



General Information

Fund	MPTF_00281: The Systematic Observations Financing Facility					
FMP Record	MPTF_00281_00023: Timor-Leste Investment Funding Request					
MPTFO Project Id	00141088					
Start Date	25-Mar-2025					
End Date	25-Mar-2030					
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Description	<p>Timor-Leste is a Least Developed Country (LDC) and a Small Island Developing State (SIDS) which is in the process of re-building its government systems and infrastructure after 25 years of conflict. Climate change — manifested through rising mean temperature, warming and rising sea level, ocean acidification and deoxygenation, less predictable and more extreme rainfall, tropical cyclones, flooding, landslides and prolonged droughts—presents serious challenges to Timor-Leste’s development and risks to lives, livelihoods, health, biodiversity, food security, water supply and economic growth.</p> <p>Climate and weather-related information in Timor-Leste are provided by the National Directorate of Meteorology and Geophysics of Timor-Leste (DNMG). According to the Country Hydromet Diagnostic, the overall capacity of DNMG averages between 1 and 2 (out of 5) which is quite low. At the moment, UNEP is implementing a GCF-funded project in “Enhancing Early Warning Systems to build greater resilience to hydro-meteorological hazards in Timor-Leste” which is helping to transform Timor-Leste’s climate information capabilities and early warning systems which are vital to the country’s response to climate change. However, SOFF support is critical to address several gaps and needs in DNMG preventing GBON compliance in the long term, as well as to sustain some of the outcomes of the GCF-funded project that are of relevance to GBON.</p> <p>The project will address these needs through:</p> <ul style="list-style-type: none"> • Strengthening meteorological network, including upgrade of existing 1 surface-based station and installation of 1 new 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 DNMG, including drafting a new data policy to strengthen cooperation and data sharing between DNMG and other stakeholders in Timor-Leste and supporting regional engagement with the neighbouring countries, including to improve data sharing at the regional level; • Organizing stakeholder engagement workshops and maintaining the yearly National Climate Outlook Forum (NCOF) established under the GCF-funded project; • Recruitment of new technical, IT and project management staff for 5 years of project implementation; • Supporting substantial technical training and capacity development activities for DNMG staff; • Supporting operations and maintenance of the equipment, including 9 automated weather stations installed under the GCF-funded project. <p>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 National Directorate of Meteorology and Geophysics (DNMG) will serve as the national Executing Entity (EE). The DNMG 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 DNMG, 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). The peer advisor Finnish Meteorological Institute (FMI) will also continue to be engaged.</p>			
Universal Markers	Gender Equality Marker	Risk		
	<ul style="list-style-type: none"> • GEM1 - The Key Activity contributes to GEWE in a limited way 	<ul style="list-style-type: none"> • Medium Risk 		
Optional Markers	WB Income Category	<ul style="list-style-type: none"> • Low Income 		
	UN LDC	<ul style="list-style-type: none"> • Yes 		
	Small Island Developing States (SIDS)	<ul style="list-style-type: none"> • Yes 		
Fund Specific Markers	SOFF Phases	SOFF Phases <ul style="list-style-type: none"> • Investment Phase 		
	EW4All	Early Warnings for All initial focus countries <ul style="list-style-type: none"> • No 		
	Fragile and conflict-affected situation	Fragile and conflict-affected situation <ul style="list-style-type: none"> • Yes 		
	Peer advisor	Peer advisor <ul style="list-style-type: none"> • Finnish Meteorological Institute (FMI) [Finland] 		
Geographical Scope	Geographical Scope	Name of the Region	Region(s)	Country
	<ul style="list-style-type: none"> • Country 		<ul style="list-style-type: none"> • Asia 	<ul style="list-style-type: none"> • Timor-Leste

Participating Organizations and their Implementing Partners	UN Participating Organizations	Government/ Multilateral/ NGO/ Other	New Entities	Implementing Partners		
	<ul style="list-style-type: none"> • UNEP - UNEP (United Nations Environment Programme) • WMO - WMO (World Meteorological Organization) 					
Programme and Project Cost	Participating Organization	Amount (in USD)	Comments			
	Budget Requested					
	UNEP	\$5,364,692.17				
	WMO	\$392,050.14				
	Total Budget Requested	\$5,756,742.31				
	Tranches					
	Tranche 1		Tranche 2		Tranche 3	
	UNEP (90%)	\$4,828,222.95	UNEP (10%)	\$536,469.22	UNEP (0%)	\$0.00
	WMO (33.33%)	\$130,670.31	WMO (33.33%)	\$130,670.31	WMO (33.34%)	\$130,709.52
	Total:	\$4,958,893.26	Total:	\$667,139.53	Total:	\$130,709.52
Other Sources (Parallel Funding)						
Total	\$5,756,742.31					
Thematic Keywords						
Programme Duration	Anticipated Start Date	03-Feb-2025				
	Duration (In months)	60				
	Anticipated End Date	03-Feb-2030				

Narratives

Title	Text
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Close the most significant data gaps

Based on the WMO Global Basic Observing Network (GBON) Global Gap Analysis and GBON National Contribution Target, to meet the GBON standard density requirements there is a need to improve 1 surface station and install one automatic upper-air sounding station in Timor-Leste.

In addition, there is an ongoing Green Climate Fund (GCF)-funded project [“Enhancing Early Warning Systems to Build Greater Resilience to Hydrometeorological Hazards in Timor-Leste”](#) (2022-2027) (UNEP GCF FP-171) implemented by UNEP under which 9 Automated Weather Stations (AWS) are being installed to establish a higher-resolution network in Timor-Leste necessitated by its extremely mountainous topography. This project had been approved by the GCF board late 2021 with SOFF being indicated as a critical component of its sustainability strategy ([section “B.6. Exit Strategy and Sustainability”](#)) following the advice from the WMO representatives during the project development stage. Therefore, this project requests SOFF support for continuous maintenance and calibration of these additional 9 AWSs, which will help maintain sustainability of the GCF investments, as well as largely benefit the global and regional numerical weather prediction models.

Furthermore, to ensure data transmission to [WMO Information System 2.0 \(WIS 2.0\)](#) - a new framework for data sharing introduced by the WMO to gradually replace [Global Telecommunications System \(GTS\) / WMO Information System 1.0](#) (WIS 1.0, also known as WIS)- there is a need to upgrade the ICT infrastructure as described in the GBON National Contribution Plan (Annex 2), as well as upscale the data ingestion module of the Climate Data Informatics System (CDIS) which is being installed under the GCF-funded project. This upscale would include:

- Code expansion to:

- Accommodate integration of other data sources,
- Ensure validation and data quality assurance,
- Properly route data captured to data consumer or storage;

- Creation/updating of mechanisms to ingest data depending on the data source: application programming interface (API), upload, manual input, messages from text, email, etc;

- Expansion of monitoring and management, including reports generation and health report of assets and system.

In addition, since WMO Information System 2.0 (WIS 2.0) uses public internet (unlike GTS which uses private dedicated links), implementation of WIS 2.0 requires stable high-speed internet connectivity (10 Gigabit or more). This is currently unavailable at the Timor-Leste’s National Directorate of Meteorology and Geophysics (DNMG), which is the national hydrometeorological service in Timor-Leste. Therefore, additional support is required to procure and install reliable power supply (e.g., solar panels) and internet connectivity (e.g., Very Small Aperture Terminal (VSATs)* , cable, satellite, towers). This need and the related budget has been identified as a part of the National Framework for Climate Services (NFCS) developed through the UNEP GCF-funded project using a [standard methodology approved by the WMO](#). However, this project only requests a half of the required budget to only accommodate the telecommunications needs that are relevant to GBON.

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

Table 1. GBON National Contribution Target Type of station Baseline (Results of the GBON National Gap Analysis)

*VSAT (Very Small Aperture Terminal) is a two-way satellite ground station with a dish antenna that is smaller than 3.8 meters.

**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.

<p>Target easy fixes</p>	<p>One of the main easy fixes would be to upgrade Climate Data Informatics System (to be installed under the GCF-funded project “Enhancing Early Warning Systems to Build Greater Resilience to Hydrometeorological Hazards in Timor-Leste”) to enable data transmission to WIS 2.0. Other easy fixes include continuous support for maintenance and calibration of 9 Automated Weather Stations (AWS) installed under the UNEP GCF FP-171 project, which would be critical to ensure the sustainability of the GCF investments as per the sustainability strategy of the UNEP GCF FP-171 project approved by the Board of the Green Climate Fund (GCF) following advice from WMO representatives during the project development stage. Support for maintenance and calibration of 9 AWS would also help to ensure accurate weather and climate forecasting in Timor-Leste in the context of its extreme mountainous topography.</p>
<p>Create leverage</p>	<p>SOFF investments will largely build upon, complement and ensure the sustainability of the GCF-funded project “Enhancing Early Warning Systems to Build Greater Resilience to Hydrometeorological Hazards in Timor-Leste” (2022-2027)” (UNEP GCF FP-171) which aims to comprehensively strengthen climate information and early warning systems in Timor-Leste.</p> <p>For example, UNEP GCF FP-171 provides comprehensive support and training for data transmission to WMO Information System 1.0 (WIS 1.0) / Global Telecommunication System (GTS), as well as significantly enhances the overall ICT infrastructure of DNMG, however, it does not cover the WMO Information System 2.0 (WIS 2.0) component, which is where the SOFF investments could be largely complimentary. WMO Information System 2.0 has been designed to meet the shortfalls of the current WIS and GTS, support the WMO’s Unified Data Policy and the Global Basic Observing Network (GBON), and meet the demand for high data volume, variety, velocity, and veracity. Another significant gap that SOFF funding would be able to fill is upper-air observations, which are not covered under the UNEP GCF FP-171 project. SOFF funding could also largely complement and expand capacity development activities under the GCF-funded project. For example, while UNEP GCF FP-171 project already supports some trainings for operations and maintenance, the SOFF project also needs to support implementation of standard operating procedures for the maintenance of the stations, provide comprehensive trainings on calibration, enhance the entire process of competence building in DNMG, etc. Regarding staffing, one of the key challenges in Timor-Leste is frequent departure of educated and professional people. To avoid that, SOFF support will be requested to support salary payments to 4 meteorological technicians recruited under the GCF-funded project after the project termination to ensure stable working conditions. Finally, SOFF investments are critical to ensure sustainability of the 9 AWS installed under the UNEP GCF FP-171, as per the project’s sustainability strategy developed following the advice from the WMO representatives during and approved by the GCF board.</p> <p>In addition to GCF, the Least Developed Countries Fund (LDCF) operated by the GEF also provided support to Timor-Leste to build climate resilience through two closely connected projects. However, those mostly related to constructing climate-resilient infrastructure and engaging communities for building resilience, hence, they are of less relevance to GBON.</p> <p>Timor-Leste is also expected to receive Climate Risk and Early Warning Systems (CREWS) support under the Accelerated Support Window to strengthen disaster risk knowledge based on the systematic collection of data and disaster risk assessment. However, since the core focus of this initiative will be to strengthen data collection on disaster risk losses and strengthen people-centred early warning systems, it will not overlap with SOFF funding.</p>

<p>Maximize delivery capacity</p>	<p>UNEP has strong expertise and experience in supporting climate information and early warning systems in Timor-Leste. It is currently implementing a GCF-funded 5-year project "Enhancing Early Warning Systems to build greater resilience to hydro-meteorological hazards in Timor-Leste" (UNEP GCF FP-171). Through this project, UNEP has established productive and efficient working relations with DNMG, as well as other relevant national stakeholders (Ministry of Agriculture and Fisheries, National Disaster Management Directorate (NDMD) and others). Through the project, UNEP has also engaged and closely worked with a range of technical partners with strong expertise and experience of work in Timor-Leste, which will continue to be involved in the SOFF project (including Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES) and the Agency for Meteorology, Climatology, and Geophysics of the Republic of Indonesia (Badan Meteorologi, Klimatologi, dan Geofisika - BMKG)). SOFF investments will largely build on and complement the existing GCF project implemented by UNEP, maximizing delivery capacity.</p> <p>The peer advisor Finnish Meteorological Institute (FMI) has not been involved in any other projects in Timor-Leste, however, it has a long-lasting and extensive experience in working worldwide in many hydro-meteorological development projects in over 100 countries including small island developing states (SIDS) (e.g. in the Caribbean region (Strengthening Hydrometeorological Operations and Services in Caribbean SIDS II (SHOCS II) and the Pacific region (Finnish-Pacific Project to Reduce Vulnerability of the Pacific Island Countries' livelihoods to the effects of Climate Change - FINPAC)). FMI will continue to be engaged in the Investment Phase as a peer advisor providing a range of services as per the Annex 4. For implementation of SOFF readiness phase FMI has sub-contracted BMKG which has extensive experience of providing support to Timor-Leste, including on the basis of the Memorandum of Understanding (MoU) signed in 2016 with Timor-Leste's Ministry of Public Work, Transport and Communication (under which the DNMG operates). This MoU regulates collaboration between the governments of Indonesia and Timor-Leste regarding consultations on calibration of meteorological and seismological equipment, human resource development, exchange of data and information in the field of meteorology, climatology and geophysics. BMKG will continue to be engaged in the Investment Phase as a technical partner.</p>
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<p>Sub-regional gains</p>	<p>Sub-regional collaboration plays an important role for DNMG. Timor-Leste largely benefits from climate services provided by the neighbouring countries (including maritime forecasts, earthquake information and impact-based forecasts from BMKG; tropical cyclone advisory from Australian Bureau of Meteorology (BoM), etc). BMKG is providing multiple trainings to DNMG (including through the UNEP GCF FP-171 project), while BoM is responsible for provision of services for aviation. Existence of GBON-compliant stations in Indonesia and Australia also supports the DNMG's activities. Still, there are many more opportunities of sub-regional collaboration which could be leveraged with the SOFF support.</p> <p>1. Improved data sharing</p> <p>Currently Timor-Leste does not share any data internationally due to the lack of appropriate policies and infrastructure. UNEP GCF FP-171 will facilitate global data sharing through WIS/GTS, and the SOFF project will ensure that data is sent to WIS2.0. However, with SOFF support, data sharing could also be improved at the regional level. For example, if there is interest from other countries in the region, SOFF could support convening regional meetings and workshops which could facilitate bilateral and multilateral data sharing agreements.</p> <p>2. Upper-air radio sounding</p> <p>SOFF will facilitate installation of the first radio-sounding system in Timor-Leste. This means that sharing experience and expertise with peers such as BMKG will be very important and strongly recommended during the investment phase. SOFF support would be required to facilitate relevant capacity building activities, including benchmarking and developing an observation process of upper-air sounding, basic training on the upper-air system operations and maintenance, etc.</p> <p>3. Calibration support from BMKG</p> <p>In 2016, Timor-Leste's Ministry of Public Work, Transport and Communication (under which DNMG operates) signed a Memorandum of Understanding (MoU) with BMKG, which regulates collaboration between the two countries on calibration of meteorological equipment, human resource development, as well as exchange of data and information about meteorology, climatology and geophysics. Furthermore, as an established WMO Regional Training Centre, BMKG also delivers training and capacity building in meteorology, hydrology and related sciences to fulfil the needs of the RA II (Asia) and RA V (South-West Pacific) regions.</p> <p>Due to the low overall capacity of DNMG, at this stage it is not recommended for DNMG to construct its own calibration lab. Instead, in line with the MoU mentioned above, it is recommended that BMKG calibrates surface stations in Timor-Leste using field calibration kits procured under the GCF-funded project and further supported by SOFF funds. This equipment, in its turn, should be regularly recalibrated at the BMKG facilities in Indonesia.</p> <p>Furthermore, BMKG will provide comprehensive trainings on calibration to DNMG staff to ensure that DNMG can carry out calibration more independently and sustainably in the future. In the future, construction of a separate calibration laboratory can also be explored in Timor-Leste.</p>
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<p>SOFF Beneficiary Country Capacity Assessment</p>	<p>According to the Country Hydromet Diagnostic (Annex 3), the overall capacity of the National Directorate of Meteorology and Geophysics of Timor-Leste (DNMG) averaged across 10 elements ranks between 1 and 2 (out of 5), which is quite low. While UNEP GCF FP-171 focused on enhancing the overall capacity of Timor-Leste for climate information and early warning systems to build climate resilience, SOFF support is critical to address several gaps and needs in DNMG preventing GBON compliance in the long term.</p> <p>First, the institute requires middle and long-term strategic planning to finance and develop its activities and services. For this, managerial personnel need specific training on strategic planning, as well as mid-and long-term financial planning.</p> <p>Second, there is a shortage of technical staff in DNMG. There are not enough ICT experts to maintain the data network and enable data transmission to WIS2.0. In addition, 4 meteorological technicians recruited under the GCF-funded project have short-term contracts, which need to be extended to ensure motivation of staff as well as to reduce the turnover rate of staff. Finally, since Timor-Leste is new to upper-air observations, there is a need to recruit dedicated staff for its maintenance. Stable work conditions and fair salaries for the institute's employees need to be secured to avoid staff departing from DNMG. Therefore, SOFF support is requested to: (1) maintain salaries for 4 technicians recruited under the GCF project, (2) recruit one dedicated expert for upper-air observations and maintenance (3) recruit 3 ICT staff with different qualifications and responsibilities (as outlined in the GBON National Contribution Plan). There is also a need for substantial technical capacity building activities, especially related to operations and maintenance of surface and upper-air stations, calibration, data collection and management, and WIS2.0.</p> <p>Furthermore, DNMG currently does not have any data policy, which prevents internal data sharing and the usage of weather and data by the national stakeholders. For data provision, different institutes in Timor-Leste signed an MoU for cooperation, however, this has demonstrated to be inefficient and has not guaranteed cooperation. Therefore, SOFF support is requested to develop proper data-sharing policies to promote internal cooperation and data sharing between the different stakeholders. SOFF support could also facilitate data sharing agreements at the regional level.</p> <p>Finally, SOFF support would be requested to strengthen engagement of the private sector and CSOs in climate services. This could be achieved through maintaining the National Climate Outlook Forum (NCOF) established through the UNEP GCF FP-171 to (1) provide a facilitated forum for DNMG to obtain feedback on how effectively its products and services are meeting the needs of user communities, (2) build dialogue between climate service users (including government agencies, NGOs, private sector representatives, civil society organisations, women's groups and community representatives) and technical institutions responsible for the observation, reach and information system pillars of the National Framework for Climate Services (NFCS) – in particular, DNMG, (3) support improved climate literacy in the user community and literacy of the climate community in user needs, (4) provide a mechanism to monitor and evaluate the development, delivery and effectiveness of climate services in Timor-Leste to ensure that products and services meet the needs of stakeholders.</p>
<p>Investment Phase Alignment with the GBON National Contribution Plan</p>	<p>Upon further consultations with the DNMG it has been agreed that SOFF support is requested to maintain positions of 4 meteorological technicians recruited under the GCF project rather than 2 ICT experts as mentioned in the NCP.</p>

<p>Execution model and implementation arrangements</p>	<p>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.</p> <p>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 partnership with United Nations Office for Project Services (UNOPS), UNEP is able to operate at the country level without necessarily having a national office. The UNEP-UNOPS Agreement typically 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 Timor-Leste will contribute to effectiveness, coordination, and sustainability of outcomes.</p> <p>The National Directorate of Meteorology and Geophysics (DNMG) will serve as the national Executing Entity (EE). The DNMG 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 DNMG 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.</p> <p>Upon further consultations with DNMG, UNEP in its executing role could 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), the Timor-Leste Red Cross, Agency for Meteorology, Climatology, and Geophysics of the Republic of Indonesia (Badan Meteorologi, Klimatologi, dan Geofisika – BMKG) and others. 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.</p>
<p>Private sector involvement</p>	<p>Currently private sector engagement in climate services in Timor-Leste is quite low. UNEP GCF FP-171 project contains several interventions that will emphasise and support private sector mobilisation. The project establishes the National Framework for Climate Services (NFCS) which aims to coordinate, facilitate and strengthen collaboration among national institutions for enhanced use of climate information and provision of climate services in Timor-Leste. National Climate Outlook Forum (NCOF) as a part of the NFCS will aim to strengthen dialogue and widen partnerships between the public and private sector, thereby creating an enabling environment for public-private collaboration and mutually beneficial cost-recovery mechanisms. The project will also identify opportunities for specialised climate information and early warning products with commercial value to catalyse private sector interest. Moreover, the project will establish a new financial framework and business model for sustainable climate services which will scope viable opportunities for sectors and business segments to utilise the strengthened climate services and identify opportunities to develop value-added climate products and services; and potential for public-private partnerships and private investment in climate services. In developing the framework, the project will identify suitable revenue streams and effective strategies to incentivise and mobilise private sector resources.</p> <p>SOFF investments could play a critical role in ensuring sustainability of GCF funding aimed at enhancing private sector engagement in climate services in Timor-Leste, as well as expanding it further. More specifically, SOFF support would be needed to:</p> <ul style="list-style-type: none"> • Maintain the yearly National Climate Outlook Forums (NCOF) after the termination of the GCF project to support private sector engagement; • Facilitate private sector consultations that focus on what sector-specific products/services DNMG could provide if sufficient observations data was available, with the aim of looking at where the private sector might wish to invest to fill data gaps. <p>Nevertheless, even though there is an aim to spur private sector interest in the climate information products, cost-recovery strategies involving private sector are still not considered feasible, therefore it is recommended that Timor-Leste maintains fully public business model.</p>

<p>Civil society participation</p>	<p>Multiple efforts are held under the UNEP GCF FP-171 to engage civil society organisations in the provision of early warning services relating to climate change, e.g. as a part of the National Climate Outlook Forum (NCOF). Therefore, through maintaining the NCOF, SOFF investments will facilitate not only private sector but also civil society engagement.</p> <p>In addition to that, the following activities will be undertaken to ensure that the CSOs are regularly consulted during the entire length of the programme cycle:</p> <ul style="list-style-type: none"> • Conducting stakeholder engagement workshops on the implementation of the SOFF project deliverables engaging, where possible, local civil society organisations (CSOs) and ensuring that the stakeholders are consulted on operations and maintenance. • Organising awareness-raising activities for the community (for example, by engaging the Red Cross), i.a. to prevent vandalism. • Organising high level dialogues on benefits, co-production, and ownership of the new national GBON infrastructure. <p>The project will also aim to strengthen gender balance in climate services in Timor-Leste through the following gender-related targets:</p> <ul style="list-style-type: none"> • Stakeholders' engagement activities that involve CSOs will target 49% female participation (based on the World Bank data, as of 2022, women constituted 49% of the population of Timor-Leste), • Women should represent at least 20 % of all participants in SOFF-related and supported training events.
<p>Fiduciary systems</p>	<p>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.</p> <p>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.</p> <p>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.</p> <p>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 National Directorate of Meteorology and Geophysics (DNMG) under the Ministry of Transport and Communication, as the national EE follows the Government of Timor-Leste's financial and procurement rules. Similarly, Technical Partners and the Peer Advisor supporting execution in Timor-Leste (including e.g., RIMES, BMKG and FMI), are subject to financial and procurement policies of their governments/Member States.</p>

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.' 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	<p>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.</p> <p>UNEP's Stakeholder Response Mechanism (SRM) is established through the Independent Office for Stakeholder Safeguard-related Response (IOSSR). The IOSSR serves two functions:</p> <ol style="list-style-type: none"> 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. <p>The IOSSR is responsible for the SRM, and thus carries out the following responsibilities:</p> <ul style="list-style-type: none"> • 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. <p>Complaints can be filed to the Stakeholder Response Mechanism through the online project concern form, email or mail to the following address:</p> <p>Independent Office for Stakeholder Safeguard-related Response (IOSSR) & Director of Corporate Service Division</p> <p>United Nations Environment Programme</p> <p>Nairobi, Kenya</p> <p>Email: unenvironment-IOSSR@un.org</p> <p>Details are available in the UNEP's SRM Operating Procedures.</p>
Additional relevant policies and procedures	As part of the 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	

Target	Description
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_13.2	% TARGET_13.3	% TARGET_13.b	% TARGET_5.5	% 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

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																														
	<p>Activities</p> <table border="1"> <thead> <tr> <th data-bbox="686 228 905 373">Title</th> <th data-bbox="905 228 1182 373">Description</th> <th data-bbox="1182 228 1392 373">Lead Participating Organization</th> <th data-bbox="1392 228 1583 373">Participating Organization</th> <th data-bbox="1583 228 1791 373">Other Organizations</th> </tr> </thead> <tbody> <tr> <td data-bbox="686 373 905 893">Face-to-face inception workshop followed by subsequent stakeholder engagement workshops on the implementation of the SOFF project deliverables</td> <td data-bbox="905 373 1182 893"></td> <td data-bbox="1182 373 1392 893">UNEP - UNEP (United Nations Environment Programme)</td> <td data-bbox="1392 373 1583 893"></td> <td data-bbox="1583 373 1791 893"></td> </tr> <tr> <td data-bbox="686 893 905 1264">Organising high-level and end user-level engagement events to support SOFF implementation and operation in Timor-Leste</td> <td data-bbox="905 893 1182 1264"></td> <td data-bbox="1182 893 1392 1264">UNEP - UNEP (United Nations Environment Programme)</td> <td data-bbox="1392 893 1583 1264"></td> <td data-bbox="1583 893 1791 1264"></td> </tr> <tr> <td data-bbox="686 1264 905 1561">Organizing awareness raising activities for the community, i.a. to prevent vandalism</td> <td data-bbox="905 1264 1182 1561"></td> <td data-bbox="1182 1264 1392 1561">UNEP - UNEP (United Nations Environment Programme)</td> <td data-bbox="1392 1264 1583 1561"></td> <td data-bbox="1583 1264 1791 1561"></td> </tr> <tr> <td data-bbox="686 1561 905 1739">Maintaining the yearly National Climate Outlook Forum (NCOF)</td> <td data-bbox="905 1561 1182 1739"></td> <td data-bbox="1182 1561 1392 1739">UNEP - UNEP (United Nations Environment Programme)</td> <td data-bbox="1392 1561 1583 1739"></td> <td data-bbox="1583 1561 1791 1739"></td> </tr> <tr> <td data-bbox="686 1739 905 2297">Conducting private sector engagement/ consultations that focus on the sector-specific products/ services that DNMG could provide and the potential for private sector investments</td> <td data-bbox="905 1739 1182 2297"></td> <td data-bbox="1182 1739 1392 2297">UNEP - UNEP (United Nations Environment Programme)</td> <td data-bbox="1392 1739 1583 2297"></td> <td data-bbox="1583 1739 1791 2297"></td> </tr> </tbody> </table>	Title	Description	Lead Participating Organization	Participating Organization	Other Organizations	Face-to-face inception workshop followed by subsequent stakeholder engagement workshops on the implementation of the SOFF project deliverables		UNEP - UNEP (United Nations Environment Programme)			Organising high-level and end user-level engagement events to support SOFF implementation and operation in Timor-Leste		UNEP - UNEP (United Nations Environment Programme)			Organizing awareness raising activities for the community, i.a. to prevent vandalism		UNEP - UNEP (United Nations Environment Programme)			Maintaining the yearly National Climate Outlook Forum (NCOF)		UNEP - UNEP (United Nations Environment Programme)			Conducting private sector engagement/ consultations that focus on the sector-specific products/ services that DNMG could provide and the potential for private sector investments		UNEP - UNEP (United Nations Environment Programme)			
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	<p>1.2 NMHS institutional capacity required to operate the GBON network developed.</p>																															

Outcome	Output	Description			
	Activities				
	Title	Description	Lead Participating Organization	Participating Organization	Other Organizations
	Capacity assessment of DNMG as the Executing Entity by the Implementing Entity		UNEP - UNEP (United Nations Environment Programme)		
	Drafting a data policy to strengthen cooperation and data sharing between DNMG and other stakeholders in Timor-Leste		UNEP - UNEP (United Nations Environment Programme)		
Regional engagement with the neighbouring countries, including to improve data sharing at the regional level		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
	Enhancing competence-building process in DNMG		WMO - WMO (World Meteorological Organization)		
	Technical support in radiosounding tender		WMO - WMO (World Meteorological Organization)		
	Technical support in IT hardware tender		WMO - WMO (World Meteorological Organization)		
	Benchmarking portfolio and project management and coordination		WMO - WMO (World Meteorological Organization)		
	Maintaining salaries of 4 meteorological technicians for maintenance of the surface stations		UNEP - UNEP (United Nations Environment Programme)		
	Recruiting 1 meteorological technician for maintenance of the upper-air station		UNEP - UNEP (United Nations Environment Programme)		
	Recruiting 3 ICT experts		UNEP - UNEP (United Nations Environment Programme)		
	Conducting WIS2.0 training and basic programming training throughout the value chain of observation		UNEP - UNEP (United Nations Environment Programme)		
	Strengthening capacity for data collection, quality control, processing and data sharing		UNEP - UNEP (United Nations Environment Programme)		
	Benchmarking and developing an observation process of upper-air sounding		UNEP - UNEP (United Nations Environment Programme)		

Outcome	Output	Description
	Benchmarking good practices on archiving, transfer, and QC/QA, and subsequent SOPs; developing a roadmap for QC/QA methods	UNEP - UNEP (United Nations Environment Programme)
	Training on upper-air system (basic level) and surface weather station (advanced/supplementing) operation and maintenance	UNEP - UNEP (United Nations Environment Programme)
	Trainings on calibration of the equipment for DNMG staff	UNEP - UNEP (United Nations Environment Programme)
	Trainings on the IT system, especially for the new ICT staff	UNEP - UNEP (United Nations Environment Programme)
	Project management	UNEP - UNEP (United Nations Environment Programme)
	Conducting gender workshops to strengthen gender equality in governance, strategy, programmes, and decision making, and facilitate grounds for developing gender policy	WMO - WMO (World Meteorological Organization)
2. GBON infrastructure in place		
	2.2 Improved land-based stations and related equipment, ICT systems, data management systems and standard operating practices in place	

Outcome	Output	Description			
	Activities				
	Title	Description	Lead Participating Organization	Participating Organization	Other Organizations
	Site preparation and upgrade of 1 AWS		UNEP - UNEP (United Nations Environment Programme)		
	Installation of WIS2.0 in a Box and upscaling data ingestion module of Climate Data Informatics System		UNEP - UNEP (United Nations Environment Programme)		
	Procurement and installation of ICT hardware and infrastructure, including storage capacity for WIS2.0 node		UNEP - UNEP (United Nations Environment Programme)		
	Provision of reliable power supply (e.g., solar panels) and internet connectivity (e.g., VSATs, cable, satellite, towers)		UNEP - UNEP (United Nations Environment Programme)		
	2.3 New upper-air stations and related equipment, ICT systems, data management systems and standard operating practices in place.				

Outcome	Output	Description				
	<p>Activities</p>	<p>Title</p>	<p>Description</p>	<p>Lead Participating Organization</p>	<p>Participating Organization</p>	<p>Other Organizations</p>
<p>3. Sustained compliance with GBON</p>						
	<p>3.1 GBON land-based stations' commissioning period completed.</p>					
	<p>Activities</p>	<p>Title</p>	<p>Description</p>	<p>Lead Participating Organization</p>	<p>Participating Organization</p>	<p>Other Organizations</p>
	<p>Procurement and installation of one fully automatic upper-air measurement system including ground receiving system, Uninterruptible Power Supply (UPS), hydrogen generator, and consumables for one year (the balloon will be launched twice a day)</p>			<p>UNEP - UNEP (United Nations Environment Programme)</p>		
	<p>Building required civil infrastructure (e.g., connection to electricity, shelter for hydrogen bottles, room for balloon filling and platform for ground system)</p>			<p>UNEP - UNEP (United Nations Environment Programme)</p>		
	<p>Spare parts and sensors for the AWS network</p>			<p>UNEP - UNEP (United Nations Environment Programme)</p>		
	<p>Maintenance of the AWS network</p>			<p>UNEP - UNEP (United Nations Environment Programme)</p>		
	<p>Yearly calibration of the AWS network</p>			<p>UNEP - UNEP (United Nations Environment Programme)</p>		
	<p>Yearly recalibration of the calibration equipment</p>			<p>UNEP - UNEP (United Nations Environment Programme)</p>		

Outcome	Output	Description			
	3.2 GBON upper air stations' commissioning period completed.				
	Activities				
	Title	Description	Lead Participating Organization	Participating Organization	Other Organizations
	Automatic upper-air measurement system consumables and maintenance of the upper-air sounding station		UNEP - UNEP (United Nations Environment Programme)		
	Vehicle for maintenance of the network		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	Lin Ou / O
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
Number of land-based stations improved		Number of stations as defined in the National Contribution Plan.	Progress updates/Annual or quarterly reports	Investment	At closure	Country	Number	0	2025	1	2027

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year
Number of new upper-air stations installed		Number of stations as defined in the National Contribution Plan.	Progress updates/Annual or quarterly reports	Investment	At closure	Country	Number	0	2025	1	2027
GBON land-based stations' commissioned		Number of stations as defined in the National Contribution Plan.	Progress updates/Annual or quarterly reports	Policy	At closure	Country	Number	0	2025	10	2030
GBON upper air stations' commissioned		Number of stations as defined in the National Contribution Plan.	Progress updates/Annual or quarterly reports	Policy	At closure	Country	Number	0	2025	1	2030

Project Indicators

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year
Number of stakeholder engagement workshops		Number of stakeholder engagement workshops	Progress updates/Annual or quarterly reports	Other	At closure	Country	Number	0	2025	5	2030
	Percentage of female participants		Progress updates/Annual or quarterly reports	Other	At closure	Country	Percentage	0	2025	49	2030
Number of National Climate Outlook Forums (NCOF) held			Progress updates/Annual or quarterly reports	Other	Yearly	Country	Number	1	2027	1	2030
No components available.											

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year
Data sharing policy developed			Progress updates/Annual or quarterly reports	Policy	At closure	Country	Yes/No	No	2025	Yes	2030
No components available.											
Number of technical staff paid by the project		Number of technical staff paid by the project (Y1-Y2)	Progress updates/Annual or quarterly reports	Capacity	Yearly	Country	Number	0	2025	4	2027
	Number of technical staff paid by the project	Number of technical staff paid by the project (Y3-Y5)	Progress updates/Annual or quarterly reports	Capacity	Yearly	Country	Number	4	2027	8	2030

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year
Number of technical trainings conducted			Progress updates/Annual or quarterly reports	Capacity	At closure	Country	Number	0	2025	10	2030
	Percentage of female participants in technical trainings		Progress updates/Annual or quarterly reports	Other	At closure	Country	Percentage	0	2025	20	2030

Risks

Event	Category	Level	Likelihood	Impact	Mitigating Measures	Risk Owner
Non-compliance with fiduciary and procurement standards in some SOFF activities	<ul style="list-style-type: none"> Operational 	Medium	Rare	Major	<p>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.</p>	

SOFF-funded investments cause environmental or social impacts	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 Timor-Leste 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 to the extent possible (e.g. lightning rod). DNMG will be responsible for keeping the stations operational, but during the tropical cyclones, all the systems will be down.
Countries cannot make optimal use of data, including accessing or using improved forecasts products from the Global Producing Centers throughout the hydromet value chain	<ul style="list-style-type: none"> Organizational 	Medium	Unlikely	Moderate	To mitigate the risk, it is proposed that the Investment Phase includes extensive and comprehensive training for the DNMG 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		\$421,200.00	\$0.00	\$421,200.00
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		\$240,000.00	\$0.00	\$240,000.00
6. Transfers and Grants to Counterparts		\$4,352,531.00	\$366,402.00	\$4,718,933.00
7. General Operating and other Direct Costs				\$0.00
Project Costs Sub Total		\$5,013,731.00	\$366,402.00	\$5,380,133.00
8. Indirect Support Costs		\$350,961.17	\$25,648.14	\$376,609.31
Total		\$5,364,692.17	\$392,050.14	\$5,756,742.31

Performance-based Tranches Breakdown

Tranche			Total
Tranche 1	UNEP (90%)	\$4,828,222.95	\$4,958,893.26
	WMO (33.33%)	\$130,670.31	
Tranche 2	UNEP (10%)	\$536,469.22	\$667,139.53
	WMO (33.33%)	\$130,670.31	
Tranche 3	UNEP (0%)	\$0.00	\$130,709.52
	WMO (33.34%)	\$130,709.52	
			\$5,756,742.31

Results based budget

Outcome *	Output *	Agency *	Budget (USD) *
1. GBON institutional and human capacity developed		Sub Total	\$2,624,372.00
	1.1 National consultations including with CSOs, and other relevant stakeholders conducted.	UNEP (7%)	\$281,920.00
	1.2 NMHS institutional capacity required to operate the GBON network developed.	UNEP (7%)	\$363,200.00
	1.3 NMHS human capacity required to operate the GBON network developed.	UNEP (7%)	\$1,612,850.00
	1.3 NMHS human capacity required to operate the GBON network developed.	WMO (7%)	\$366,402.00
2. GBON infrastructure in place		Sub Total	\$1,713,641.00
	2.2 Improved land-based stations and related equipment, ICT systems, data management systems and standard operating practices in place	UNEP (7%)	\$630,150.00
	2.3 New upper-air stations and related equipment, ICT systems, data management systems and standard operating practices in place.	UNEP (7%)	\$1,083,491.00
3. Sustained compliance with GBON		Sub Total	\$1,042,120.00
	3.1 GBON land-based stations' commissioning period completed.	UNEP (7%)	\$447,320.00
	3.2 GBON upper air stations' commissioning period completed.	UNEP (7%)	\$594,800.00
Total			\$5,380,133.00

Programme Outcome Costs

Outcome	Output	Activity	Implementing Agent	Time Frame				
				2025	2026	2027	2028	2029
				1	1	1	1	1
1. GBON institutional and human capacity developed								
		1.1 National consultations including with CSOs, and other relevant stakeholders conducted.						
		Face-to-face inception workshop followed by subsequent stakeholder engagement workshops on the implementation of the SOFF project deliverables	UNEP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Organising high-level and end user-level engagement events to support SOFF implementation and operation in Timor-Leste	UNEP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		Organizing awareness raising activities for the community, i.a. to prevent vandalism	UNEP	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Maintaining the yearly National Climate Outlook Forum (NCOF)	UNEP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Outcome	Output	Activity	Implementing Agent	Time Frame				
				2025	2026	2027	2028	2029
				1	1	1	1	1
		Conducting private sector engagement/ consultations that focus on the sector-specific products/ services that DNMG could provide and the potential for private sector investments						
			UNEP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	1.2 NMHS institutional capacity required to operate the GBON network developed.							
		Capacity assessment of DNMG as the Executing Entity by the Implementing Entity						
			UNEP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Drafting a data policy to strengthen cooperation and data sharing between DNMG and other stakeholders in Timor-Leste						
			UNEP	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Regional engagement with the neighbouring countries, including to improve data sharing at the regional level						
			UNEP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	1.3 NMHS human capacity required to operate the GBON network developed.							
		Enhancing competence-building process in DNMG						
			WMO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Technical support in radiosounding tender						
			WMO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Technical support in IT hardware tender						
			WMO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Benchmarking portfolio and project management and coordination						
			WMO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Maintaining salaries of 4 meteorological technicians for maintenance of the surface stations						
			UNEP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Recruiting 1 meteorological technician for maintenance of the upper-air station						
			UNEP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Recruiting 3 ICT experts						
			UNEP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Conducting WIS2.0 training and basic programming training throughout the value chain of observation						
			UNEP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Strengthening capacity for data collection, quality control, processing and data sharing						
			UNEP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Benchmarking and developing an observation process of upper-air sounding						
			UNEP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Benchmarking good practices on archiving, transfer, and QC/QA, and subsequent SOPs; developing a roadmap for QC/QA methods						
			UNEP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Training on upper-air system (basic level) and surface weather station (advanced/supplementing) operation and maintenance						
			UNEP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Trainings on calibration of the equipment for DNMG staff						
			UNEP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Trainings on the IT system, especially for the new ICT staff						
			UNEP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Project management						
			UNEP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Conducting gender workshops to strengthen gender equality in governance, strategy, programmes, and decision making, and facilitate grounds for developing gender policy						
			WMO	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. GBON infrastructure in place								
	2.2 Improved land-based stations and related equipment, ICT systems, data management systems and standard operating practices in place							
		Site preparation and upgrade of 1 AWS						

Outcome	Output	Activity	Implementing Agent	Time Frame				
				2025	2026	2027	2028	2029
				1	1	1	1	1
			UNEP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Installation of WIS2.0 in a Box and upscaling data ingestion module of Climate Data Informatics System						
			UNEP	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Procurement and installation of ICT hardware and infrastructure, including storage capacity for WIS2.0 node						
			UNEP	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Provision of reliable power supply (e.g., solar panels) and internet connectivity (e.g., VSATs, cable, satellite, towers)						
			UNEP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2.3 New upper-air stations and related equipment, ICT systems, data management systems and standard operating practices in place.							
		Procurement and installation of one fully automatic upper-air measurement system including ground receiving system, Uninterruptible Power Supply (UPS), hydrogen generator, and consumables for one year (the balloon will be launched twice a day)						
			UNEP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Building required civil infrastructure (e.g., connection to electricity, shelter for hydrogen bottles, room for balloon filling and platform for ground system)						
			UNEP	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Sustained compliance with GBON								
	3.1 GBON land-based stations' commissioning period completed.							
		Spare parts and sensors for the AWS network						
			UNEP	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Maintenance of the AWS network						
			UNEP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Yearly calibration of the AWS network						
			UNEP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Yearly recalibration of the calibration equipment						
			UNEP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	3.2 GBON upper air stations' commissioning period completed.							
		Automatic upper-air measurement system consumables and maintenance of the upper-air sounding station						
			UNEP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Vehicle for maintenance of the network						
			UNEP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>