



General Information

Fund	MPTF_00281: The Systematic Observations Financing Facility					
FMP Record	MPTF_00281_00041: SOFF Dominican Republic Investment Phase					
MPTFO Project Id						
Start Date						
End Date						
Applicants	Status	Contact Type	Name	e-mail	Position	Telephone
	Active: 24-Feb-2025 8:45:00 AM	Project Manager	Abdel-lathif Younous	abdel-lathif.younous@wfp.org		
Signatories	Signature Process	Role	Name of Organization		Name	User Email
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	Digital	Signatory	WMO: WMO (World Meteorological Organization)		Celeste Saulo	csaulo@wmo.int
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Description	SOFF is supporting the Dominican Republic in enhancing its meteorological observation capabilities, together with the United Nations World Food Programme (WFP), the Agencia Estatal de Meteorología (AEMET), and the Instituto Dominicano de Meteorología (INDOMET). Building on the National GBON Gap Analysis and the National Contribution Plan, this three-year initiative (2026–2028) aims to fully upgrade and expand the country’s meteorological infrastructure in a single phase to ensure compliance with Global Basic Observing Network (GBON) standards. The project will address critical gaps in alignment with the GBON National Contribution Plan by: • Upgrading the existing conventional surface station in Barahona by fully equipping it with automatic instrumentation that meets the technical specifications and transmission criteria required for compliance with the GBON network. • Upgrading three existing automatic weather stations at Santo Domingo East (INDOMET Headquarters), Gregorio Luperón International Airport (Puerto Plata), and Punta Cana Airport, with necessary instrumentation, data transmission systems, and compliance enhancements. Ensuring the continued operation (replacing the hydrogen generator system) and sustainability of the existing upper-air station in Santo Domingo, with necessary support to maintain compliance with GBON and WIS 2.0 standards, and to preserve its current performance as reflected in WDQMS. • Strengthening national capacity, including training for meteorologists, maintenance staff, and data managers to ensure long-term sustainability. • Enhancing meteorological data transmission and management systems, enabling real-time, high-quality data dissemination to national, regional, and global networks. This investment will significantly strengthen the Dominican Republic’s meteorological capabilities, improving the accuracy of forecasts and reinforcing its contributions to global climate monitoring through WMO’s Integrated Global Observing System (WIGOS). Additionally, the project will align with existing national and regional initiatives, such as the Inter-American Development Bank’s Hydromet Data Management Program, the Anticipatory Actions Project, and ongoing collaborations with NOAA. By implementing this project as a single-phase, three-year effort, INDOMET will achieve full operational compliance with GBON while reinforcing its institutional and technical capacity. This initiative will directly contribute to climate resilience, disaster risk reduction, and sustainable development, ensuring that reliable meteorological data supports decision-making in agriculture, water resource management, and disaster preparedness across the Dominican Republic.				
	Universal Markers	Gender Equality Marker	Risk		
		• GEM1 - The Key Activity contributes to GEWE in a limited way	• Low 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 • No		
		Fragile and conflict-affected situation	Fragile and conflict-affected situation • No		
		Peer advisor	Peer advisor • Agencia Estatal de Meteorología (AEMET) [Spain]		
Geographical Scope	Geographical Scope	Name of the Region	Region(s)	Country	
	• Country		• Americas	• Dominican Republic	
Participating Organizations and their Implementing Partners	UN Participating Organizations	Government/ Multilateral/ NGO/ Other		New Entities	Implementing Partners
	• WFP - WFP (World Food Programme) • WMO - WMO (World Meteorological Organization)				

Programme and Project Cost	Participating Organization	Amount (in USD)		Comments		
	Budget Requested					
	WFP	\$1,196,848.87				
	WMO	\$84,172.75				
	Total Budget Requested	\$1,281,021.62				
	Tranches					
	Tranche 1		Tranche 2		Tranche 3	
	WFP (70%)	\$837,794.21	WFP (30%)	\$359,054.66	WFP (0%)	\$0.00
	WMO	\$28,054.78	WMO	\$28,054.78	WMO	\$28,063.19
	(33.33%)		(33.33%)		(33.34%)	
Total:	\$865,848.99	Total:	\$387,109.44	Total:	\$28,063.19	
Other Sources (Parallel Funding)						
Total	\$1,281,021.62					
Thematic Keywords						
Programme Duration	Anticipated Start Date	15-Jan-2026				
	Duration (In months)	36				
	Anticipated End Date	15-Jan-2029				

Narratives

Title	Text
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Close the most significant data gaps

To cover the surface of the Dominican Republic (48,442 square kilometers) requires at least 4 functional surface stations and the adaptation of the available upper air station.

Type of Station	Baseline (Results of the GBON National Gap Analysis, June 2023)				GBON National Contribution Target	
	Target (# of stations)	GBON compliant stations (#)	Gap		To Improve	New
			New	To improve		
land-based	2	0	0	4	4	0
upper-air	1	1	0	0	0	0

The 2023 WMO assessment regarding the minimum number of automatic surface stations required for GBON in the Dominican Republic was found to be clearly insufficient. This inadequacy stems from the country's complex orography, spatial variability, and the influence of diverse meteorological systems that frequently generate severe weather events with significant localized impacts, as outlined in the climatology section.

To address this, a broader network was proposed to ensure sufficient data coverage for both early warning systems and the assimilation processes of numerical weather prediction models. This expanded network aims to enhance the monitoring and simulation capabilities for weather phenomena affecting both the Dominican Republic and the wider Caribbean region. Consequently, the GBON National Contribution Target was increased to four stations, compared to the initial baseline of two.

With respect to the above table, there is:

One station which requires enhancements to its data transmission system,

- While two others require updated instrumentation to achieve GBON compliance.
- The fourth station requires comprehensive upgrades, including the acquisition of new equipment and infrastructure improvements.

Likewise, it was found that in the diagnostic phase, migration to the WIS 2.0 system and the acquisition of the technological infrastructure for these purposes is required.

An important aspect is the training of personnel to guarantee operation and sustainability, as well as the diagnosis of needs for the future diversification of systems such as the incorporation of the Geonetcast system.

Target easy fixes	The geographic points proposed to operate the GBON network in the Dominican Republic were qualified as accessible and safe, and the distribution ensures adequate geographic coverage across the national territory. There is an upper-air station operated by INDOMET in Santo Domingo, whose operation and maintenance are performed by INDOMET personnel certified by NOAA, and this support will continue as per their agreement. The upper-air station at ONAMET headquarters (WMO ID: 78486 MDSD) is operational, meets GBON temporal resolution requirements, and is already monitored through WDAQMS. While not yet formally affiliated in the GBON registry, it fulfills the technical criteria and is proposed as part of the GBON National Contribution. Full affiliation will be pursued once WIS 2.0 integration is completed. Following the improvement of the four existing surface stations (no new stations will be installed), all will be registered in OSCAR/Surface and formally affiliated with the GBON network, in coordination with WMO. Prioritizing this registration process will help ensure international visibility and full integration of the Dominican Republic's upgraded observational infrastructure. Spare parts, equipment, and software are supplied by NOAA, which has confirmed the continuation of its technical support to the Santo Domingo upper-air station as part of its long-standing collaboration with INDOMET. The consolidation of the WIS 2.0 system will support international data dissemination. Although the Santo Domingo upper-air station has already contributed data internationally, it has not yet been formally affiliated with GBON; this affiliation will be prioritized as part of ongoing registration and compliance efforts. One of the selected stations, currently transmitting data at regional level, will be adapted for hourly transmission and will comply with GBON requirements for international broadcasting. This station is located at the Punta Cana airport and is owned by the Civil Aviation Directorate, which guarantees the maintenance and integrity of the equipment, in addition, it has the permanent presence of INDOMET personnel; INDOMET's previous agreements with this entity favor the renegotiation to adapt the station in order to obtain operational access between the servers of both institutions for its automatic recovery and subsequent generation of a BUFR file for its transmission to the international community through WIS 2.0. This station has all the sensors required to capture the information required by GBON. Two other stations recommended for inclusion in GBON (INDOMET Headquarters in Santo Domingo East and Gregorio Luperón International Airport in Puerto Plata, northern region of the country) communicate every 10 minutes, are owned by INDOMET, and have access and security facilities for the instrumentation due to their location. In this case, an adaptation of the data transmission system is required, which currently operates via UHF, so the communications protocol must be adapted, and the necessary sensors must be integrated. Both stations have functional components to avoid the acquisition of a new station and minor expenses in civil works. The selected point in Barahona province is located at María Montez International Airport, where a manual station previously existed. This site has been identified in the GBON National Gap Analysis as suitable for upgrade. The plan is to fully modernize it with new equipment and complete civil engineering works, converting it into an automatic weather station. Its secure and accessible location ensures proper maintenance and long-term operational sustainability. Once upgraded, the station will meet GBON requirements for surface observations, contributing to national and global data exchange and strengthening the country's observational capacity In general, none of INDOMET's surface synoptic stations meet GBON requirements; a person trained by the WMO is available for the WIS 2.0 migration process.
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Create leverage	As a member of CIMHET, the Dominican Republic has access to institutional strengthening services, meteorological and climate services, and horizontal training/cooperation. The country has an ongoing project, financed by the Inter-American Development Bank (IDB), to promote the Hydrological and Meteo-Climate Data Management System in the Dominican Republic, a process that will favor the implementation of WIGOS. The National Meteorological Office received in July 2024 the approval of the law that converts it into the Dominican Meteorological Institute, which will allow them greater access to resources for the improvement of services, as well as the deployment and formalization of processes to strengthen policies and the exchange of data and products. Within the framework of the Anticipatory Actions Project of the United Nations World Food Program in the Dominican Republic, work has been done on the modeling of a regional network of automatic stations (8 units installed) in the northwest region of the country with an impact on 4 provinces. With this initiative, other public sector organizations have been motivated to climate observation and the improvement of early warning systems and the strengthening of observation infrastructure is being promoted. In coordination with the Climate Change Council in the Dominican Republic, 3 automatic stations were installed on Saona Island, Bahía de la Águilas, and Manzanillo (protected areas that favor climate change analysis); transmissions are pending, currently with data storage. However, none of these stations currently meet the technical, geographic, or operational standards for GBON compliance. They lack key instrumentation, regular and high-frequency transmission protocols, and are not yet integrated into WMO systems such as OSCAR or WIS 2.0. Furthermore, their siting does not fully align with the GBON density requirements. For these reasons, they cannot be considered as part of the country's GBON contribution at this stage, and dedicated efforts under the SOFF investment phase are focused on upgrading strategically selected stations to fully meet GBON standards. In other efforts to strengthen the observation infrastructure, a radar was acquired to be installed in the northern region. There is currently an operational radar in the eastern region, and projections of the Civil Aviation Institute to install others in strategic points of the country. As part of the proposal development phase of the CREWS initiative, WFP has been identified by WMO and UNDRR as a potential implementing partner, given its operational capacity and established presence at the community level. WFP's involvement at this stage reflects strong institutional linkages and alignment with SOFF's ongoing efforts to strengthen the foundational capacities of early warning systems. In this context, the main government partners for the project are INDRHI and INDOMET, with whom close collaboration is underway to ensure that all components of the early warning chain for hydrometeorological hazards are well developed and functional. The focus is particularly on the last mile, to ensure that alerts reach at-risk communities in a timely, understandable, and accessible manner.
Maximize delivery capacity	The implementing entity is the World Food Programme of the United Nations; with 65 years of work worldwide and more than 2 decades in the Dominican Republic. Currently, the WFP in the DR leads the UN technical team for emergencies (UNETE), as well as the shared leadership with FAO with the working group on disaster risk management, environmental sustainability and ecosystems of the United Nations Cooperation Framework in the country; likewise, the WFP is the pioneer in anticipatory actions on the island, supporting through its interventions of the Dominican state in emergency preparedness and especially INDOMET in strengthening institutional capacities and the observation network of the country. The WFP maintains close coordination with INDOMET in response to the results of the strategic plan that allows it to allocate funds and support the deployment of actions for resilience to shocks, adaptation to climate change, disaster risk reduction and decision making based on climate forecasts.

Sub-regional gains	The AEMET, as a peer advisor, and the WFP, as the implementing entity, are currently accompanying the meteorological services of other countries in the Caribbean and other regions; this experience is expected to generate an exchange that will strengthen the implementation, functioning as a support community. Through the migration to the WIS 2.0 system during the implementation phase, existing station networks and data exchange with other countries can be strengthened. Likewise, the capabilities developed in INDOMET personnel will be used to program the improvement of the operability of stations that do not comply with GBON but that can be completed or prepared based on donations received by the institution from a perspective oriented to data exchange. As part of the regional cooperation strategy, INDOMET will also explore collaboration with Regional WIGOS Centres (RWCs) and Regional Instrument Centres (RICs). While Cuba has expressed interest in serving as a regional service provider, offering potential support for calibration, maintenance, and quality control, INDOMET is already in contact with Costa Rica to request support that can be channeled through the regional centers. Given this ongoing engagement, INDOMET cannot pursue additional support from Cuba at this stage. This approach aims to strengthen national and regional GBON compliance and ensure long-term sustainability. Through the NOAA initiative, which has a network of radio sounding stations in the Caribbean Region, the Dominican Republic has a station of this type, which shares data with NOAA's National Climatic Data Center, the University of Wyoming and the Las Americas International Airport. It is expected to scale up the radio sounding measurement with a mobile station that allows in situ measurement, for which resources are still being sought.
SOFF Beneficiary Country Capacity Assessment	At the end of July 2024, the Dominican meteorological service was promoted by law, from Office to Dominican Institute of Meteorology, with 70 years of services, currently, its mandate is clearly established in legislative terms, favoring opportunities for improvement and expansion of the strategic plan; the latter was updated this year, prioritizing as strategic axes the institutional strengthening, the development of meteorological services and tsunami services. This organizational transition favors the improvement of climate services and, at the same time, implies an increase in the country's investment, as well as the prioritization of these services. INDOMET has participated in national and regional projects as an integral part, therefore, it lacks the experience of management and leadership of projects that link various entities, despite having maintained long-standing inter-institutional relations on good terms. Regarding technical capabilities, both the CHD and the NCP show the need to strengthen the capabilities of those in charge of sensor maintenance, repair, monitoring and maintenance of communications equipment, especially in the handling of modern and automatic equipment for its assembly, calibration, integration and configuration. The equipment is sufficient to cover the GBON network; however, there is a lack of meteorologists for the aeronautical area, which is a relevant gap considering that the selected points are mostly airports. In this order, the reorganization of the national team is proposed in order to cover the necessary experience in technical terms in the required geographical points, while INDOMET promotes and advocates for the expansion of the team in this phase of institutional transition, as a longer-term measure. The middle and executive management level is also required to develop skills for the effective planning and management of resources and projects. In this order, it is expected to have a coordination figure focused on the scope of the SOFF investment goals in the DR, which, in addition to managing the project, will guarantee the sustainability tools while covering the training needs to mitigate the effects of the identified areas of improvement in terms of management. The investment phase proposes a training plan aligned to the areas necessary for the optimal functioning of the GBON network and to INDOMET's country strategic plan, taking advantage of the relations and regional coordination that the meteorological service maintains with INSMET in Cuba and the mechanisms available at CIMHET.

Investment Phase Alignment with the GBON National Contribution Plan

While the investment proposal remains aligned with the NCP in terms of site selection criteria and the strategic importance of upgrading surface stations, it introduces key adjustments based on updated technical assessments and institutional realities. The 2023 WMO evaluation identified only two automatic surface stations as the minimum requirement for GBON compliance in the Dominican Republic. However, this baseline proved insufficient given the country's high spatial variability, and exposure to diverse meteorological systems that frequently produce severe, localized weather events. To ensure adequate data coverage for early warning systems and the assimilation of numerical weather prediction models, a broader network was proposed. This expanded configuration increases the GBON National Contribution Target to four stations. While the NCP initially indicated that INDOMET would upgrade two stations and IDAC one, subsequent discussions revealed that neither institution is currently able to finance these improvements. Accordingly, the Funding Request includes SOFF support for the upgrade of three existing stations and the modernization of one manual station to AWS, ensuring full GBON compliance. This reflects a necessary evolution from the original NCP commitments, driven by both technical imperatives and institutional constraints.

The budget presented in the NCP was based on preliminary estimates and factory-level costs available as of mid-2024. These initial figures did not account for several critical components, including duties, taxes, operational expenses, and inflation adjustments. In contrast, the Funding Request incorporates updated and comprehensive costings that reflect the full scope of implementation. This includes civil works, data transmission systems, institutional capacity development (such as project management, training, and SOP development), operational sustainability (including spare parts, GSM data transmission, and field monitoring), as well as procurement-related contingencies. All adjustments remain fully aligned with the NCP's objectives and are grounded in documented technical needs and implementation realities.

The investment proposal also addresses the training needs of the team and proposes to respond to capacity building in all aspects that directly contribute to the development and operation of infrastructure for the GBON Network, in order to build the capacity of those in charge of sensor maintenance, repair, monitoring and maintenance of communications equipment, as well as updating methods for the assembly, calibration, integration and configuration of new technologies to be acquired.

For the global transmission of information, we have considered the technological infrastructure needs that will allow the WIS 2.0 node to be operational and fed. This includes the acquisition of two redundant servers, one to be hosted at INDOMET headquarters and the other at the Punta Cana Airport meteorological office, to ensure uninterrupted service and data security. The upgraded GBON stations will be equipped with communication systems compatible with WIS 2.0 standards, including real-time transmission in BUFR format. INDOMET will develop internal applications and data routing protocols to automate data collection, formatting, and dissemination.

A dedicated technical team at INDOMET will oversee the integration of WIS 2.0 protocols, including data validation and synchronization with WMO Global Information System Centres (GISCs). The implementation plan also includes training for IT staff and data managers on WIS 2.0 standards and operating procedures. Additionally, INDOMET will coordinate with WMO and peer institutions (e.g., AEMET) for technical support and quality assurance to ensure sustained functionality and alignment with global standards.

Due to the timing of the development of the products of the first phase, there may be variations in the budget projected at the time with respect to the acquisition of equipment, while the availability of equipment in the country may be scarce or non-existent, hence the procurement process has considered in this proposal an increase in costs for the importation of equipment that meets the requirements for GBON.

Execution model and implementation arrangements	The World Food Program as executing agency will be responsible for the management of the funds granted for the deployment of the activities, as well as for the execution of the actions for the achievement of the objectives and their consequent reporting. The WFP will guarantee the development of all the stages in a joint manner and with the active participation of the Dominican Institute of Meteorology; framing the responsibilities in a work agreement between the institutions and with the establishment of a representative committee in the areas of meteorological equipment management, climatology, technology, management and administration. The WFP will ensure the correct use of budget allocations through its resource management committee, as well as that procurement processes are carried out in accordance with United Nations standards that guarantee transparency, value for money, inclusion and equity. Direct high-level communication will be established to review progress, which will be reported every four months by the inter-institutional committee and the technical focal points of each institution. The inter-institutional committee will hold bi-monthly working sessions to review progress and make joint decisions regarding the operation in technical and operational terms. At the country level, high-level communication will be maintained with partner institutions such as IDAC, INDHRI, and NOAA in order to ensure commitment from the management of the aforementioned institutions. The WFP will ensure specialized personnel for project management, the procurement process, a technician specialized in technology, and professionals in the monitoring area to follow up on compliance with the indicators. Due to changes in government officials in 2024 during the diagnostic phase, it is planned to resume the relationship with the authorities of the Ministry of the Presidency and the Ministry of the Environment to ensure that the commitment to support the deployment of this plan is maintained. AEMET will collaborate with the WFP in providing technical advisory services to support INDOMET in the implementation of the National Contribution Plan and the activities agreed upon for the Investment Phase. During the Investment Phase of the SOFF, AEMET will also participate in the following activities as a peer advisor: • Technical support in the AWS bidding process. • Support in the preparation and improvement of Standard Operating Procedures (SOPs). • Training in the maintenance and calibration of the AWS life cycle and radiosonde. • Advice on AWS data transfer and processing. • Advice on the implementation of a data management system. • Facilitate international exchange with other peer advisors and other countries within WMO RA IV. • Submission of contribution reports.
Private sector involvement	INDOMET does not have identified partners from the private sector; however, it will be strengthening its relationship with the agricultural sector and other private institutions such as universities that have automatic stations; likewise, tools will be created to standardize the data from private stations and contribute to feeding climate information at the global level by promoting the creation of agreements between INDOMET and the private sector to incorporate equipment that meets the minimum WMO criteria.
Civil society participation	The WFP has projects underway in different parts of the country through which it partners with civil society and community-based organizations; it is part of the institutional practice to identify local actors and stakeholders that can support the sustainability of the actions implemented. Partnerships have been established with the Federation of Neighborhood Councils, NGOs and community leaders. INDOMET and WFP will strengthen alliances with civil society to coordinate actions that favor the incorporation of women in the operational activities of the institutions.

Fiduciary systems	WFP will develop a legally binding Letter of Agreement with the Instituto Dominicano de Meteorologia (INDOMET) outlining the responsibilities of the two parties, including reporting, monitoring, evaluation, audit, payments, purpose, term, amendments and termination for the duration of the SOFF financing. Procurement processes under this investment will be conducted in accordance with WFP’s corporate supply chain and procurement policies, which ensure transparency, value for money, and compliance with UN standards. A summary of the procurement plan and key procurement actions will be shared with the SOFF Secretariat for information and alignment purposes.
Social and environmental safeguards	Since 2021, the WFP Environmental and Social Safeguards Framework (ESSF) applies to all WFP activities and the standards will be included in agreements with Cooperating Partners. The WFP Environmental and Social Safeguards Framework is based on existing ‘do no harm’ provisions mandated by the WFP’s Environmental Policy, Climate Change Policy, Policy on Disaster Risk Reduction and Management, Humanitarian Protection Policy; Statement of Humanitarian Principles; Guidance Note on Prevention of Child Labour; Policy on Building Resilience for Food Security and Nutrition; gender Policy; Policy on HIV and AIDS and relevant international agreements and treaties. The WFP Safeguards Framework is fully aligned with the Model Approach to Environmental and Social Standards in UN Programming. Regarding the cross-cutting issues of human rights, women’s rights and gender equality, climate/environment, the following applies: • Climate and environment: the project design adheres to core environmental standards outlined in the WFP ESSF (2021), preventing potential environmental harm and ensuring sustainability. The Environmental and Social Risk Screening Tool is employed to categorize risks, allowing for informed decision-making to mitigate low, medium, or high risks. Additionally, the Environmental Management System guides daily operations to ensure environmental sustainability is prioritized over the project’s timespan. • Women’s rights, gender equality, local and indigenous communities: Upholding accountability, inclusion, and non-discrimination principles, the project prioritizes the empowerment and participation of marginalized and vulnerable groups. In line with the UN Declaration on the Rights on Indigenous Peoples, Local and Indigenous Communities' rights are respected. The project design is committed to gender equality and women’s empowerment, aligning with WFP’s Gender Policy (2022) based on transformative approaches. WFP will ensure that women and girls, in addition to men and boys, participate meaningfully throughout the full project life cycle. Activities will respond to beneficiaries’ gender differences that may increase risks of GBV that are identified by an initial gender and protection analysis. Further, WFP is fully committed to the beneficiaries’ Circular (OED2023/011) and WFP’s current role as an IASC Champion for PSEA in 2024. Gender and inclusion gap assessments will continue to address diverse needs based on various factors. Under this initiative, INDOMET will develop a gender equity and equality plan to address existing gaps in women’s inclusion and empowerment when it comes to GBON infrastructure management, contributing to an overall improved gender balance within INDOMET. A grievance and redressal mechanism (GRM) will be established to ensure that any concerns raised by stakeholders are addressed transparently, fairly, and in a timely manner throughout the implementation of the investment phase. This mechanism will be aligned with WFP’s accountability and protection standards.

Dispute resolution mechanism	For the resolution of conflicts or disputes that may arise during the process, WFP’s global policies on mutual understanding between parties will be applied, governed by the general principles of law recognized internationally and by the terms of the agreements established between the parties. Disputes between the parties that cannot be resolved through negotiation will be submitted to arbitration at the request of either party. Each party will appoint an arbitrator, and the two arbitrators will appoint a third arbitrator, who will act as the president of the arbitral tribunal. If either party fails to appoint an arbitrator within 90 days from the date arbitration is requested, or if the two appointed arbitrators fail to agree on the selection of the third arbitrator within 30 days of their appointment, either party may request the President of the International Court of Justice to designate an arbitrator. The costs of arbitration will be borne by the parties as determined in the arbitral award. The arbitral award shall be accepted as the final and binding resolution of the dispute.
Additional relevant policies and procedures	WFP is a Green Climate Fund and Adaptation Fund accredited entity, a Climate Risks, and Early Warning Steering Committee member, a member of the Risk Informed Early Action Partnership Secretariat, and a lead partner in the EW4ALL initiative. WFP has corporate supply chain and procurement policies and guidelines that will also apply to relevant activities under these initiatives.

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
C130b01	13.b.1 Number of least developed countries and small island developing States that are receiving specialized support, and amount of support, including finance, technology and capacity-building, for mechanisms for raising capacities for effective climate c

Contribution to SDGs

Participating Organization	% TARGET_13.1	% TARGET_13.2	% TARGET_13.3	% TARGET_13.b	% TARGET_5.5	% Total
WMO	10	10	20	30	30	100
WFP	10	20	10	30	30	100

Total contribution by target	20	30	30	60	60	
Project contribution to SDG by target	10	15	15	30	30	100

Project Results

Outcome	Output	Description			
1. GBON institutional and human capacity developed					
	1.1 National Consultations conducted	National consultations including with CSOs, and other relevant stakeholders conducted.			
	Activities				
	Title	Description	Lead Participating Organization	Participating Organization	Other Organizations
	High-Level meeting on GBON network development	Conduct a high-level meeting with ministers and directors to raise awareness and present the GBON network development plan, ensuring the inclusion of gender considerations in all discussions.	WFP - WFP (World Food Programme)	• WMO - WMO (World Meteorological Organization)	
	INDOMET internal and bimonthly technical follow-up sessions	Establish an internal committee at INDOMET to oversee investment phase activities and organize bimonthly technical sessions to track progress, validate deliverables, and ensure alignment with SOFF outcomes.	WFP - WFP (World Food Programme)	• WMO - WMO (World Meteorological Organization)	
	1.2 NMHS institutional capacity developed	NMHS institutional capacity required to operate the GBON network developed.			

Outcome	Output	Description			
	Activities				
	Title	Description	Lead Participating Organization	Participating Organization	Other Organizations
	Management and moderation of regional exchanges on GBON	Facilitate and moderate exchanges with NMHSs from other countries in the region to share best practices and address gaps in establishing GBONs in LAC. Regional exchanges will be moderated by WFP.	WFP - WFP (World Food Programme)	WMO - WMO (World Meteorological Organization)	
	Alignment of INDOMET’s strategic and operational plans with SOFF outputs	Ensure INDOMET’s strategic plan and annual operational plan align with SOFF’s investment phase outcomes, integrating activities that promote women's participation in decision-making.	WFP - WFP (World Food Programme)	WMO - WMO (World Meteorological Organization)	
	Design and piloting of institutional tools for GBON network sustainability	Develop and test institutional tools such as SOPs for station maintenance and operations, process checklists, and data quality control procedures to ensure the continuous functionality of the GBON network.	WFP - WFP (World Food Programme)	WMO - WMO (World Meteorological Organization)	
	Mapping of meteorological equipment investments	Carry out a targeted review of ongoing and planned infrastructure investments to ensure they remain consistent with GBON standards. This activity helps INDOMET coordinate efforts, avoid overlap, and adapt to evolving priorities since the NCP was developed in 2023.	WFP - WFP (World Food Programme)	WMO - WMO (World Meteorological Organization)	
	Design of an accreditation protocol for Automatic Weather Stations	Develop a standardized accreditation protocol for INDOMET to certify automatic meteorological stations installed in the country.	WFP - WFP (World Food Programme)	WMO - WMO (World Meteorological Organization)	

Outcome	Output	Description			
	Review and Update Agreement between INDOMET and IDAC	Assess and revise the agreement between INDOMET and IDAC to ensure its alignment with the deployment and long-term sustainability of the GBON network. Official signing ceremony activities include workshops, visibility materials, communication support, and adherence to protocol requirements associated with such agreements.	WFP - WFP (World Food Programme)	WMO - WMO (World Meteorological Organization)	
	Review and update agreement between INDOMET and NOAA	Evaluate and update the agreement between INDOMET and NOAA to enhance its effectiveness in supporting the deployment and sustainability of the GBON network. Official signing activities include workshops, visibility materials, communication support, compliance with protocol requirements associated with such agreements, international staff travel, and consultations for meteorological personnel.	WFP - WFP (World Food Programme)	WMO - WMO (World Meteorological Organization)	
	Institutionalization of maintenance protocols	Create and implement standard operating procedures (SOPs) and instruction manuals tailored to the national context to guide AWS maintenance, including calibration cycles, fault logs, and documentation.	WFP - WFP (World Food Programme)	WMO - WMO (World Meteorological Organization)	

Outcome	Output	Description			
	Establishment of an Institutional digital repository for meteorological knowledge management	Develop and implement an institutional digital repository to centralize storage, facilitate access, and ensure continuity of meteorological documentation, training materials, procedures, and datasets. This activity includes the procurement of technical equipment and contracting specialized services, including an international meteorological expert with proficiency in WMO data-sharing protocols, ensuring compliance with global standards and internal capacity retention despite staff turnover.	WFP - WFP (World Food Programme)	WMO - WMO (World Meteorological Organization)	
	Evaluation and improvement of Hydrogen generation equipment safety	Assess the safety conditions of the station’s hydrogen generation equipment and implement necessary improvements to enhance operational security.	WFP - WFP (World Food Programme)	WMO - WMO (World Meteorological Organization)	
	Enhancement of BUFR transmission and WIS 2.0 integration for Upper-Air station GBON compliance	Upgrade the existing upper-air station's data transmission systems to ensure full compliance with GBON requirements. This includes developing and implementing an application for BUFR-format transmission and integrating the station into WIS 2.0, enabling the automated and standardized submission of two daily bulletins to the global meteorological information system. Although the station currently contributes to WDQMS, additional technical work and support from trained staff are required to finalize its GBON affiliation and meet all operational standards.	WFP - WFP (World Food Programme)	WMO - WMO (World Meteorological Organization)	

Outcome	Output		Description		
	Recruitment of Programme Manager and Technical Coordinator of project	Recruit and onboard qualified personnel to oversee project management, technical coordination, and ensure effective implementation and reporting of all project activities.	WFP - WFP (World Food Programme)	WMO - WMO (World Meteorological Organization)	
	Evaluation of Gender Integration in Meteorological Services	Conduct an assessment of gender integration in meteorological services, including diagnosis, analysis, and the development of improvement proposals to enhance inclusivity.	WFP - WFP (World Food Programme)	WMO - WMO (World Meteorological Organization)	
	1.3 NMHS human capacity developed		NMHS human capacity required to operate the GBON network developed.		

Outcome	Output	Description			
	Activities				
	Title	Description	Lead Participating Organization	Participating Organization	Other Organizations
	Technician training on AWS installation, operation and maintenance	Conduct hands-on training for INDOMET technicians and regional staff on the installation, operation, fault diagnosis, and first-level maintenance of automatic weather stations (AWS), aligned with WMO SOPs and GBON requirements.	WFP - WFP (World Food Programme)	WMO - WMO (World Meteorological Organization)	
	Capacity building on preventive maintenance and strategic management skills	Develop and deliver a training module on preventive maintenance (every 90 days) and corrective response for AWS, including metadata handling and sensor calibration practices	WFP - WFP (World Food Programme)	WMO - WMO (World Meteorological Organization)	
	Regional technical peer exchange and specialized skills development	Facilitate targeted technical exchanges with calibration laboratories (e.g., INSMET in Cuba) and other specialized peer institutions to strengthen INDOMET technicians’ practical competencies in sensor calibration, fault diagnostics, and advanced maintenance procedures. This activity focuses on hands-on skill development and technical collaboration, complementing the broader regional coordination efforts under Output 1.2.	WFP - WFP (World Food Programme)	WMO - WMO (World Meteorological Organization)	
2. GBON infrastructure in place					
	2.2 Improved land-based stations in place.	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
	Upgrade of three existing Automatic Weather Stations for GBON Integration, including stations metadata registration and improvement based on GBON standards	Acquire and install components, sensor systems, power supplies, GSM communication equipment, and other necessary elements to enhance three existing automatic stations for integration into the GBON Network, including stations metadata registration and improvement based on GBON standards.	WFP - WFP (World Food Programme)	WMO - WMO (World Meteorological Organization)	
	Development of an FTP-based data capture application for Punta Cana Station	Design and implement an application to capture and transmit hourly data via FTP for the Punta Cana station, ensuring seamless data sharing between INDOMET and IDAC.	WFP - WFP (World Food Programme)	WMO - WMO (World Meteorological Organization)	
	Upgrade of Data Transmission Systems at Punta Cana Station (dependent on CREWS-supported WIS 2.0 installation)	Upgrade the data transmission systems at the Punta Cana meteorological station by procuring and installing the necessary technological equipment and software to enable real-time, high-frequency BUFR data transmission. This activity is fully dependent on and will be implemented following the installation of the WIS 2.0 node under the CREWS project, ensuring secure integration with Global Information System Centres (GISCs) and full compliance with GBON standards.	WFP - WFP (World Food Programme)	WMO - WMO (World Meteorological Organization)	
	Review and evaluation of identified land-surface station installation points At the existing sites of Barahona	Assess and validate selected locations for the installation of land surface stations to ensure suitability and compliance with technical requirements.	WFP - WFP (World Food Programme)	WMO - WMO (World Meteorological Organization)	

Outcome	Output		Description		
	Development of civil works for new station Installation	Carry out necessary civil works to prepare sites for the installation of new meteorological stations, including infrastructure setup.	WFP - WFP (World Food Programme)	• WMO - WMO (World Meteorological Organization)	
	Acquisition and installation of a new equipment to rehabilitate surface station in Barahona	Procure and install a complete surface station at the identified site in Barahona, including infrastructure, power systems, and data transmission equipment via GSM, ensuring full compliance and integration with GBON standards.	WFP - WFP (World Food Programme)	• WMO - WMO (World Meteorological Organization)	
3. Sustained compliance with GBON					
	3.1 GBON land-based stations commissioning period completed.		GBON land-based stations’ commissioning period completed, country-specific standard cost for operations and maintenance established, and data sharing verified by WMO Technical Authority		
	Activities				
	Title	Description	Lead Participating Organization	Participating Organization	Other Organizations
	Procurement of equipment and spare sensors for land-based stations	Acquire necessary equipment and spare sensors to ensure the operation of four land-based stations for three years.	WFP - WFP (World Food Programme)	• WMO - WMO (World Meteorological Organization)	
	Coverage of GSM data transmission costs for three stations	Fund GSM network data transmission for three years for three ground stations, with the fourth station already covered.	WFP - WFP (World Food Programme)	• WMO - WMO (World Meteorological Organization)	
	Field Monitoring, technical upgrading, and maintenance support	Allocate resources for field monitoring, annual capacity upgrades for technical teams, and maintenance of land-based stations for two years.	WFP - WFP (World Food Programme)	• WMO - WMO (World Meteorological Organization)	

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	Link
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	2026	4	2028	Link to G in tu pl O 2. In la ba st in
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	2026	4	2028	Link to Su cc ee G O 3. G la ba st cc or pe cc d.

Project Indicators

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year	Link / Output
Number of institutional agreements updated to support GBON implementation		Measures the number of existing agreements between national and international partners that are formally revised to clarify roles, responsibilities, and technical collaboration aligned with GBON standards. This includes legal or operational updates to existing MoUs or cooperation frameworks (INDOMET-IDAC and INDOMET-NOAA agreements)		Capacity	At closure	Country	Number	0	2026	2	2028	Output 1.2 National capacity development
	No components available.											
Number of coordination mechanisms and follow-up meetings held to monitor the implementation of the investment plan and report on progress indicators		This indicator tracks the number of meetings held through coordination mechanisms to monitor the implementation of the investment plan and review progress on key indicators.		Capacity	At closure	Country	Number	0	2026	18	2028	Output 1.1 National Coordination corridor

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year	Link / Output
	Percentage of women participating in meetings and work meetings.	Measures the proportion of women attending and engaging in meetings and work sessions, reflecting gender inclusion in decision-making and implementation processes.		Capacity	At closure	Country	Percentage	0	2026	50	2028	
Number of exchanges with peer institutions in the GBON process.		Tracks the number of interactions, collaborations, or knowledge-sharing activities with peer institutions to support the GBON implementation process.		Capacity	At closure	Country	Number	0	2026	3	2028	Output 1: GBON institutional human capacity developed Output 1.2: NM institutional capacity developed
	No components available.											
Number of workshops/trainings conducted under the investment plan.		Tracks the number of capacity-building sessions organized to support the implementation of the investment plan.		Capacity	At closure	Country	Number	0	2026	8	2028	Output 1: GBON institutional human capacity developed Output 1.3: NM human capacity developed

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year	Link / O
	Percentage of participating women trained in the deployment of the training plan.	Measures the proportion of women who received training as part of the implementation of the training plan, reflecting gender inclusion in capacity-building efforts.		Capacity	At closure	Country	Percentage	0	2026	50	2028	
Number of improvement proposals for integrating the gender perspective in the meteorological service.		Tracks the number of proposals developed to enhance gender inclusion within meteorological services, ensuring equitable participation and benefits.		Capacity	At closure	Country	Percentage	0	2026	1	2028	Outcomes: 1. GBON institutional human capacity developed Outcomes: 1.3 NV human capacity developed
	No components available.											
Number of new institutional agreements signed to formalize GBON implementation roles		Tracks new institutional agreements established to define responsibilities, funding flows, and coordination structures specifically for the GBON RD investment phase. This includes new Letters of Agreement (e.g., WFP–INDOMET) that govern collaboration during implementation.		Capacity	At closure	Country	Number	0	2026	1	2028	Outcomes: 1. GBON institutional human capacity developed Outcomes: 1.2 NV institutional capacity developed

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year	Link / Output
	No components available.											
Number of institutional tools and protocols developed to support GBON operations		Counts the number of internal tools and protocols (e.g., SOPs, accreditation systems, maintenance procedures) developed or piloted to institutionalize GBON-aligned practices and ensure long-term sustainability of meteorological operations.		Capacity	At closure	Country	Number	0	2026	5	2028	Output 1.1: GBON institutional human capacity developed
	No components available.											
Number of high-level meetings to raise awareness and present the GBON network development plan.		Tracks the number of strategic meetings with key stakeholders to promote awareness and support for the GBON development plan at the national level.		Capacity	At closure	Country	Number	0	2026	3	2028	Output 1.1: GBON institutional human capacity 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	Financial	Medium	Possible	Minor	Implement regular audits and training on fiduciary and procurement standards.	WFP

SOFF-funded investments cause environmental or social impacts	Social and Environmental	Medium	Unlikely	Moderate	The WFP Environmental and Social Safeguards Framework (ESSF, 2021) applies to all activities under this investment. It is aligned with the model approach to Environmental and Social Standards in UN Programming and includes provisions from WFP's Environmental Policy, Climate Change Policy, Disaster Risk Reduction and Management Policy, Humanitarian Protection Policy, Gender Policy (2022), and other relevant international agreements. For medium-level risks related to environmental and social impacts, WFP is the designated risk owner. WFP will conduct Environmental and Social Impact Assessments (ESIAs) prior to implementation and apply the Environmental and Social Risk Screening Tool to categorize and mitigate risks. INDOMET will also be responsible for implementing safeguards at the national level, including the development of a gender equity and equality plan to address gaps in women's inclusion in GBON infrastructure management.	WFP
NMHS staff depart after being trained.	Operational	High	Likely	Moderate	Establish retention agreements and offer incentives for trained personnel. Involve hired personnel in administrative careers, thus avoiding mobility of the trained team.	INDOMET
Slow implementation and delays in procurement, installation and capacity building activities	Operational	High	Possible	Moderate	Develop a detailed project management plan with clear milestones and ongoing monitoring. Include follow-up on schedules and planning during bi-monthly interagency committee meetings.	WFP, AEMET, INDOMET
After the conclusion of the Investment phase, GBON data are not collected or shared or are shared of insufficient quality	Operational	High	Likely	Major	Establish quality protocols and continuous monitoring of shared data.	INDOMET
Destruction or theft of SOFF-financed equipment and infrastructure	Operational	High	Likely	Major	Implement robust and secure security measures for equipment and infrastructure.	INDOMET
Countries cannot make optimal use of data, including accessing or using improved forecasts products from the Global Producing Centers throughout the hydromet value chain	Operational	High	Likely	Major	Strengthen national capacity for data access, interpretation, and application by implementing targeted training programs, improving data infrastructure (e.g., WIS 2.0 nodes), and establishing protocols for the integration of global forecast products into national systems	INDOMET
Lack of qualified personnel: INDOMET faces a significant shortage of meteorologists and qualified technical staff, which could affect the implementation and operation of systems	Operational	High	Likely	Major	Implement intensive training programs and international cooperation agreements for personnel training. Identify external support from other countries or outsourcing companies in the country.	INDOMET

Sustainability of observational infrastructure: INDOMET’s network of automatic stations relies on donations and faces sustainability issues due to a lack of spare parts and personnel.	• Operational	High	Likely	Major	Establish long-term maintenance agreements with regional institutions and secure a dedicated national budget line within INDOMET to ensure continuous financing for spare parts, calibration, and technical personnel. This will support the sustainability of SOFF-financed infrastructure and ensure compliance with GBON requirements during the SOFF Compliance Phase.	INDOMET
INDOMET’s communication and maintenance infrastructure faces significant challenges, especially in remote and hard-to-reach areas. The lack of bidirectional communication systems and reliance on donated equipment, which often lacks adequate spare parts, c	• Operational	High	Likely	Major	Implement two-way communication systems, such as mobile telephony or satellite communications, to improve interaction with meteorological stations. Establish maintenance agreements with regional institutions and ensure continued funding for spare parts and personnel. Develop a maintenance and calibration plan for the stations, including training of personnel in first-level maintenance techniques.	INDOMET

Budget by UNSDG Categories: Over all

Budget Lines	Description	WFP (6.5%) *	WMO (7%) *	Total
1. Staff and other personnel		\$211,340.04	\$0.00	\$211,340.04
2. Supplies, Commodities, Materials		\$10,336.04	\$0.00	\$10,336.04
3. Equipment, Vehicles, and Furniture, incl. Depreciation		\$423,560.80	\$0.00	\$423,560.80
4. Contractual services		\$217,562.40	\$78,666.12	\$296,228.52
5. Travel		\$147,787.17	\$0.00	\$147,787.17
6. Transfers and Grants to Counterparts		\$21,684.00	\$0.00	\$21,684.00
7. General Operating and other Direct Costs		\$91,531.31	\$0.00	\$91,531.31
Project Costs Sub Total		\$1,123,801.76	\$78,666.12	\$1,202,467.88
8. Indirect Support Costs		\$73,047.11	\$5,506.63	\$78,553.74
Total		\$1,196,848.87	\$84,172.75	\$1,281,021.62

Performance-based Tranches Breakdown

Tranche			Total
Tranche 1	WFP (70%)	\$837,794.21	\$865,848.99
	WMO (33.33%)	\$28,054.78	
Tranche 2	WFP (30%)	\$359,054.66	\$387,109.44
	WMO (33.33%)	\$28,054.78	
Tranche 3	WFP (0%)	\$0.00	\$28,063.19
	WMO (33.34%)	\$28,063.20	
			\$1,281,021.62

Results based budget

Outcome *	Output *	Agency *	Budget (USD) *

1. GBON institutional and human capacity developed		Sub Total	\$597,523.69
	1.1 National Consultations conducted	WFP (6.5%)	\$68,331.50
	1.2 NMHS institutional capacity developed	WFP (6.5%)	\$109,767.44
	1.3 NMHS human capacity developed	WFP (6.5%)	\$340,758.63
	1.3 NMHS human capacity developed	WMO (7%)	\$78,666.12
2. GBON infrastructure in place		Sub Total	\$416,647.87
	2.2 Improved land-based stations in place.	WFP (6.5%)	\$416,647.87
3. Sustained compliance with GBON		Sub Total	\$188,296.32
	3.1 GBON land-based stations commissioning period completed.	WFP (6.5%)	\$188,296.32
Total			\$1,202,467.88

Programme Outcome Costs

Outcome	Output	Activity	Implementing Agent	Time Frame		
				2026	2027	2028
				1	1	1
1. GBON institutional and human capacity developed						
	1.1 National Consultations conducted					
		High-Level meeting on GBON network development				
			WFP	☒	☒	☐
			WMO	☒	☒	☐
		INDOMET internal and bimonthly technical follow-up sessions				
			WFP	☒	☒	☒
			WMO	☒	☒	☒
	1.2 NMHS institutional capacity developed					
		Management and moderation of regional exchanges on GBON				
			WFP	☒	☒	☐
			WMO	☒	☒	☐
		Alignment of INDOMET’s strategic and operational plans with SOFF outputs				
			WFP	☒	☒	☐
			WMO	☒	☒	☐
		Design and piloting of institutional tools for GBON network sustainability				
			WFP	☒	☒	☐
			WMO	☒	☒	☐
		Mapping of meteorological equipment investments				
			WFP	☒	☐	☐
			WMO	☒	☐	☐
		Design of an accreditation protocol for Automatic Weather Stations				
			WFP	☒	☐	☐
			WMO	☒	☐	☐
		Review and Update Agreement between INDOMET and IDAC				
			WFP	☒	☐	☐
			WMO	☒	☐	☐
		Review and update agreement between INDOMET and NOAA				

Outcome	Output	Activity	Implementing Agent	Time Frame		
				2026	2027	2028
				1	1	1
			WFP	☒	☐	☐
			WMO	☒	☐	☐
		Institutionalization of maintenance protocols				
			WFP	☒	☒	☐
			WMO	☒	☒	☐
		Establishment of an Institutional digital repository for meteorological knowledge management				
			WFP	☒	☐	☐
			WMO	☒	☐	☐
		Evaluation and improvement of Hydrogen generation equipment safety				
			WFP	☒	☐	☐
			WMO	☒	☐	☐
		Enhancement of BUFR transmission and WIS 2.0 integration for Upper-Air station GBON compliance				
			WFP	☐	☒	☐
			WMO	☐	☒	☐
		Recruitment of Programme Manager and Tecnical Coordinator of project				
			WFP	☒	☐	☐
			WMO	☒	☐	☐
		Evaluation of Gender Integration in Meteorological Services				
			WFP	☒	☐	☐
			WMO	☒	☐	☐
	1.3 NMHS human capacity developed					
		Technician training on AWS installation, operation and maintenance				
			WFP	☒	☐	☐
			WMO	☒	☐	☐
		Capacity building on preventive maintenance and strategic management skills				
			WFP	☒	☒	☐
			WMO	☒	☒	☐
		Regional technical peer exchange and specialized skills development				
			WFP	☒	☒	☐
			WMO	☒	☒	☐
2. GBON infrastructure in place						
	2.2 Improved land-based stations in place.					
		Upgrade of three existing Automatic Weather Stations for GBON Integration, including stations metadata registration and improvement based on GBON standards				
			WFP	☒	☐	☐
			WMO	☒	☐	☐
		Development of an FTP-based data capture application for Punta Cana Station				
			WFP	☒	☒	☐
			WMO	☒	☒	☐
		Upgrade of Data Transmission Systems at Punta Cana Station (dependent on CREWS-supported WIS 2.0 installation)				
			WFP	☒	☒	☐
			WMO	☒	☒	☐
		Review and evaluation of identified land- surface station installation points At the existing sites of Barahona				
			WFP	☒	☐	☐
			WMO	☒	☐	☐

Annex: Terms of Reference for the provision of technical advisory services during the SOFF Investment Phase

1. Purpose and scope

These Terms of Reference describe the provision of technical advisory services by AEMET (Agencia Estatal de Meteorología, Spain) to the Dominican Republic Institute of Meteorology (INDOMET) to contribute to the delivery of the SOFF Investment Phase outputs as described in Section 3.

The Terms of Reference are based on the [SOFF Operational Manual](#), Section 4.4.3 on the Operational Partners and Section 4.5.2 on the Investment Phase; as well as on the [SOFF Investment Framework](#), Section 4.5 on the Peer Advisors and WMO Technical Authority.

2. Roles and responsibilities

Beneficiary country National Meteorological and Hydrological Service

- Is responsible for implementing the activities of the SOFF Investment Phase activities with the support of the Implementing Entity and the peer advisor.
- Submits the SOFF Investment Phase funding request using the standardized template provided by the SOFF Secretariat, including the Terms of References for the peer advisor's technical advisory services during the Investment Phase.
- Is responsible for collaborating with the Implementing Entity to provide all the necessary information, participate in and facilitate the national activities that the Implementing Entity and peer advisor need to conduct in order to deliver the SOFF Investment Phase outputs.
- Confirms the completion of all the Investment Phase activities and provides comments as needed on the final report prepared by the Implementing Entity.

Peer advisor

- Is accountable to the beneficiary country and the Implementing Entity.
 - Is contracted via the WMO pass-through mechanism and operates on a cost-recovery basis.
- Provides technical advisory services to support beneficiary countries and Implementing Entities in the design and implementation of the SOFF Investment Phase activities.
- Contributes to the final report of the SOFF Investment Phase.

Implementing Entity

- Prepares the Investment Phase funding request in collaboration with the beneficiary country and the peer advisor, including the Terms of References for the provision of technical advisory services during the SOFF Investment Phase.

- Manages the Investment Phase activities following the terms specified in the funding request and in collaboration with relevant national partners, including civil society organizations.
- Delivers the Investment phase outputs and is responsible for their quality and timely delivery, in coordination with the country and the peer advisor.
- Provides quarterly updates to the SOFF Secretariat according to a simple standardized form and annual reports according to the United Nations Multi-Partner Trust Fund Office's reporting requirements indicated in the legal agreements.
- Informs the SOFF Secretariat of circumstances that could materially impede the implementation of the Investment phase or any considerable deviation in the conditions of the funding request to achieve its objectives.
- Submits the final report to the SOFF Secretariat including the beneficiary country's comments and the peer advisors' feedback. The final report describes the institutional arrangements to secure sustained operation and maintenance of the investments made.

WMO Technical Authority

- Provides basic on-demand technical assistance to the beneficiary country, Implementing Entity and peer advisor on GBON regulations, including on monitoring and assessing the data-sharing status of the stations using the WQMS web tool¹
- Is responsible for the verification of data sharing of the new or rehabilitated surface and upper-air stations as per GBON regulations.
- WMO provides a verification report to the SOFF Secretariat, upon which the Investment Phase can be considered completed.
- Establishes and administers the pass-through mechanism for contracting and funding of the advisory services provided by the peer advisors.

SOFF Secretariat

- Facilitates communication, coordination and collaboration between the beneficiary country, the Implementing Entity, the peer advisor and WMO Technical Authority.
- Reviews the SOFF Investment Phase funding request, including the Terms of Reference for the provision of technical advisory services and provides feedback as needed. Then transmits the funding request to the SOFF Steering Committee for their decision.
- Compiles quarterly updates and annual reports and monitors implementation based on information received from the Implementing entity, the peer advisor and the beneficiary country. Regularly informs the Steering Committee of progress.
- Coordinates regional implementation approaches to the SOFF Investment Phase.
- Confirms receipt of the final report by the Implementing Entity and completion of the Investment Phase based on WMO verification of data sharing.

¹ The WQMS web tool monitors the availability and quality of observational data based on near-real-time information from the four participating global Numerical Weather Prediction centres: the German Weather Service (DWD), the European Centre for Medium range Weather Forecasts (ECMWF), the Japan Meteorological Agency (JMA) and the United States National Centers for Environmental Prediction (NCEP). These are four of the ten World Meteorological Centres, designated by WMO to provide global numerical weather prediction products for all WMO Members.

- Organizes exchange of knowledge and experiences and captures lessons learned.

3. Peer advisors' activities during the SOFF Investment Phase

The peer advisor will contribute to the delivery of the SOFF Investment Phase outputs as described in the *RBM* section of the SOFF UNMPTF Gateway through the following activities:

Output	Indicator (Please copy the indicators from RBM section of the Investment Funding request.)	Activities conducted / contributions (Please list all activities that will be conducted by the peer advisor relevant to the output. Please add rows if more than one activity will be conducted.)	Implementation plan		
			Y1	Y2	Y3
1.1 National consultations , including with CSOs and other relevant stakeholders conducted	Number of national workshops with consultancy activities involving civil society organizations and stakeholders.	Assistance in the preparation and organization of workshops, including design, promotion and logistic	X	X	
	Percentage of participating women	Support to implement Gender Balance model and define monitoring assessment	X	X	
	Number of coordination mechanisms and follow-up meetings held	Support internal committee and bimonthly technical sessions	X	X	X
	Number of high-level meetings to raise awareness	Technical input to strategic GBON meetings and alignment with other national observation networks	X		
1.2 NMHS institutional capacity required to operate the GBON network developed	Number of high-level executives trained.	Assistance for creating capacity buildings and enhancing skills to operate AWS and radiosounding	X	X	X
	Percentage of participant women	Support identifying and compare best practices	X	X	
	Number of institutional agreements updated	Support the review and update of the agreement between INDOMET and IDAC to ensure alignment with GBON implementation roles and	X	X	

		responsibilities.			
	Number of institutional tools and protocols developed	Support the review and update of the agreement between INDOMET and NOAA to enhance technical collaboration and sustainability of the upper-air station.	X	X	
	Number of institutional tools and protocols developed	Support the design and piloting of institutional tools such as SOPs, checklists, and quality control procedures to ensure GBON network sustainability.	X	X	
		Support the development of an accreditation protocol for Automatic Weather Stations to certify compliance with national and WMO standards.	X		
		Support the institutionalization of maintenance protocols, including calibration cycles, fault logging, and documentation.	X	X	
		Support the establishment of an institutional digital repository to centralize meteorological documentation, procedures, and training materials.	X		
		Provide technical assistance to evaluate and improve the safety of hydrogen generation equipment used in radiosonde operations.	X		
		Support the enhancement of BUFR transmission and WIS 2.0 integration for the upper-air station to ensure full GBON compliance.		X	
	Percentage of participant women	Support identifying and compare best practices	X	X	

	Percentage of the instruction manual completion.	Support in preparing a roadmap for implementing QC/QA methods	X	X	
1.3 NMHS human capacity required to operate the GBON network developed	Percentage of participating staff trained in new tools and technologies for monitoring availability and quality of observations	Provide hands-on training for INDOMET technicians and regional staff on new technologies to ensure success evolution and sustainability of observation systems aligned with WMO SOPs and GBON requirements. New technologies as Artificial Intelligence and Machine learning.	X	X	X
	#Number of technical personnel trained in AWS and radiosonde operations, maintenance, and calibration.	Provide hands-on training for INDOMET technicians and regional staff on the installation, operation, fault diagnosis, and first-level maintenance of Automatic Weather Stations (AWS), aligned with WMO SOPs and GBON requirements.	X		
	Percentage of participating women trained in the deployment of the training plan	Support gender-sensitive training design and monitoring	X	X	
	Number of improvement proposals for integrating the gender perspective in the meteorological service	Support gender integration assessment and proposal development	X	X	
	Number of technical personnel trained	Develop and deliver a training module on preventive maintenance (e.g., every 90 days) and corrective response for AWS, including metadata handling and sensor calibration practices.	X	X	

	Number of exchanges with peer institutions	Facilitate targeted technical exchanges with calibration laboratories (e.g., INSMET in Cuba) and other specialized peer institutions to strengthen INDOMET technicians' practical competencies in sensor calibration, fault diagnostics, and advanced maintenance procedures.	X	X	
2.1 New land-based stations and related equipment, ICT systems, data management systems and standard operating practices in place	# of new stations installed as per the GBON National Contribution Plan	Assistance with technical aspects of AWS and IT bidding procedure (including WIS 2.0 if it is needed)	X	X	
2.2 Improved land-based stations and related equipment, ICT systems, data management systems and standard operating practices in place	# of stations improved as per the GBON National Contribution Plan	Support the upgrade of three existing Automatic Weather Stations (AWS) to meet GBON standards, including assistance with sensor integration, calibration, and metadata registration.	X	X	
		Provide technical guidance for the development of an FTP-based data capture application for the Punta Cana station to enable hourly data transmission.	X		
		Support the upgrade of data transmission systems at the Punta Cana station, ensuring compatibility with WIS 2.0 (dependent on CREWS-supported installation).	X	X	
		Assist in the review and evaluation of the selected installation site at Barahona to ensure suitability and compliance with GBON requirements.	X		

		Provide technical input for the development of civil works required for the installation of the new AWS at Barahona.	X		
		Support the acquisition and installation of new equipment to rehabilitate the surface station at Barahona, ensuring full GBON compliance.	X		

2.3 New upper air stations and related equipment, ICT systems, data management systems and standard operating practices in place	# of new stations installed as per the GBON National Contribution Plan	N/A			
3.1 GBON land-based stations' commissioning period completed , country-specific standard cost for operations and maintenance established, and data sharing verified by WMO Technical Authority.	# of stations commissioned as per the GBON National Contribution Plan	Support the procurement of equipment and spare sensors to ensure the operational readiness of GBON-compliant land-based stations.	X	X	X
		Provide technical assistance to ensure GSM data transmission costs are covered for three stations over the three-year implementation period.	X	X	X

		Support field monitoring missions, annual technical capacity upgrades for INDOMET staff, and maintenance of land-based stations to ensure sustained GBON compliance.	X	X	X
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Signatures

Peer advisor focal point	Name Title Date FERNANDO BELDA ESPLUGUES Firmado digitalmente por FERNANDO BELDA ESPLUGUES Fecha: 2025.10.15 09:39:38 +02'00'
Country focal point	Name Title Date



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