UNEP (United Nations Environment Programme)		
	1.2 NMHS institutional capacity required to operate the GBON network developed.				

Outcome	Output	Description			
	Activities				
	Title	**Description**	**Lead Participating Organization**	**Participating Organization**	**Other Organizations**
	1.2.1. Drafting an Organizational Strategy, that will clearly outline the action plan for how the MMS will achieve its short and long-term goals and become GBON compliant		UNEP - UNEP (United Nations Environment Programme)		
	1.2.2. Drafting a new organizational Gender Policy, with specific actions that are measurable and regularly monitored, that are based on the WMO Gender Action Plan		UNEP - UNEP (United Nations Environment Programme)		
	1.2.3. Establishing a stakeholder engagement plan for more systematic engagement of various stakeholders including private sector and CSOs		UNEP - UNEP (United Nations Environment Programme)		
	1.3 NMHS human capacity required to operate the GBON network developed.				

Outcome	Output	Description				
	Activities					
	Title	**Description**		**Lead Participating Organization**	**Participating Organization**	**Other Organizations**
	1.3.1. Benchmarking and developing an observation process of upper-air sounding (supported by peer adviser)			WMO - WMO (World Meteorological Organization)		
	1.3.2. Benchmarking good practices on archiving, transfer, and QC/QA, and subsequent SOPs as well as roadmap for QC/QA methods developed (supported by peer adviser)			WMO - WMO (World Meteorological Organization)		
	1.3.3. Training on upper-air system (basic level) and surface weather station (advanced/supplementing) operation and maintenance (vendor, supported by peer adviser)			WMO - WMO (World Meteorological Organization)		
	1.3.4. Benchmarking mature project and portfolio management and coordination culture (supported by peer adviser)			WMO - WMO (World Meteorological Organization)		
	1.3.5. Recruitment of new technical, IT staff and project management staff for 5 years of the Investment Phase			UNEP - UNEP (United Nations Environment Programme)		
	1.3.6. Participation in regional and international seminars, meetings, forums, workshops and trainings related to data processing, instrumentation, calibration and all SOFF and GBON related activities (e.g., those provided by Regional WIGOS Centre RA II)			UNEP - UNEP (United Nations Environment Programme)		
	1.3.7. Refresher training program on observations, WIS 2.0, WMO station meta data, database and climate data processing quality control and archival process, data assimilation in NWP modelling, instrument calibration and maintenance training programs.			UNEP - UNEP (United Nations Environment Programme)		
2. GBON infrastructure in place						
	2.1 New land-based stations and related equipment, ICT systems, data management systems and standard operating practices in place.					

<table>
<tr><th>Outcome</th><th>Output</th><th>Description</th></tr>
<tr><td></td><td colspan="2">Activities<table>
<tr><th>Title</th><th>Description</th><th>Lead Participating Organization</th><th>Participating Organization</th><th>Other Organizations</th></tr>
<tr><td>2.1.1. Procurement and installation of sensors and logger in 1 new surface weather station, including relevant civil works for station establishment.</td><td></td><td>UNEP - UNEP (United Nations Environment Programme)</td><td></td><td></td></tr>
<tr><td>2.1.2. Training of operational staff members by vendor</td><td></td><td>UNEP - UNEP (United Nations Environment Programme)</td><td></td><td></td></tr>
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<tr><td></td><td>2.2 Improved land-based stations and related equipment, ICT systems, data management systems and standard operating practices in place</td><td></td></tr>
<tr><td></td><td colspan="2">Activities<table>
<tr><th>Title</th><th>Description</th><th>Lead Participating Organization</th><th>Participating Organization</th><th>Other Organizations</th></tr>
<tr><td>2.2.1. Procurement and installation of sensors and logger in 4 surface weather stations, including relevant civil works for station rehabilitation/renewal</td><td></td><td>UNEP - UNEP (United Nations Environment Programme)</td><td></td><td></td></tr>
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<tr><td></td><td>2.4 Improved upper-air stations, related equipment, ICT systems, data management systems and standard operating practices in place.</td><td></td></tr>
</table>

Outcome	Output	Description
	Activities	

Title	Description	Lead Participating Organization	Participating Organization	Other Organizations
2.4.1. Procurement and installation of one manual upper-air measurement system including ground receiving system, UPS, hydrogen generator, consumables for one year		UNEP - UNEP (United Nations Environment Programme)		
2.4.2. Renovation of the facilities and relevant civil works for the rehabilitation/renewal of the station		UNEP - UNEP (United Nations Environment Programme)		
2.4.3. Supplementary costs for IT infrastructure, including hardware and software		UNEP - UNEP (United Nations Environment Programme)		

3. Sustained compliance with GBON		
	3.1 GBON land-based stations' commissioning period completed.	
	Activities	

Title	Description	Lead Participating Organization	Participating Organization	Other Organizations
3.1.1. Maintenance and calibration of land-based stations of four-year period. Includes field calibrations and outsourcing laboratory calibrations from BMKG		UNEP - UNEP (United Nations Environment Programme)		
3.1.2. Supply of spare parts for the surface stations		UNEP - UNEP (United Nations Environment Programme)		

	3.2 GBON upper air stations' commissioning period completed.	
	Activities	

Title	Description	Lead Participating Organization	Participating Organization	Other Organizations
3.2.1. Manual upper-air measurement system consumables for 4 years of investment phase		UNEP - UNEP (United Nations Environment Programme)		

Signature Indicators

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year	Linked Outcome / Output
No signature indicators available.												

Imported Fund Outcome / Output Indicators

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year	Linked Outcome / Output
Number of new land-based stations installed		Number of stations as defined in the National Contribution Plan.	tbd	Investment	Yearly	Country	Number	0	2024	1	2028	**Outcome:** 2. GBON infrastructure in place **Output:** 2.1 New land-based stations and related equipment, ICT systems, data management systems and standard operating practices in place.
Number of land-based stations improved		Number of stations as defined in the National Contribution Plan.	tbd	Investment	Yearly	Country	Number	0	2024	4	2026	**Outcome:** 2. GBON infrastructure in place **Output:** 2.2 Improved land-based stations and related equipment, ICT systems, data management systems and standard operating practices in place
Number of upper-air stations improved		Number of stations as defined in the National Contribution Plan.	tbd	Investment	Yearly	Country	Number	0	2024	1	2026	**Outcome:** 2. GBON infrastructure in place **Output:** 2.4 Improved upper-air stations, related equipment, ICT systems, data management systems and standard operating practices in place.
GBON land-based stations' commissioned		Number of stations as defined in the National Contribution Plan.		Policy	At closure	Country	Number	0	2024	5	2029	**Outcome:** 3. Sustained compliance with GBON **Output:** 3.1 GBON land-based stations' commissioning period completed.

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year	Linked Outcome / Output
GBON upper air stations' commissioned		Number of stations as defined in the National Contribution Plan.		Policy	At closure	Country	Number	0	2024	1	2029	**Outcome:** 3. Sustained compliance with GBON **Output:** 3.2 GBON upper air stations' commissioning period completed.

Project Indicators

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year	Linked Outcome / Output
Number of face-to-face inception workshops engaging multiple stakeholders		Number of face-to-face inception workshops engaging multiple stakeholders (including CSO and private sector)		Other	At closure	Country	Number	0	2024	5	2029	**Outcome:** 1. GBON institutional and human capacity developed **Output:** 1.1 National consultations including with CSOs, and other relevant stakeholders conducted.
	Percentage of females taking part in workshops	Percentage of females taking part in workshops		Other	At closure	Country	Percentage	0	2024	50	2029	

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year	Linked Outcome / Output
Number of stakeholder engagement workshops on the implementation of project deliverables		Number of stakeholder engagement workshops on the implementation of project deliverables		Other	At closure	Country	Number	0	2024	4	2029	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.1 National consultations including with CSOs, and other relevant stakeholders conducted.
	Percentage of female participants	Percentage of women taking part in workshops		Other	At closure	Country	Percentage	0	2024	50	2029	
Number of high-level dialogues on benefits, co-production and ownership of the new national GBON infrastructure		Number of high-level dialogues on benefits, co-production and ownership of the new national GBON infrastructure		Other	Yearly	Country	Number	0	2024	2	2029	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.1 National consultations including with CSOs, and other relevant stakeholders conducted.
	Percentage of female participants	Percentage of women taking part in high-level dialogues		Other	Yearly	Country		0	2024	50	2029	

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year	Linked Outcome / Output
Number of gender workshops		Number of gender workshops to strengthen gender equality in governance, strategy, programmes and decision making, and facilitate grounds for developing gender policy		Other	Yearly	Country	Number	0	2024	2	2029	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.1 National consultations including with CSOs, and other relevant stakeholders conducted.
	Percentage of female participants	Percentage of women taking part in workshops		Other	Yearly	Country	Percentage	0	2024	50	2029	
Drafting Organizational strategy		Drafting an Organizational Strategy that will clearly outline the action plan for how the MMS will achieve its short and long-term goals and become GBON compliant		Policy	At closure	Country	Yes/No	No	2024	Yes	2029	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.2 NMHS institutional capacity required to operate the GBON network developed.
	No components available.											

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year	Linked Outcome / Output
Drafting a new organizational Gender Policy		Drafting a new organizational Gender Policy, with specific actions that are measurable and regularly monitored, that are based on the WMO Gender Action Plan		Policy	At closure	Country	Yes/No	No	2024	Yes	2029	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.2 NMHS institutional capacity required to operate the GBON network developed.
	No components available.											
Establishing a stakeholder engagement plan		Establishing a stakeholder engagement plan for more systematic engagement of various stakeholders including private sector and CSOs		Policy	At closure	Country	Yes/No	No	2024	Yes	2029	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.2 NMHS institutional capacity required to operate the GBON network developed.
	No components available.											

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year	Linked Outcome / Output
Number of staff recruited		Number of staff recruited and salaries paid through the project (yearly)		Capacity	Yearly	Country	Number	0	2024	9	2029	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.3 NMHS human capacity required to operate the GBON network developed.
	No components available.											
Trainings and capacity development activities conducted		Trainings and capacity development activities conducted as per the workplan		Capacity	At closure	Country	Yes/No	0	2024	Yes	2029	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.3 NMHS human capacity required to operate the GBON network developed.
	No components available.											

Risks

Event	Category	Level	Likelihood	Impact	Mitigating Measures	Risk Owner

Non-compliance with fiduciary and procurement standards in some SOFF activities	• Operational	Medium	Rare	Major	UNEP will undertake an assessment of the financial management capacity of the national Executing Entity (EE) to identify risk elements and to prepare appropriate mitigation measures, including ongoing capacity development support by UNEP. UNEP will also closely monitor the financial management of the Project using the established Monitoring and Evaluation procedure and financial reporting mechanism, including an annual audit; and establish internal controls for the Project and project fund management. The Project Cooperation Agreements (PCAs) between UNEP and the national EE and Technical Partners will include warranties and caveats by the EE to inter alia ensure compliance with the Anti-Fraud and Anti-Corruption Framework of the United Nations Secretariat.	
SOFF-funded investments cause environmental or social impacts	• Social and Environmental	Medium	Unlikely	Moderate	The potential impacts are likely to be very limited in terms of magnitude and easily avoided by proactive planning. Many of the project activities are related to capacity building and training, which are inherently low-impact activities. While the activities related to infrastructure development and installation of new observation equipment will require low-level monitoring, management of environmental and social risks will be a matter of following industry best practice. As a mitigation measure, it is recommended that all contractors involved are made aware of their environmental and social responsibilities, and that professional oversight is engaged where necessary in order to ensure that those responsibilities are upheld.	
NMHS staff depart after being trained	• Organizational	High	Possible	Major	To mitigate the risk of the staff departing, the Investment Phase will work on providing additional incentives for the staff including regular opportunities for regional trainings and workshops. It is recommended that the Compliance phase includes budget to cover salaries for the new staff, as well as to cover participation in some of the trainings and workshops which would contribute to the staff wellbeing.	
Slow implementation and delays in procurement, installation and capacity building activities	• Operational	Low	Unlikely	Minor	Seamless collaboration between the Implementing Entity, peer advisor, beneficiary country and technical partners will help to ensure that the project activities are executed without any delays.	
After the conclusion of the Investment phase, GBON data are not collected or shared or are shared of insufficient quality	• Organizational	Medium	Rare	Moderate	The Investment Phase will include budget operations and maintenance of the equipment to ensure that GBON Infrastructure has been installed and internationally exchanges data. This will also help in smooth transition to the compliance phase. After this the country will receive SOFF support in the compliance phase which will help to ensure that all the equipment is properly functioning and sharing data. In addition, trainings held during the Investment Phase will help to ensure that the beneficiary country has the capacity to manage quality of the data.	

Destruction or theft of SOFF-financed equipment and infrastructure	• Organizational	Medium	Unlikely	Moderate	The Investment Phase will ensure that all the observation sites will be fenced and guarded to minimize the risk of theft. However, given that Maldives is very vulnerable to the impacts of climate change and might be subject to climate-related disasters, there is a risk that the equipment will be destroyed by a natural hazard. The project will support Standard Operating Procedures (SOPs) for equipment, including early action protocols in case of climate-related hazards. Mitigation measures will be taken as a part of site preparation. The budget for the GBON equipment procurement will also cover additional equipment needed to safeguard against the climate-related hazards (such as sheltering, protective covers and clothes, torches etc) to the extent possible.	
Countries cannot make optimal use of data, including accessing or using improved forecasts products from the Global Producing Centers throughout the hydromet value chain	• Organizational	Medium	Unlikely	Moderate	To mitigate the risk, it is proposed that the Investment Phase includes extensive and comprehensive training for the MMS staff from the peer advisor and technical partners, including on observations, data management, data processing and impact-based forecasting. This will help to ensure that the country has enough capacity to make the optimal use of data, including accessing or using improved forecasts products from the Global Producing Centers throughout the hydromet value chain.	

Budget by UNSDG Categories: Over all

Budget Lines	Description	UNEP (7%) *	WMO (7%) *	Total
1. Staff and other personnel		$500,800.00	$0.00	$500,800.00
2. Supplies, Commodities, Materials		$0.00	$0.00	$0.00
3. Equipment, Vehicles, and Furniture, incl. Depreciation		$0.00	$0.00	$0.00
4. Contractual services		$0.00	$0.00	$0.00
5. Travel		$180,600.00	$0.00	$180,600.00
6. Transfers and Grants to Counterparts		$3,281,366.00	$440,000.00	$3,721,366.00
7. General Operating and other Direct Costs		$183,520.00	$0.00	$183,520.00
Project Costs Sub Total		**$4,146,286.00**	**$440,000.00**	**$4,586,286.00**
8. Indirect Support Costs		$290,240.02	$30,800.00	$321,040.02
Total		**$4,436,526.02**	**$470,800.00**	**$4,907,326.02**

Performance-based Tranches Breakdown

Tranche			Total
Tranche 1	UNEP (90%)	$3,992,873.40	$4,149,791.04
	WMO (33.33%)	$156,917.64	
Tranche 2	UNEP (10%)	$443,652.60	$600,570.24
	WMO (33.33%)	$156,917.64	
Tranche 3	UNEP (0%)	$0.00	$156,964.72
	WMO (33.34%)	$156,964.72	
			$4,907,326.00

Results based budget

Outcome *	Output *	Agency *	Budget (USD) *

1. GBON institutional and human capacity developed		**Sub Total**	**$2,946,136.00**
	1.1 National consultations including with CSOs, and other relevant stakeholders conducted.	UNEP (7%)	$408,470.00
	1.2 NMHS institutional capacity required to operate the GBON network developed.	UNEP (7%)	$340,996.00
	1.3 NMHS human capacity required to operate the GBON network developed.	UNEP (7%)	$1,756,670.00
	1.3 NMHS human capacity required to operate the GBON network developed.	WMO (7%)	$440,000.00
2. GBON infrastructure in place		**Sub Total**	**$845,150.00**
	2.1 New land-based stations and related equipment, ICT systems, data management systems and standard operating practices in place.	UNEP (7%)	$110,050.00
	2.2 Improved land-based stations and related equipment, ICT systems, data management systems and standard operating practices in place	UNEP (7%)	$273,050.00
	2.4 Improved upper-air stations, related equipment, ICT systems, data management systems and standard operating practices in place.	UNEP (7%)	$462,050.00
3. Sustained compliance with GBON		**Sub Total**	**$795,000.00**
	3.1 GBON land-based stations' commissioning period completed.	UNEP (7%)	$75,000.00
	3.2 GBON upper air stations' commissioning period completed.	UNEP (7%)	$720,000.00
Total			**$4,586,286.00**

Budget per Gender (GEWE)

	UNEP	**WMO**	**Total $**
$ Towards GEWE	**$0.00**	**$0.00**	**$0.00**
% Towards GEWE			**0.00%**

Programme Outcome Costs

Outcome	**Output**	**Activity**	**Implementing Agent**	**Time Frame**					
				2024	**2025**	**2026**	**2027**	**2028**	**2029**
				1	**1**	**1**	**1**	**1**	**1**
1. GBON institutional and human capacity developed									
	1.1 National consultations including with CSOs, and other relevant stakeholders conducted.								
		1.1.1. Conducting face-to-face inception workshops engaging multiple stakeholders (including CSO and private sector)							
			UNEP	☑	☑	☑	☑	☑	☐
		1.1.2. Conducting stakeholder engagement workshops on implementation of the project deliverables (observations data exchange to support weather/climate and water services and products)							
			UNEP	☐	☑	☑	☑	☑	☐
		1.1.3. Conducting high level dialogues on benefits, co-production, and ownership of the new national GBON infrastructure							
			UNEP	☑	☐	☐	☐	☑	☐
		1.1.4. Conducting gender workshops to strengthen gender equality in governance, strategy, programmes, and decision making, and facilitate grounds for developing gender policy							
			UNEP	☐	☑	☑	☐	☐	☐
	1.2 NMHS institutional capacity required to operate the GBON network developed.								
		1.2.1. Drafting an Organizational Strategy, that will clearly outline the action plan for how the MMS will achieve its short and long-term goals and become GBON compliant							
			UNEP	☐	☑	☑	☑	☐	☐
		1.2.2. Drafting a new organizational Gender Policy, with specific actions that are measurable and regularly monitored, that are based on the WMO Gender Action Plan							
			UNEP	☐	☐	☑	☑	☐	☐
		1.2.3. Establishing a stakeholder engagement plan for more systematic engagement of various stakeholders including private sector and CSOs							
			UNEP	☐	☑	☐	☐	☐	☐
	1.3 NMHS human capacity required to operate the GBON network developed.								
		1.3.1. Benchmarking and developing an observation process of upper-air sounding (supported by peer adviser)							

Outcome	Output	Activity	Implementing Agent	Time Frame					
				2024	2025	2026	2027	2028	2029
				1	1	1	1	1	1
			WMO	☐	☐	☐	☐	☐	☐
		1.3.2. Benchmarking good practices on archiving, transfer, and QC/QA, and subsequent SOPs as well as roadmap for QC/QA methods developed (supported by peer adviser)							
			WMO	☐	☐	☐	☐	☐	☐
		1.3.3. Training on upper-air system (basic level) and surface weather station (advanced/supplementing) operation and maintenance (vendor, supported by peer adviser)							
			WMO	☐	☐	☐	☐	☐	☐
		1.3.4. Benchmarking mature project and portfolio management and coordination culture (supported by peer adviser)							
			WMO	☐	☐	☐	☐	☐	☐
		1.3.5. Recruitment of new technical, IT staff and project management staff for 5 years of the Investment Phase							
			UNEP	☑	☑	☑	☑	☑	☑
		1.3.6. Participation in regional and international seminars, meetings, forums, workshops and trainings related to data processing, instrumentation, calibration and all SOFF and GBON related activities (e.g., those provided by Regional WIGOS Centre RA II)							
			UNEP	☑	☑	☑	☑	☑	☑
		1.3.7. Refresher training program on observations, WIS 2.0, WMO station meta data, database and climate data processing quality control and archival process, data assimilation in NWP modelling, instrument calibration and maintenance training programs.							
			UNEP	☑	☑	☑	☑	☑	☐
2. GBON infrastructure in place									
	2.1 New land-based stations and related equipment, ICT systems, data management systems and standard operating practices in place.								
		2.1.1. Procurement and installation of sensors and logger in 1 new surface weather station, including relevant civil works for station establishment.							
			UNEP	☐	☑	☐	☐	☐	☐
		2.1.2. Training of operational staff members by vendor							
			UNEP	☐	☑	☑	☐	☐	☐
		2.1.3. Supplementary costs for IT infrastructure, including hardware and software							
			UNEP	☐	☑	☑	☐	☐	☐
	2.2 Improved land-based stations and related equipment, ICT systems, data management systems and standard operating practices in place								
		2.2.1. Procurement and installation of sensors and logger in 4 surface weather stations, including relevant civil works for station rehabilitation/renewal							
			UNEP	☐	☑	☐	☐	☐	☐
		2.2.2. Training of operational staff members by vendor							
			UNEP	☐	☑	☑	☐	☐	☐
		2.2.3. Supplementary costs for IT infrastructure, including hardware and software							
			UNEP	☐	☑	☑	☐	☐	☐
	2.4 Improved upper-air stations, related equipment, ICT systems, data management systems and standard operating practices in place.								
		2.4.1. Procurement and installation of one manual upper-air measurement system including ground receiving system, UPS, hydrogen generator, consumables for one year							
			UNEP	☐	☐	☑	☐	☐	☐
		2.4.2. Renovation of the facilities and relevant civil works for the rehabilitation/renewal of the station							
			UNEP	☐	☐	☑	☐	☐	☐
		2.4.3. Supplementary costs for IT infrastructure, including hardware and software							
			UNEP	☐	☐	☑	☑	☐	☐
3. Sustained compliance with GBON									
	3.1 GBON land-based stations' commissioning period completed.								
		3.1.1. Maintenance and calibration of land-based stations of four-year period. Includes field calibrations and outsourcing laboratory calibrations from BMKG							
			UNEP	☐	☐	☑	☑	☑	☑
		3.1.2. Supply of spare parts for the surface stations							
			UNEP	☐	☐	☑	☑	☑	☑
	3.2 GBON upper air stations' commissioning period completed.								
		3.2.1. Manual upper-air measurement system consumables for 4 years of investment phase							

Outcome	Output	Activity	Implementing Agent	Time Frame					
				2024	2025	2026	2027	2028	2029
				1	1	1	1	1	1
			UNEP	☐	☐	☑	☑	☑	☑

Signatures

UNEP: UNEP (United Nations Environment Programme) (Digital) Mr Jochem Zoetelief Head, Climate Early Warning and Capacity Building Unit jochem.zoetelief@un.org	**SIGNATURE:** Jochem Zoetelief **DATE:** 19-03-2024
WMO: WMO (World Meteorological Organization) (Digital) Celeste Saulo Secretary General csaulo@wmo.int	**SIGNATURE:** Andrea Celeste Saulo **DATE:** 22-03-2024