
SOFM Investment Funding Request

Democratic Republic of Congo

Systematic Observations
Financing Facility

**Weather
and climate
data for
resilience**





General Information

Fund	MPTF_00281: The Systematic Observations Financing Facility					
FMP Record	MPTF_00281_00039: SOFF Democratic Republic of Congo Investment Phase					
MPTFO Project Id						
Start Date						
End Date						
Applicants	Status	Contact Type	Name	e-mail	Position	Telephone
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Description	<p>The Systematic Observations Financing Facility (SOFF) initiative is supporting the Agence Nationale de Météorologie et de Télédétection par Satellite (METTELSAT) together with the UN World Food Programme (WFP), and the Federal Office of Meteorology and Climatology (MeteoSwiss) in strengthening the Democratic Republic of Congo's (DRC) meteorological observation capabilities. Building on the National GBON Gap Analysis and the National Contribution Plan, the initiative aims to rehabilitate and expand DRC's meteorological network to ensure compliance with Global Basic Observing Network (GBON) standards.</p> <p>The project seeks to address critical observational gaps by upgrading 8 existing surface stations and installing 1 new automatic weather surface station across the country during the first cycle of the project while preparing the ground for the next cycles of SOFF investment to eventually reach 68 surface stations and 12 upper air stations. Given DRC's vast geographical scale and infrastructure challenges, the initiative follows a phased approach (called cycles in this document), ensuring that METTELSAT develops the institutional and technical capacity required for sustainable network operation. The first investment cycle (2025–2028) focuses on stabilizing key manual surface stations, deploying an Automatic Weather Station (AWS) at the headquarters in Kinshasa, refurbishing calibration facilities, enhancing data transmission, and implementing preventive maintenance procedures.</p> <p>This investment will strengthen DRC's meteorological capabilities, improving national forecasting accuracy and reinforcing the country's contributions to global and regional climate monitoring under the World Meteorological Organization Integrated Global Observing System (WIGOS). METTELSAT's institutional capacity will be enhanced through specialized training, governance frameworks, and operational guidelines, ensuring sustainable data collection and compliance with GBON standards. Additionally, a multi-year maintenance plan will be developed to safeguard long-term functionality.</p> <p>By aligning with ongoing initiatives such as the World Bank's Hydromet Program, the CREWS Initiative, and AfDB climate resilience projects, SOFF investment will create synergies to enhance early warning systems and disaster risk reduction in DRC. This project will be pivotal in climate adaptation, agriculture, water resource management, and disaster risk reduction, ensuring that reliable meteorological data supports national and regional resilience efforts.</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"> • Low 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"> • No 				
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"> • MétéoSwiss [Switzerland] 				
Geographical Scope	Geographical Scope	Name of the Region	Region(s)	Country		
	<ul style="list-style-type: none"> • Country 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Africa 	<ul style="list-style-type: none"> • Democratic Republic of the Congo 		
Participating Organizations and their Implementing Partners	UN Participating Organizations	Government/ Multilateral/ NGO/ Other	New Entities	Implementing Partners		
	<ul style="list-style-type: none"> • WFP - WFP (World Food Programme) • WMO - WMO (World Meteorological Organization) 			WFP		
Programme and Project Cost	Participating Organization	Amount (in USD)	Comments			
	Budget Requested					
	WFP	\$1,914,282.52				
	WMO	\$545,700.00				
	Total Budget Requested	\$2,459,982.52				
	Tranches					
	Tranche 1	Tranche 2	Tranche 3			
	WFP (70%) WMO (33.33%) Total:	\$1,339,997.76 \$181,881.81 Total:	WFP (30%) WMO (33.33%) Total:	\$574,284.76 \$181,881.81 Total:		
				WFP (0%) \$0.00 WMO (33.34%) Total:		
				\$181,936.38 Total: \$181,936.38		
	Other Sources (Parallel Funding)					
	Total	\$2,459,982.52				
Thematic Keywords						
Programme Duration	Anticipated Start Date	01-Mar-2026				
	Duration (In months)	42				
	Anticipated End Date	01-Sep-2029				

Narratives

Title	Text
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Close the most significant data gaps

The national meteorological agency of the Democratic Republic of Congo (DRC), METTELSAT, operates under significant constraints that hamper its ability to provide accurate weather forecasts and climate data. Years of underinvestment have left the agency with outdated equipment, insufficient observation coverage, and weak data-sharing mechanisms. This deficiency not only limits the country's ability to generate reliable forecasts but also restricts its capacity to contribute to regional and global meteorological endeavors.

The DRC has a significantly underdeveloped meteorological network, with only a fraction of its historical observation stations still operational. Currently, only 25% of its original observation station's function, with no active upper-air stations, resulting in inadequate weather and climate monitoring and forecasting capabilities. The National Gap Analysis identified the need to establish and operationalize 68 surface stations and 12 upper-air stations for the DRC to meet the GBON requirements.

The SOFF investments in the DRC will focus on improving observational infrastructure by upgrading 35 existing surface stations, installing 24 new surface stations, and establishing 12 new upper-air stations. These figures reflect the overall GBON global target set for the DRC. For the first implementation cycle, the investment will cover only 8 manual surface stations and 1 Automatic Weather Station (AWS), resulting in a total of 8 functional GBON-compliant sites. The AWS to be installed at the METTELSAT headquarters is intended to serve as a preparatory step toward a broader transition to automated systems in future cycles and thus will not count for GBON compliance. For cycle 2, the number and type of stations (AWS/UAs) are yet to be defined and will be determined based on the outcomes and lessons learned from Cycle 1. The final decision on whether to prioritize additional AWS or upper-air stations will be guided by the recommendations of the peer advisor.

Station type	Approved National GBON target	Cycle 1 Plan
Surface (AWS)	68	8 manual stations (+1 AWS at HQ)
Upper-air stations	12	0

Table 1. refers to the GBON approved target for DRC, and the proposed Cycle 1 plan.

Additionally, improvements in data transmission and processing capabilities will ensure that DRC's meteorological data is effectively integrated into global forecasting models, thereby strengthening the country's ability to anticipate/respond to weather- and climate-related risks. In view of both its geographical extent and location, these investments will allow the DRC to contribute significantly to the World Meteorological Organization Integrated Global Observing System (WIGOS).

Sequential Approach to closing GBON gaps:

Recognizing the scale of investment required to achieve full GBON compliance in the DRC, the peer advisors have suggested a sequential approach (at times referred to as a "phased approach") to implementation. This strategy ensures a progressive and structured upgrade of meteorological infrastructure while allowing METTELSAT to develop institutional and technical capacity over time. Each "Investment Cycle", to be associated with a dedicated SOFF Investment Request, builds upon the previous ones, ensuring efficient scaling and sustainability of operations. The present Investment Request corresponds to Investment Cycle 1 in the DRC. We aim at keeping the Investment Cycles short (typically, 2 years of active Investment + 1 year of commissioning). This ensures that we are able to a) maintain an agile approach, and b) rapidly incorporate the lessons learned into the solution, while c) better assess and mitigate the risks associated with a given Investment Cycle.

Investment Cycle 1 (3 years): Rehabilitation and stabilization of key (manual) surface stations

The focus of this Cycle is to restore and stop the ongoing decline of a key subset of existing meteorological infrastructure, ensuring that METTELSAT has a solid operational baseline before expanding the network. Doing so requires to:

- *Conduct pre-installation environmental and feasibility assessments for station rehabilitation on key sites to be targeted in Investment Cycles 1 and 2.*
- *Refurbish the manual observing stations on 8 key sites.*
- *Deploy 1 Automatic Weather Station (AWS) on the site of Kinshasa-Binza*
- *Upgrade data transmission infrastructure to ensure robust and standardized data flow between METTELSAT and WMO systems.*
- *Implement a preventive maintenance program for both manual and existing AWS systems to ensure sustainability and minimize equipment failures.*
- *Refurbish the Calibration Facility at the METTELSAT headquarters, with a focus on pressure measurements, and setup calibration Standard Operating Procedures (SOPs) for digital barometers.*
- *Deliver targeted training on station maintenance, calibration, real-time data processing, and WIGOS/WIS2.0 compliance.*

- Develop procurement, logistics, and operational plans to ensure timely delivery of equipment and spare parts.
- Engage with national authorities to institutionalize METTELSAT's role in meeting GBON commitments.

The following Investment Cycles will follow the strategy outlined in Sec. 1 of the National Contribution Plan towards full GBON compliance. The key steps include:

- The strengthening/establishment of METTELSAT 'regional hubs" for network maintenance and operations,
- The deployment of a first upper-air station, and assembly of the necessary expertise within METTELSAT,
- A gradual expansion of the network to increasingly remote sites, with a controlled phase-in of AWSs,
- A gradual expansion of the upper-air network.

The specific objectives and solutions to be deployed in Investment Cycle 2 will be outlined in a dedicated Investment Request. The lessons learned from the first Investment Cycle will be fully incorporated into it, to maximize the fitness-for-purpose of the proposed solutions.

Overall, this sequential approach allows for incremental growth while ensuring that METTELSAT progressively strengthens its institutional, financial, and technical capacity. By prioritizing capacity-building alongside infrastructure expansion, the investment phase mitigates operational risks and fosters long-term sustainability.

Target easy fixes

As advocated in the National Contribution Plan, this Investment Cycle 1 aims at:

- 1) **stabilizing 8 key (existing) surface (manual) stations** to see them become GBON-compliant, and
- 2) **perform in-depth suitability tests of AWS technology** at the NMHS headquarters.

These objectives are meant to provide solid foundations for future SOFF Investment Rounds in the DRC, by:

- A) preparing key network sites to eventually evolve into Regional Maintenance Hubs & upper-air stations,
- B) preparing the DRC's NMHS for a carefully controlled, gradual transition to AWS technology at new and/or remote sites, and
- C) demonstrate to all partners (SOFF Steering Committee, Beneficiary Country, Implementing Entity, Peer Advisor) the suitability of the proposed approach to yield tangible, long-lasting improvements to the degree of GBON Compliance in the DRC.

This Funding Request is designed according to the concept of Continuous Investment/Continuous Compliance (CI/CC) outlined in the National Contribution Plan. As per Recommendation 5.6 of this Plan, this Investment Request should be approved only if it can be reasonably foreseen that rehabilitated stations will indeed be allowed to enter the SOFF compliance phase once they have been proven to be GBON compliant. This, in turn, implies that the investment and Compliance Phases will eventually be running in parallel in the Democratic Republic of Congo.

As per Recommendation 1.1, this Funding Request is designed to last 36 months, of which the first 24 will see active investments, while the last 12 will enable 1) the formal commissioning of the newly established manual GBON sites, and 2) the planning of the second Funding Request in the series. This duration of 36 months is meant to be calculated from the moment investments can be made in the country.

Create leverage

The SOFF investment will build upon and complement ongoing international efforts aimed at strengthening meteorological and climate resilience initiatives in DRC. The **World Bank's Hydromet** Program has provided institutional support but has not addressed critical infrastructure gaps. The **CREWS** Initiative focuses on enhancing early warning systems, but its effectiveness is limited by the absence of high-quality meteorological data. Similarly, the **African Development Bank's Climate Resilience Program** emphasizes policy and institutional development without direct investments in station deployment. By aligning with these existing initiatives, the SOFF investment will maximize impact and ensure a coordinated, complementary approach to improving DRC's meteorological capacity.

Overview of climate finance investments in the Democratic Republic of Congo:

Funding Mechanism	Project Title	Description	Funding Amount (USD)	Status
Climate Risk and Early Warning Systems (CREWS)	Strengthening Hydro-Meteorological and Early Warning Services	<i>Enhances flood and strong wind forecasting, providing updated bulletins every 3 hours. Covers 300,000 people with flood early warning systems in two watersheds.</i>	Not specified	Project ended in 2024
Climate Risk and Early Warning Systems (CREWS)	Accelerated Support Window (ASW)	<i>Follow-up to the CREWS project, to wrap-up remaining tasks.</i>	USD 250k	Ongoing (ended on 12.2025)
African Development Bank (AfDB)	Moyi Power Project	<i>Aims to provide clean energy access to over one million people in the DRC, contributing to sustainable development and climate resilience.</i>	Not specified	Ongoing
World Bank	Country Climate and Development Report (CCDR)	<i>Supports DRC's efforts to achieve development goals by quantifying climate change impacts and outlining policies for climate resilience.</i>	Not specified	Published in 2023
Green Climate Fund (GCF)	Renewable Energy Performance Platform (REPP 2)	<i>Supports renewable energy projects in sub-Saharan Africa, including the DRC, to reduce greenhouse gas emissions and promote sustainable energy access.</i>	Not specified	Approved in FY 2023
Green Climate Fund (GCF)	KawiSafi II	<i>Accelerates access to clean energy solutions in sub-Saharan Africa, targeting underserved communities to enhance climate resilience.</i>	Not specified	Approved in FY 2023
Green Climate Fund (GCF)	Hardest-to-Reach	<i>Provides off-grid solar energy solutions to remote communities in sub-Saharan Africa, addressing energy poverty and promoting climate adaptation.</i>	Not specified	Approved in FY 2023
Climate Investment Funds (CIF)	Sustainable Agroforestry in the DRC	<i>Aims to bolster finance and climate adaptation through sustainable agroforestry practices.</i>	\$28.5 million (with an expected co-financing of \$96.15 million)	Ongoing
Adaptation Fund (AF)	National Adaptation Plan (NAP) Project	<i>Enhances resilience to climate change by advancing the adaptation planning process in the DRC.</i>	Not specified	Ongoing

	<p>USAID</p> <p>Renewable Energy Access Project</p>	<p>Mobilized \$2.25 million for clean energy projects, providing access to renewable electricity for households and businesses.</p>	<p>\$2.25 million</p>	<p>Ongoing</p>
Note: Specific funding amounts for some projects are not detailed in the provided sources.				
Maximize delivery capacity	<p>METTELSAT, with the support of the World Food Programme as the Implementing Entity and MeteoSwiss as the Peer Advisor, will oversee the implementation of the SOFF investment. The agency will leverage partnerships with regional meteorological institutions to facilitate technology transfer, enhance technical expertise, and strengthen institutional capacity.</p> <p>A new Project Management Unit (PMU) will be established specifically for the SOFF investment. This dedicated unit will include a Project Manager and a Technical Coordinator to ensure effective coordination, technical oversight, and smooth implementation of activities. While existing institutional structures may be utilized where appropriate, the new PMU will focus exclusively on SOFF-related tasks.</p> <p>Additionally, targeted capacity-building programs will be integrated into the project to equip METTELSAT personnel with the necessary skills to maintain and operate the upgraded infrastructure effectively. By investing in human resource development alongside infrastructure improvements, SOFF will ensure the long-term sustainability of meteorological operations in DRC.</p>			
Sub-regional gains	<p>To optimize cost efficiency and ensure long-term sustainability, DRC will actively pursue regional cooperation opportunities. While procurement will be handled through a joint LTA with UNDP, DRC will collaborate with neighboring countries and technical partners like Morocco on shared maintenance agreements and regional training initiatives, including technical visits and calibration trainings in Morocco. These partnerships will strengthen sub-regional meteorological networks and climate monitoring capabilities, improve data-sharing mechanisms, and contribute to more accurate weather predictions and disaster preparedness across Central Africa.</p>			
SOFF Beneficiary Country Capacity Assessment	<p><i>METTELSAT is the DRC's NMHS. Its mandate is clearly defined in a decree from 2012, but it is weakly implemented, and recent attempts at improving this situation have yet to yield results. METTELSAT faces a long-standing stream of insufficient budget allocation, with 42% of its 623 staff currently unpaid (this ratio reaches 60% in the provinces, see the Country Hydromet Diagnostics for details). All its infrastructures, observing equipment, and real estate are experiencing active decline. Many observation stations are non-functional, and even those that remain operational struggle with outdated technology and limited connectivity. A lack of structured maintenance programs further exacerbates these challenges, leading to frequent disruptions in data collection. The majority of METTELSAT staff (a significant fraction of which are today nearing or above retirement age) have received appropriate training in their discipline, but only a few have received recent training on modern scientific, technical, and ICT technologies.</i></p> <p><i>METTELSAT is largely aware of the interests and needs of its national and international stakeholders, but it finds itself extremely challenged to deliver products and services with the requested/expected quality, frequency, and/or reliability. As a result, METTELSAT currently suffers from a significant image deficit vis-à-vis its stakeholders, including governmental ones. If it can demonstrate its ability to sustainably operate a GBON network, METTELSAT could potentially improve its standing significantly.</i></p> <p><i>Operating a network of GBON stations in the DRC is no small feat. The large size of the country and its Human Development Index, coupled to the current state of the transport and communication infrastructures, as well as long-lasting instability and conflicts in several regions, all make this a complicated task. To achieve it, METTELSAT requires dedicated long-term financial, technical, and human support to see its observational infrastructure re-established and stabilized, and its staff trained to operate and exploit a modern meteorological and hydrological observation network. METTELSAT will also need to deploy sound financial processes, to ensure the best possible use of financial investments.</i></p> <p><i>The SOFF investment will directly address these systemic challenges by equipping METTELSAT with modern tools, technical training, and sustainable operational frameworks to ensure a more resilient and reliable meteorological service.</i></p>			

Investment Phase Alignment with the GBON National Contribution Plan	<p>The SOFF investment phase is fully aligned with the GBON National Contribution Plan. The proposed activities included in this first Investment Cycle, including infrastructure development, capacity building, and enhanced data-sharing mechanisms, are designed to a) bring key METTELSAT surface stations into full compliance with GBON requirements, and, in so doing b) setup solid structural, operational, human, and governance bases for subsequent sequential network expansions in future Investment Cycles. The project nonetheless aims to maintain an agile approach, such that any necessary modifications to implementation plans will be made in consultation with stakeholders to maintain alignment with national and regional climate adaptation strategies.</p>
Execution model and implementation arrangements	<p>The World Food Programme (WFP) and METTELSAT (Météo RDC) will implement the project through a national execution strategy, ensuring that project activities are carried out in collaboration with the national meteorological agency. Under this arrangement, WFP and METTELSAT will work together to execute project activities efficiently.</p> <p>WFP will be responsible for financial supervision, managing the project budget, overseeing fund allocation, and processing transfers to Météo RDC. All financial and management commitments will be strictly aligned with WFP's financial regulations and standards, ensuring transparency and accountability in fund utilization.</p> <p>METTELSAT will ensure that all planned activities are executed as expected to achieve the project's objectives. Its specific responsibilities include stakeholder engagement, the preparation and submission of annual and quarterly work plans, and fund disbursement requests. METTELSAT will also be responsible for submitting timely narrative and financial reports to WFP. Additionally, it will oversee the operation, maintenance, and calibration of surface and upper-air stations, ensuring that data collection, analysis, and dissemination adhere to Global Basic Observing Network (GBON) standards.</p> <p>To ensure effective coordination and oversight, a Project Steering Committee will be established at both strategic and technical levels, comprising WFP and METTELSAT representatives. The technical steering committee will meet monthly, while the strategic steering committee will convene quarterly to discuss project progress and strategic direction.</p> <p>Procurement and infrastructure management: Most procurement of specialized goods and services will be managed by WFP, leveraging its strong procurement capacities and expertise in sourcing meteorological equipment. At the start of the project, a joint procurement plan will be developed between WFP, METTELSAT, and relevant technical partners to outline key procurement milestones, technical specifications, and delivery timelines. Where relevant, longer-term service agreements will be established with suppliers to cover the supply, installation, and maintenance of critical equipment, including GBON Automatic Weather Stations (AWS) and upper-air station infrastructure.</p> <p>Regional coordination and field operations: Close coordination between METTELSAT's headquarters and regional operational hubs will be established, ensuring robust feedback mechanisms for effective project implementation. WFP's field offices will provide decentralized support, facilitating local coordination and monitoring of project activities.</p> <p>Data transmission and GBON compliance: METTELSAT, with support from WFP and relevant technical partners, will be responsible for ensuring the transmission of meteorological data to WMO's WIS 2.0 platform, in compliance with GBON requirements. This will include strengthening METTELSAT's capacity in data management, quality assurance, and real-time weather observation.</p>
Private sector involvement	<p><i>For this initial Investment Cycle, the public sector is not expected to play a role. As per Recommendation 2.10 of the National Contribution Plan, the validity/efficiency of the chosen business model (currently "fully public") will be re-evaluated for each subsequent Funding Requests.</i></p> <p>To enhance long-term sustainability, the project will explore partnerships with private sector providers for the supply, maintenance, and upgrading of meteorological infrastructure. Service agreements will be established with suitable suppliers for AWS maintenance, radiosonde calibration, and other specialized services.</p>

Civil society participation	<p><i>The role and engagement of civil society organizations (CSOs) and relevant stakeholders will be limited in this initial Investment Cycle. The significant image deficit of the METTELSAT warrants and requires to first achieve tangible, visible results before actively engaging with external partners. Specifically, as per Recommendation 5.19 of the National Contribution Plan, METTELSAT will, in this Investment Cycle, only begin to engage local stakeholders in the vicinity of rehabilitated GBON stations (by means of active outreach programs, open days, and site visits) during the "Commissioning" period at the end of the Investment Round. The air force is going to be the main exception to this. METTELSAT will need to engage very strongly with this key stakeholder throughout the Investment Cycle, in view of the plan to establish a GBON site at the military airport of N'Dolo in Kinshasa.</i></p> <p>More broadly, the project recognizes the importance of community participation in safeguarding meteorological infrastructure, the project will include public awareness campaigns at the district level to inform communities about the importance of meteorological data and early warning systems. Collaboration with civil society organizations (CSOs) will also be explored to mitigate risks of vandalism and theft at observation sites.</p>
Fiduciary systems	<p>WFP and METTELSAT will undersign a binding Letter of Agreement, outlining the responsibilities of the two parties, including reporting, monitoring, evaluation, audit, payments, purpose, terms, amendments, and termination for the duration of the SOFF investment phase.</p>
Social and environmental safeguards	<p>Social safeguards: The implementation of the SOFF investment phase will be carried out with full consideration of human rights principles, ensuring that none of the activities violate any human rights. In fact, the project's outcomes will actively support human well-being, social equity, and inclusion while also helping to reduce environmental risks associated with climate change and natural disasters.</p> <p>As the Implementing Entity, WFP will ensure that all activities under the SOFF project in the DRC align with its Environmental and Social Safeguards (ESS) Framework. This framework is designed to prevent and mitigate any potential negative environmental and social impacts, while enhancing positive outcomes for communities. WFP applies a risk-based approach and screens all projects using its Environmental and Social Screening Tool (ESST) to identify potential risks and determine appropriate mitigation measures. Core principles of WFP's ESS include the promotion of gender equality, the protection of vulnerable groups, meaningful stakeholder engagement, grievance redress mechanisms, and the prevention of harm to people or the environment. In the context of the SOFF investment, METTELSAT and other stakeholders will be engaged in the ESS screening and compliance process, and any infrastructure-related activities will be subject to safeguards that meet both WFP and national standards.</p> <p>Gender policy: As recommended in the National Contribution Plan (NCP) documentation, the beneficiary is advised to assess human capacity gaps by analyzing staff competencies, educational levels, and skill gaps among technicians, experts, and leadership. This assessment should also consider gender balance and equal opportunities.</p> <p>Furthermore, the beneficiary is encouraged to develop gender action plans aimed at promoting gender balance, empowering women, and implementing non-discrimination measures within the organization. This activity will be guided by an internal gap analysis and the WMO Gender Action Plan, ensuring a structured and inclusive approach.</p> <p>General Safeguards:</p> <p>Overall, the project will adhere to WFP's existing social and environmental safeguard policies, as WFP serves as the Implementing Entity. The Peer Advisor will be available to discuss these matters as needed to ensure compliance with international best practices.</p>

<p>Dispute resolution mechanism</p>	<p>WFP is first and foremost accountable to the people it serves in DRC, ensuring safety, dignity, and the prevention of harm, while promoting meaningful access, participation, and empowerment. These principles guide WFP's efforts in mainstreaming protection across all its interventions. This means ensuring that affected populations—including women, youth, elderly, Indigenous peoples, people living with HIV/AIDS, persons with disabilities, and other vulnerable groups—actively participate in decisions that affect their lives. WFP is committed to providing accurate information for decision-making and ensuring access to safe, anonymous, and responsive feedback mechanisms to uphold transparency and accountability.</p> <p>To translate this commitment into action, WFP in DRC will conduct contextual and risk assessments alongside periodic monitoring to identify protection concerns and implement prevention and mitigation measures. A major focus will be on establishing robust community feedback mechanisms that cater to diverse population groups, ensuring timely responses and allowing for programmatic adjustments based on feedback.</p> <p>To meet the needs of affected communities, WFP DRC will implement multiple feedback channels, including:</p> <ul style="list-style-type: none"> • Hotline numbers • Help/litigation desks • Suggestion boxes • Community complaint committees <p>To enhance accountability, WFP DRC is exploring the integration of a digital Community Feedback Mechanism (CFM) solution—potentially leveraging existing WFP tools such as SUGARCRM—which enables recording, escalation, resolution of cases, and systematic analysis of feedback for management decision-making. This system will ensure timely, confidential, and effective case resolution, in line with WFP's CFM Standard Operating Procedures (SOPs).</p> <p>Additionally, WFP is prioritizing the systematic integration of community engagement approaches into all phases of its programme cycle in DRC, ensuring that assistance is targeted based on humanitarian needs and aligned with the priorities and preferences of affected populations. Investing in community engagement through participatory tools and effective communication channels is essential to fostering trust, acceptance, and unhindered humanitarian access while also ensuring the safety of WFP personnel and assets.</p> <p>A two-way community feedback mechanism will be integrated to monitor community perceptions of field-level SOFF activities, as part of WFP's SOFF investment phase community engagement strategy. Where possible, this will be linked to other ongoing WFP programmes, such as the anticipatory action programme, to strengthen community-based preparedness efforts.</p> <p>WFP's Community Feedback Mechanism (CFM) Assurance Standards in DRC</p> <p>Ensuring effective community feedback mechanisms (CFM) is a key pillar of WFP's Community Engagement for Accountability to Affected Populations (AAP) Strategy. In DRC, WFP's CFMs will be guided by six assurance standards:</p> <ul style="list-style-type: none"> • Reach and accessibility of CFM channels • Minimum data collection for case management • Case handling procedures ensuring confidentiality and timeliness • Information management (IM) systems for tracking and analysis • Feedback analysis, reporting, and tracking to inform program decisions • Quality assurance procedures to maintain CFM effectiveness <p>Through these efforts, WFP in DRC will enhance accountability, empower communities, and ensure that humanitarian assistance is responsive to the needs of those most at risk.</p>
<p>Additional relevant policies and procedures</p>	<p>WFP is a Green Climate Fund and Adaptation Fund accredited entity, a Climate Risks & Early Warning Steering Committee member, a member of the Risk-Informed Early Action Partnership (REAP) Secretariat, and a lead partner in the EW4All Global Executive and Africa Action Plan.</p> <p>WFP is a Secretariat Member and co-host of the Regional Anticipatory Action Working Group (RAAWG) and host of the sub-technical working group on climate services and triggers for anticipatory action, linked to the SADC Climate Services Centre community of practice.</p> <p>WFP has corporate supply chain and procurement policies and guidelines that will also apply to relevant activities under this project.</p>

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
WFP	30	10	30	10	20	100
WMO	30	10	30	10	20	100
Total contribution by target	60	20	60	20	40	
Project contribution to SDG by target	30	10	30	10	20	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.

Outcome	Output	Description			
	Activities				
	Title	Description	Lead	Participating	Other
	Conduct national and regional consultations with CSOs, key stakeholders, and local and regional authorities to align METTELSAT with GBON standards, raise awareness of its benefits, and foster local ownership of GBON stations.	Conduct national and regional consultations with CSOs, key stakeholders, and local and regional authorities to align METTELSAT with GBON standards, raise awareness of its benefits, and foster local ownership of GBON stations.	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	
	Organization of the Launch workshop (Political opening remarks followed by Sessions to work on the Costed Work Plan and implementation Timeline & Plan) [start of year 1]	Organization of the Launch workshop (Political opening remarks followed by Sessions to work on the Costed Work Plan and implementation Timeline & Plan) [start of year 1]	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	
	Organization of the Mid-Point workshop (review of the first investment year, review of the implementation timeline for the second year 2) [start of year 2]	Organization of the Mid-Point workshop (review of the first investment year, review of the implementation timeline for the second year 2) [start of year 2]	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	
	Organization of the Compliance workshop (review of investment status, confirmation of sites ready for commissioning, discussion/planning of mitigation measures in case of delays) [start of year 3]	Organization of the Compliance workshop (review of investment status, confirmation of sites ready for commissioning, discussion/planning of mitigation measures in case of delays) [start of year 3]	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	

Outcome	Output	Description		
	Site visits and discussions with local airport authorities to formalize the interactions between METTELSAT and RVA at each sites.	Site visits and discussions with local airport authorities to formalize the interactions between METTELSAT and RVA at each sites.	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization)
	Quarterly meetings of the SOFF Project Steering Committee involving key government stakeholders.	Quarterly meetings of the SOFF Project Steering Committee involving key government stakeholders.	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization)
	Bimonthly technical sessions to follow up on the work plan and report progress on indicators.	Bimonthly technical sessions to follow up on the work plan and report progress on indicators.	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization)
	Regular documentation and tracking of the project's progress and outcomes, for debriefing and outreach purposes	Regular documentation and tracking of the project's progress and outcomes, for debriefing and outreach purposes	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization)
	Final Communication Campaign (community outreach, media engagement, and publication of project results)	Final Communication Campaign (community outreach, media engagement, and publication of project results)	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization)
	Final Closing Workshop (review of achievements, lessons learned, sustainability plan validation)	Final Closing Workshop (review of achievements, lessons learned, sustainability plan validation)	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization)
	Final Compliance Verification Workshop	Final Compliance Verification Workshop	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization)
	Organization of 2 open-days per newly established GBON site, to raise awareness and ownership by the local population.	Organization of 2 open-days per newly established GBON site, to raise awareness and ownership by the local population.	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization)

Outcome	Output	Description
	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
	Develop governance structures and operational frameworks for METTELSAT, incl. sound project management practices.	Develop governance structures and operational frameworks for METTELSAT, incl. sound project management practices.	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	
	Refurbish the calibration laboratory at the METTELSAT headquarters, with a focus on digital barometers.	Refurbish the calibration laboratory at the METTELSAT headquarters, with a focus on digital barometers.	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	
	Establish data sharing protocols and operational guidelines for WMO integration	Establish data sharing protocols and operational guidelines for WMO integration	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	
	Development of METTELSAT's business model that aligns with GBON Network's sustainability objectives	Development of METTELSAT business model that aligns with GBON Network's sustainability objectives	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	
	Perform in-depth assessment of key sites with respect to their suitability for deployment of upper-air stations in subsequent Investment Cycles	Perform in-depth assessment of key sites with respect to their suitability for deployment of upper-air stations in subsequent Investment Cycles	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	
	Setup 24/7 shifts of observers at key stations with assembly of hourly SYNOPs. (Over the 3-4 Years) + travel allowance	Setup 24/7 shifts of observers at key stations with assembly of hourly SYNOPs. (Over the 3-4 Years) + travel allowance	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	
	Recruitment of SOFF Project Manager and Technical Coordinator of SOFF	Recruitment of SOFF Project Manager and Technical Coordinator of SOFF	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	

Outcome	Output	Description		
	Develop a sustainability plan to integrate METTELSAT into national and regional meteorological frameworks	Develop a sustainability plan to integrate METTELSAT into national and regional meteorological frameworks	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization)
	Rehabilitate the HQ AWS + and repairs of vehicles	Rehabilitate the HQ AWS and conduct essential repairs of existing vehicles. The vehicles used for SOFF implementation were originally procured through a separate initiative funded by the Climate Risk and Early Warning Systems (CREWS) initiative.	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization)
	Develop SOPs for preventive maintenance and station operations.	Develop SOPs for preventive maintenance and station operations.	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization)
	Update and validate SOPs for preventive maintenance and station operations (final revision).	Update and validate SOPs for preventive maintenance and station operations (final revision).	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization)
	Finalize and adopt METTELSAT Business Model for post-SOFF sustainability	Finalize and adopt METTELSAT Business Model for post-SOFF sustainability	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization)
	Recruitment of SOFF EWS HQ Support	Recruitment of SOFF EWS HQ Support [20% of cost sharing]	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • 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
	Train technical staff and observers in station operations, maintenance, calibration, WIGOS/WIS 2.0, data monitoring, and the use of the WIS 2.0 box for manual data upload.	Train technical staff and observers in station operations, maintenance, calibration, WIGOS/WIS 2.0, data monitoring, and the use of the WIS 2.0 box for manual data upload.	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	
	Provide WMO-compliant training on real-time data-sharing and analysis.	Provide WMO-compliant training on real-time data-sharing and analysis.	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	
	Facilitate regional learning programs and study tours for technical personnel.	These regional programs will offer broad-based training, peer learning, and capacity-building opportunities in the country. This activity is distinct from the targeted technical visits of METTELSAT delegations to neighboring SOFF-benefiting countries, which aim to assess specific operational challenges and identify innovative, context-specific solutions for AWS maintenance and upper-air station operations.	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	
	Implement training programs for leadership and operational staff.	Implement training programs for leadership and operational staff.	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	
	Implement a stable, robust compensation mechanism for observers (night time & weekend & national holidays, plus transfer to site via local transports).	Implement a stable, robust compensation mechanism for observers (night time & weekend & national holidays, plus transfer to site via local transports).	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	

Outcome	Output	Description		
	Technical visit and training on calibration of meteorological instruments (Casablanca and Nairobi calibration centers, WMO RTCs, or partner centers)	Technical visit and training on calibration of meteorological instruments (Casablanca and Nairobi calibration centers, WMO RTCs, or partner centers)	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization)
	METTELSAT delegations visits near-by SOFF-benefiting countries to assess challenges and innovative solutions for maintaining AWS networks and operating upper-air stations	METTELSAT delegations visits near-by SOFF-benefiting countries to assess challenges and innovative solutions for maintaining AWS networks and operating upper-air stations	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization)
	Refresher training for technical staff and observers (focus on calibration, WIS 2.0, data monitoring).	Refresher training for technical staff and observers (focus on calibration, WIS 2.0, data monitoring).	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization)
	Women-focused mentorship program to strengthen female participation in GBON compliance	Women-focused mentorship program to strengthen female participation in GBON compliance	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • 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
	Rehabilitate 8 manual observation stations	Rehabilitate 8 manual observation stations including restoring Ndolo, Kananga, Mbuji Mayi, and Kolwezi + new office construction for Gemena and Isiro Sites)	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	
	Procurement of spare parts (sensors and accessories) for the 8 selected stations	Acquisition of sensors and accessories to maintain and improve selected stations.	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	
	Deploy ICT and automation systems, including WIS2.Box and cloud services, to enhance data transmission and strengthen data-sharing systems for compliance with GBON standards.	Installation of WIS2.Box, cloud services, and automation tools to enhance data transmission and GBON compliance.	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	
	Weather logbook (paper format for 3 years, Digital Tablet/mobile for recording) for national data sharing (Site to Binza)	Provision of paper logbooks (3 years) and digital tablets/mobile devices for national data sharing.	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	
	Internal performance review and documentation of lessons learned from the operation of 8 manual stations.	Internal performance review and documentation of lessons learned from the operation of 8 manual stations.	WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	
	Procurement and deployment of new AWS stations at the National headquarters (incl. Technical Assistance, installation honorarium) as suitability test for DRC		WFP - WFP (World Food Programme)	<ul style="list-style-type: none"> • WMO - WMO (World Meteorological Organization) 	

Outcome	Output		Description																					
	Development of civil works for the installation of new test station, Fencing and securization		WFP - WFP (World Food Programme)	• WMO - WMO (World Meteorological Organization)																				
	Final maintenance and calibration cycle for test AWS station at HQ (Kinshasa).		WFP - WFP (World Food Programme)	• WMO - WMO (World Meteorological Organization)																				
	Assemble necessary (maintenance, calibration, communication, ...) procedures and assess the system's suitability for subsequent network-wide deployment	For test AWS	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 <table border="1"> <thead> <tr> <th>Title</th><th>Description</th><th>Lead Participating Organization</th><th>Participating Organization</th><th>Other Organizations</th></tr> </thead> <tbody> <tr> <td>Establish long-term operational cost structures</td><td>Define sustainable financial mechanisms for ongoing METTELSAT operations.</td><td>WFP - WFP (World Food Programme)</td><td>• WMO - WMO (World Meteorological Organization)</td><td></td></tr> <tr> <td>Implement Continuous Verification and Compliance Monitoring</td><td>Ensure adherence to standards through regular system checks and evaluations.</td><td>WFP - WFP (World Food Programme)</td><td>• WMO - WMO (World Meteorological Organization)</td><td></td></tr> <tr> <td>Risk review and mitigation update (security, staff retention, equipment protection)</td><td>Risk review and mitigation update (security, staff retention, equipment protection)</td><td>WFP - WFP (World Food Programme)</td><td>• WMO - WMO (World Meteorological Organization)</td><td></td></tr> </tbody> </table>				Title	Description	Lead Participating Organization	Participating Organization	Other Organizations	Establish long-term operational cost structures	Define sustainable financial mechanisms for ongoing METTELSAT operations.	WFP - WFP (World Food Programme)	• WMO - WMO (World Meteorological Organization)		Implement Continuous Verification and Compliance Monitoring	Ensure adherence to standards through regular system checks and evaluations.	WFP - WFP (World Food Programme)	• WMO - WMO (World Meteorological Organization)		Risk review and mitigation update (security, staff retention, equipment protection)	Risk review and mitigation update (security, staff retention, equipment protection)	WFP - WFP (World Food Programme)	• WMO - WMO (World Meteorological Organization)	
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Signature Indicators

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year	Line Out / In
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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	2026	9	2029
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	9	2029

Project Indicators

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year
# of national and regional consultations conducted with CSOs, key stakeholders, and local and regional authorities to align METTELS AT with GBON standards, raise awareness of its benefits, and foster local ownership of GBON stations.			Progress updates/Annual or quarterly reports	Capacity	At closure	Country	Number	0	2026	9	2029
No components available.											
# of launch workshop conducted			Progress updates/Annual or quarterly reports	Capacity	At closure	Country	Number	0	2026	1	2029
	Percentage of female participants in workshops		Progress updates/Annual or quarterly reports	Capacity	At closure	Country	Percentage	0	2026	30	2029

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year
# of sustainability plans developed to integrate METTELS AT into national and regional meteorological frameworks			Progress updates/Annual or quarterly reports	Capacity	At closure	Country	Number	0	2026	1	2029
	No components available.										
Support provided for the rehabilitation of the HQ AWS and the maintenance and repair of vehicles...			Progress updates/Annual or quarterly reports	Capacity	At closure	Country	Yes/No	0	2026	Yes	2029
	No components available.										
# of technical staff and observers trained on station operations, maintenance, calibration, WIGOS/WIS 2.0, data monitoring, and the use of the WIS 2.0 box for manual data upload.			Progress updates/Annual or quarterly reports	Capacity	At closure	Country	Number	0	2026	10	2029

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year
	Percentage of female trained to monitor GBON compliance		Progress updates/Annual or quarterly reports	Capacity	At closure	Country	Percentage	0	2026	20	2029
# of WMO-compliant trainings provided on real-time data-sharing and analysis			Progress updates/Annual or quarterly reports	Capacity	At closure	Country	Number	0	2026	3	2029
	Percentage of female trained		Progress updates/Annual or quarterly reports	Capacity	At closure	Country	Percentage	0	2026	20	2029
# of regional learning programs and study tours facilitated for technical personnel			Progress updates/Annual or quarterly reports	Capacity	At closure	Country	Number	0	2026	2	2029
	Percentage of female trained		Progress updates/Annual or quarterly reports	Capacity	At closure	Country	Percentage	0	2026	20	2029
# of training programs implemented for leadership and operational staff			Progress updates/Annual or quarterly reports	Capacity	At closure	Country	Number	0	2026	2	2029

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year
No components available.											
Stable, robust compensation mechanism implemented for observers (night time & weekend & national holidays, plus transfer to site via local transport s).			Progress updates/Annual or quarterly reports	Capacity	At closure	Country	Yes/No	0	2026	Yes	2029
No components available.											
# of technical visits and trainings conducted on calibration of meteorological instruments			Progress updates/Annual or quarterly reports	Capacity	At closure	Country	Number	0	2026	2	2029
	percentage of female trained		Progress updates/Annual or quarterly reports	Capacity	At closure	Country	Percentage	0	2026	20	2029

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year
# of METTELS AT delegations visits conducted to near-by SOFF-benefitin g countries to assess challenges and innovative solutions for maintaining AWS networks and operating upper-air stations			Progress updates/Annual or quarterly reports	Capacity	At closure	Country	Number	0	2026	1	2029
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	Unlikely	Moderate	WFP, as IE, will implement the SOFF project activities as per corporate procurement and fund management regulations, subject to rigorous control .	
SOFF-funded investments cause environmental or social impacts	• Social and Environmental	Medium	Unlikely	Moderate	SOFF in DRC will follow WFP's environmental and social standards, including its grievance and control mechanisms. The financial investments have modest environmental and social impacts, with the key risk being METTELSAT's reputation if the project fails to deliver results. Key Recommendations: - Target quick fixes within 24 months (+12 months validation) (5.10). - Allocate sufficient personnel to oversee implementation (5.11). - Maintain close coordination with the Implementing Entity and Peer Advisor (5.12). - Raise staff awareness on environmental risks (e.g., mercury instruments, e-waste) (5.13). - Assess and document environmental/social impacts in Investment Requests (5.14).	

NMHS staff depart after being trained	• Operational	High	Likely	Moderate	<p>The SOFF Compliance phase provides financial support for operations, maintenance, and staff costs, helping hire/retain METTELSAT personnel, especially in the provinces. To ensure long-term sustainability, METTELSAT must motivate staff by emphasizing the global importance of their work and access additional funding to incentivize key personnel. Key Recommendations:</p> <ul style="list-style-type: none"> - Investment Cycle funding requests should assess METTELSAT's staffing needs, including direct staff-cost support during the SOFF Compliance phase (5.5). - The SOFF Steering Committee should only approve funding if (re-)habilitated stations are expected to enter SOFF Compliance upon GBON compliance (5.6). - Enhance staff retention by advocating for better salaries, offering stimulating career opportunities, and ensuring skill growth (5.7). - Ensure knowledge redundancy among staff to maintain institutional resilience in case of departures (5.8). - Develop comprehensive training materials to standardize and accelerate onboarding, ensuring high-quality capacity building (5.9). - Maintain supplier service agreements and peer advisor engagement to ensure ongoing technical support and training for new staff. 	
Slow implementation and delays in procurement, installation and capacity building activities.	• Operational	High	Possible	Moderate	<p>As SOFF Implementing Entity, WFP will lead procurement using its country office capacities, leveraging LTAs with suppliers to expedite processes. Service agreements will ensure installation, maintenance, and capacity building, with WFP continuously monitoring progress. MeteoSwiss (SOFF Peer Advisor) will provide technical advice to WFP on any challenges. The SOFF Secretariat will oversee implementation and support troubleshooting, while WMO provides ad hoc GBON guidance. Gradual transition from manual to automatic systems to minimize operational risks. Installation will start with accessible sites before expanding. AWS deployment in remote GBON sites should only occur after establishing a solid network backbone (Recommendation 5.15).</p>	

<p>After the conclusion of the Investment phase, GBON data are not collected or shared or are shared of insufficient quality.</p>	<ul style="list-style-type: none"> • Operational 	High	Likely	Major	<p>SOFF will fund operations and maintenance through results-based payments, triggered once METTELSAT shares GBON data. The first year's funding is provided upfront after infrastructure installation to ensure data-sharing capability before regular payments begin. To ensure long-term sustainability, a business model will be developed to secure ongoing resource allocation for GBON network maintenance beyond the investment phase.</p> <p>Recommendation 5.16: METTELSAT should establish a performance-validation mechanism to authorize SOFF-funded staff payments, potentially managed by the Human Richness Office.</p> <p>- Sequential Investment Cycles will reduce risks, with this request being the first.</p> <p>- WMO will guide MeteoSwiss & WFP on GBON implementation and monitor compliance under the SOFF Compliance Framework, providing quarterly feedback.</p> <p>- Routine maintenance and calibration SOPs will be developed, and METTELSAT staff at central and decentralized levels will be trained to ensure proper system upkeep.</p> <p>- SOFF investment will support the development of a robust financial sustainability plan to ensure that maintenance and operations continue beyond SOFF compliance funding.</p> <p>- Manual GBON data uploads to WIS 2.0 (Rec. 3.34) will simplify and strengthen the data flow.</p>	
<p>Destruction or theft of SOFF-financed equipment and infrastructure.</p>	<ul style="list-style-type: none"> • Operational 	High	Likely	Major	<p>Community engagement and site security are key to protecting GBON sites in DRC.</p> <p>- Prioritize equipment safety over measurement quality when selecting sites, opting for secure locations like airports, schools, and public offices (5.17).</p> <p>- Clearly mark SOFF-funded sites with explanatory panels in local languages to enhance visibility and understanding (5.18).</p> <p>- Implement a structured outreach program using METTELSAT staff and Civil Society Organizations (CSOs) to educate communities on the importance of data sharing as a public resource and the benefits of improved observations for disaster preparedness and resilience (5.19).</p> <p>- Ensure strong security measures to protect sites from threats, including natural hazards. Engage local communities, with CSO support, to strengthen site protection and reduce risks (5.20).</p> <p>- Immediately engage communities at sites with past theft or vandalism after SOFF equipment deployment to ensure rapid local buy-in and site security (5.20).</p>	

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	Medium	Unlikely	Major	WFP-supported capacity-building activities for METTELSAT, complementary to the SOFF investment phase will focus on enhancing METTELSAT's ability to effectively utilize data in alignment with national policy frameworks for early warning, forecast-based financing, and anticipatory actions.	
Insufficient institutional capacity and/or political commitment to ensure successful implementation of SOFF.	• Operational	Very High	Very Likely	Major	The CI/CC approach outlined in the National Contribution Plan is (also) designed to gradually strengthen the position of METTELSAT vis-à-vis its stakeholders. Recommendation 5.1. Until the financial situation of METTELSAT improves, SOFF should stand ready to support all the operational costs of newly established GBON observing sites, and proceed with Investment Requests accordingly. Recommendation 5.2. Until the dispute between METTELSAT and the RVA can be resolved in such a way that a solid, collaborative relationship can be re-established between the two entities, SOFF investments should be made on RVA grounds only if it can be demonstrated explicitly that METTELSAT will be granted stable, regular, long-term access to the station.	
Programmatic targets cannot be reached because of conflict and/or political insecurity negatively affecting SOFF implementation.	• Operational	Very High	Very Likely	Major	Recommendation 5.3. In view of the security risks for the staff of METTELSAT, the WFP, the Peer Advisor, and contractors, as well as the risk of damage to METTELSAT infrastructures, SOFF investments should not be made in regions where advice against all travel is in place, as emitted (for example) by the United Kingdom Foreign, Commonwealth and Development Office.	

Budget by UNSDG Categories: Over all

Budget Lines	Description	WFP (6.5%) *	WMO (7%) *	Total
1. Staff and other personnel		\$557,571.71	\$403,500.00	\$961,071.71
2. Supplies, Commodities, Materials		\$168,137.46	\$0.00	\$168,137.46
3. Equipment, Vehicles, and Furniture, incl. Depreciation		\$651,893.47	\$0.00	\$651,893.47
4. Contractual services		\$36,966.19	\$0.00	\$36,966.19
5. Travel		\$72,162.00	\$106,500.00	\$178,662.00
6. Transfers and Grants to Counterparts		\$85,527.61	\$0.00	\$85,527.61
7. General Operating and other Direct Costs		\$225,189.94	\$0.00	\$225,189.94
Project Costs Sub Total		\$1,797,448.38	\$510,000.00	\$2,307,448.38
8. Indirect Support Costs		\$116,834.14	\$35,700.00	\$152,534.14
Total		\$1,914,282.52	\$545,700.00	\$2,459,982.52

Performance-based Tranches Breakdown

Tranche			Total
Tranche 1	WFP (70%)	\$1,339,997.76	\$1,521,879.57
	WMO (33.33%)	\$181,881.81	
Tranche 2	WFP (30%)	\$574,284.76	\$756,166.57
	WMO (33.33%)	\$181,881.81	
Tranche 3	WFP (0%)	\$0.00	\$181,936.38
	WMO (33.34%)	\$181,936.38	
			\$2,459,982.52

Results based budget

Outcome *	Output *	Agency *	Budget (USD) *
1. GBON institutional and human capacity developed		Sub Total	\$1,618,963.97
	1.1 National Consultations conducted	WFP (6.5%)	\$208,141.67
	1.2 NMHS institutional capacity developed	WFP (6.5%)	\$719,433.49
	1.3 NMHS human capacity developed	WFP (6.5%)	\$181,388.81
	1.3 NMHS human capacity developed	WMO (7%)	\$510,000.00
2. GBON infrastructure in place		Sub Total	\$620,177.07
	2.2 Improved land-based stations in place.	WFP (6.5%)	\$620,177.07
3. Sustained compliance with GBON		Sub Total	\$68,307.35
	3.1 GBON land-based stations commissioning period completed.	WFP (6.5%)	\$68,307.35
Total			\$2,307,448.39

Programme Outcome Costs

Outcome	Output	Activity	Implementing Agent	Time Frame			
				2026	2027	2028	2029
				1	1	1	1
1. GBON institutional and human capacity developed							
	1.1 National Consultations conducted	Conduct national and regional consultations with CSOs, key stakeholders, and local and regional authorities to align METTELSAT with GBON standards, raise awareness of its benefits, and foster local ownership of GBON stations.	WFP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			WMO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Organization of the Launch workshop (Political opening remarks followed by Sessions to work on the Costed Work Plan and implementation Timeline & Plan) [start of year 1]	WFP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			WMO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Organization of the Mid-Point workshop (review of the first investment year, review of the implementation timeline for the second year 2) [start of year 2]	WFP	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			WMO	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Outcome	Output	Activity	Implementing Agent	Time Frame			
				2026	2027	2028	2029
				1	1	1	1
		Organization of the Compliance workshop (review of investment status, confirmation of sites ready for commissioning, discussion/planning of mitigation measures in case of delays) [start of year 3]					
			WFP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			WMO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Site visits and discussions with local airport authorities to formalize the interactions between METTELSAT and RVA at each sites.					
			WFP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			WMO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Quarterly meetings of the SOFF Project Steering Committee involving key government stakeholders.					
			WFP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			WMO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Bimonthly technical sessions to follow up on the work plan and report progress on indicators.					
			WFP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			WMO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Regular documentation and tracking of the project's progress and outcomes, for debriefing and outreach purposes					
			WFP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			WMO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Final Communication Campaign (community outreach, media engagement, and publication of project results)					
			WFP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			WMO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Final Closing Workshop (review of achievements, lessons learned, sustainability plan validation)					
			WFP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			WMO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Final Compliance Verification Workshop					
			WFP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			WMO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Organization of 2 open-days per newly established GBON site, to raise awareness and ownership by the local population.					
			WFP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			WMO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	1.2 NMHS institutional capacity developed						
		Develop governance structures and operational frameworks for METTELSAT, incl. sound project management practices.					
			WFP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			WMO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Refurbish the calibration laboratory at the METTELSAT headquarters, with a focus on digital barometers.					
			WFP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			WMO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Establish data sharing protocols and operational guidelines for WMO integration					
			WFP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			WMO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Development of METTELSAT's business model that aligns with GBON Network's sustainability objectives					
			WFP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			WMO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Perform in-depth assessment of key sites with respect to their suitability for deployment of upper-air stations in subsequent Investment Cycles					
			WFP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			WMO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Setup 24/7 shifts of observers at key stations with assembly of hourly SYNOPs. (Over the 3-4 Years) + travel allowance					

Outcome	Output	Activity	Implementing Agent	Time Frame			
				2026	2027	2028	2029
				1	1	1	1
			WFP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			WMO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Recruitment of SOFF Project Manager and Technical Coordinator of SOFF					
			WFP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			WMO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Develop a sustainability plan to integrate METTELSAT into national and regional meteorological frameworks					
			WFP	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			WMO	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Rehabilitate the HQ AWS + and repairs of vehicles					
			WFP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			WMO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Develop SOPs for preventive maintenance and station operations.					
			WFP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			WMO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Update and validate SOPs for preventive maintenance and station operations (final revision).					
			WFP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			WMO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Finalize and adopt METTELSAT Business Model for post-SOFF sustainability					
			WFP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			WMO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Recruitment of SOFF EWS HQ Support					
			WFP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			WMO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1.3 NMHS human capacity developed						
		Train technical staff and observers in station operations, maintenance, calibration, WIGOS/WIS 2.0, data monitoring, and the use of the WIS 2.0 box for manual data upload.					
			WFP	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			WMO	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Provide WMO-compliant training on real-time data-sharing and analysis.					
			WFP	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			WMO	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Facilitate regional learning programs and study tours for technical personnel.					
			WFP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			WMO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Implement training programs for leadership and operational staff.					
			WFP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			WMO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Implement a stable, robust compensation mechanism for observers (night time & weekend & national holidays, plus transfer to site via local transports).					
			WFP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			WMO	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Technical visit and training on calibration of meteorological instruments (Casablanca and Nairobi calibration centers, WMO RTCs, or partner centers)					
			WFP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			WMO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		METTELSAT delegations visits near-by SOFF-benefiting countries to assess challenges and innovative solutions for maintaining AWS networks and operating upper-air stations					
			WFP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			WMO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Refresher training for technical staff and observers (focus on calibration, WIS 2.0, data monitoring).					

Outcome	Output	Activity	Implementing Agent	Time Frame			
				2026	2027	2028	2029
				1	1	1	1
		WFP		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		WMO		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Women-focused mentorship program to strengthen female participation in GBON compliance					
		WFP		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		WMO		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. GBON infrastructure in place							
	2.2 Improved land-based stations in place.						
	Rehabilitate 8 manual observation stations						
		WFP		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		WMO		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Procurement of spare parts (sensors and accessories) for the 8 selected stations						
		WFP		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		WMO		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Deploy ICT and automation systems, including WIS2.Box and cloud services, to enhance data transmission and strengthen data-sharing systems for compliance with GBON standards.						
		WFP		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		WMO		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Weather logbook (paper format for 3 years, Digital Tablet/mobile for recording) for national data sharing (Site to Binza)						
		WFP		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		WMO		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Internal performance review and documentation of lessons learned from the operation of 8 manual stations.						
		WFP		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		WMO		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Procurement and deployment of new AWS stations at the National headquarters (incl. Technical Assistance, installation honorarium) as suitability test for DRC						
		WFP		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		WMO		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Development of civil works for the installation of new test station, Fencing and securization						
		WFP		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		WMO		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Final maintenance and calibration cycle for test AWS station at HQ (Kinshasa).						
		WFP		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		WMO		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Assemble necessary (maintenance, calibration, communication, ...) procedures and assess the system's suitability for subsequent network-wide deployment						
		WFP		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		WMO		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Sustained compliance with GBON							
	3.1 GBON land-based stations commissioning period completed.						
	Establish long-term operational cost structures						
		WFP		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		WMO		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Implement Continuous Verification and Compliance Monitoring						
		WFP		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		WMO		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Risk review and mitigation update (security, staff retention, equipment protection)						
		WFP		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		WMO		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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 the Federal Office of Meteorology and Climatology - MeteoSwiss to the Democratic Republic of Congo (DRC) National Meteorological and Hydrological Services METTELSAT 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 WDQMS 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.
- Organizes exchange of knowledge and experiences and captures lessons learned.

¹ The WDQMS 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.

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	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	# of national and regional consultations conducted with Civil Society Organizations (CSOs), key stakeholders, and local and regional authorities to align METTELSAT with GBON standards, raise awareness of its benefits, and foster local ownership of GBON stations.	Support and advice to METTELSAT in the assembly of the messages (form and content) to be delivered, and the identification of the target audience.			9
	# of launch workshop conducted	In-person participation to the workshop, with support to METTELSAT in the assembly of the workshop agenda & format, and the definition of clear, explicit objectives (both for the workshop, and the project over the subsequent year). Support to the discussions, including for the identification of mitigation measures in case of project delays and/or non-conformities.			1

	Facilitation of smooth exchanges between the Implementing Entity and the Beneficiary Country.	
	<p>Facilitation of smooth exchanges between SOFF partners and SOFF Secretariat, WMO regional center in Nairobi, including RICs, and GISCs.</p> <p>Assessment of the project status/content/progress with respect to the vision outlined in the National Contribution Plan.</p>	2
# of mid-point workshop conducted	<p>In-person participation to the workshops, with support to METTELSAT in the assembly of the workshop agenda & format, and the definition of clear, explicit objectives (both for the workshop, and the project over the subsequent year).</p> <p>Support to the discussions, including for the identification of mitigation measures in case of project delays and/or non-conformities.</p> <p>Facilitation of smooth exchanges between the Implementing Entity and the Beneficiary Country.</p>	
	<p>Facilitation of smooth exchanges between SOFF partners and SOFF Secretariat, WMO regional center in Nairobi, including RICs, and GISCs.</p> <p>Assessment of the project status/content/progress with respect to the vision outlined in the National Contribution Plan.</p>	1

	Facilitation of smooth exchanges between the Implementing Entity and the Beneficiary Country.	
	Facilitation of smooth exchanges between SOFF partners and SOFF Secretariat, WMO regional center in Nairobi, including RICs, and GISCs. Assessment of the project status/content/progress with respect to the vision outlined in the National Contribution Plan.	2
# of site visits and discussions conducted with local airport authorities to formalize the interactions between METTELSAT and RVA at each site.	Support and advice to METTELSAT in the assembly of the messages (form and content) to be delivered, and in the identification of the key elements to be clarified for the SOFF project, at a human, technical, and real-estate level. Support and advice to METTELSAT for debriefing activities and their implementation of follow-up, necessary actions.	
# of quarterly meetings conducted for the SOFF Project Steering Committee involving key government stakeholders	Support and advice to METTELSAT in the assembly of the messages (form and content) to be delivered, and in the identification of the key elements to be clarified for the SOFF project, at a human, technical, and real-estate level. Remote participation to the meetings.	12
# of bi-monthly technical sessions to follow up on the work plan and report progress on indicators.	Remote participation to the meetings, with support to the discussions, including for the identification of mitigation measures in case of project delays and/or non-conformities. Facilitation of smooth exchanges between the Implementing Entity and the Beneficiary Country.	18
	Facilitation of smooth exchanges between SOFF partners and SOFF Secretariat, WMO regional center in Nairobi, including RICs, and GISCs.	

	# of regular field visits conducted for monitoring and technical controls	Support to METTELSAT in the planification and implementation of the visits, incl. the definition of clear, explicit objectives and deliverables. In-person participation to one or two visits to assess the situation/evolution on the ground (boundary condition: maximum of 2 in-country visits per year, including participation to the yearly workshop). Support to METTELSAT in the follow-up of the visits' findings, including in the identification and implementation of necessary corrective measures.	6
1.2 NMHS institutional capacity required to operate the GBON network developed	# of governance structures and operational frameworks developed for METTELSAT	Support to METTELSAT in the drafting, assembly and implementation of suitable governance structures and operational framework. Continuous assessment of the structures' efficiency/applicability, and identification of mitigation measures/improvements if warranted.	1
	# of calibration laboratory refurbished at METTELSAT headquarters	Support to METTELSAT to define a solid operational scheme for the calibration of digital barometers.	1
		Support to METTELSAT in the identification of technical requirements for the refurbishment, and subsequent initialization of operations.	
		Facilitation of smooth exchanges between METTELSAT and RIC Casablanca, and the relevant manufacturer(s).	
	# of data sharing protocols and operational guidelines established for WMO integration	Facilitation of smooth exchanges between METTELSAT, GISC Casablanca and CREWS towards the deployment of a WIS 2.0 Box, and subsequent ingestion of both automatic and manual observations.	1
		Support to METTELSAT towards the assembly of clear observations protocols and associated training material for observers.	
	# of METTELSAT business model developed to align	Advice to METTELSAT in the assembly of a suitable business model, applicable to the current situation and compatible with the future evolution of the network and institution in future SOFF Investment Cycles.	1

	with GBON network's sustainability objectives		
# of in-depth assessment of key sites performed with respect to their suitability for deployment of upper-air stations in subsequent Investment Cycles	Support and advice to METTELSAT regarding the selection of a subset of the most suitable sites for the possible deployment of an upper-air station in future Investment Cycles, incl. for the planning of necessary preliminary inspections and clarifications to be secured prior to the relevant Investment Request.	2	
# of staff recruited to form the project management unit	Technical advice to METTELSAT and WFP in terms of requirements (incl. lift gas, consumables, maintenance).	2	
# of sustainability plans developed to integrate METTELSAT into national and regional meteorological frameworks	<p>Provision of advice regarding the implementation of transparent, fair, gender-balanced recruitment strategies.</p> <p>Support in establishing a robust, positive, working relationship with WMO Regional Center in Nairobi for OSCAR/Surface support.</p> <p>Coordination with SOFF Secretariat and relevant Peer Advisors, with an active monitoring of any emerging regional frameworks.</p> <p>Support to METTELSAT to account and plan for the sustainability of their network.</p> <p>Exhaustive review of the relevant processes and instructions within METTELSAT, and guidance for the assembly of a set of sustainable & relevant teams/tasks.</p> <p>Independent verification and monitoring of the status of GBON stations on OSCAR/Surface, and support towards the implementation of mitigation measures in case of deficiencies.</p>	1	7

Support provided for the rehabilitation of the HQ AWS and the maintenance and repair of vehicles	Support in the assembly and review of relevant technical specifications for an AWS (to perform a technical trial at the METTELSAT headquarters), incl. international regulations and local requirements. Active contributions to the drafting of relevant tender documents, in the subsequent review of offers, and their ranking/final selection. Technical advice to METTELSAT and WFP regarding the infrastructure requirements (installation site, power, access, security).	yes	
# of 24/7 shifts of observers set up at key stations with assembly of hourly SYNOps	Support and advice to METTELSAT with regards to the implementation of necessary operational procedures at the local and national level, incl. the establishment of robust 24/7 shift work for observers, the establishment of transparent & fair compensation for effective & efficient night-time/weekend work, the monitoring of the emergence of any staff grievances and the exploration of possible mitigation measures. Technical advice to METTELSAT and WFP regarding the infrastructure requirements (office space, power, access), and active contribution to the optimization and adjustment of the plans to specific sites given the associated constraints.	8	
1.3 NMHS human capacity required to operate the GBON network developed	# of technical staff and observers trained on station operations, maintenance, calibration, WIGOS/WIS 2.0, data monitoring, and the use of the WIS 2.0 box for manual data upload. Review of the training effectiveness, and design of corrective measures together with METTELSAT, if warranted.	Support and advice towards the assembly of relevant training material, and its effective delivery (incl. form and format) by METTELSAT. Review of the relevant data submission interfaces, and exploration of possible means of improvement if warranted. Support towards the assembly of a detailed, realistic planning for training delivery, and subsequent progress monitoring. Review of the training effectiveness, and design of corrective measures together with METTELSAT, if warranted.	10

	# of WMO-compliant trainings provided on real-time data-sharing and analysis	Liaison between METTELSAT and relevant WMO training opportunities, incl. the translation of relevant documents to French if required. Advice to METTELSAT regarding the planning of the trainings (incl. the drafting of specific goals and topics/objectives). Remote participation to subsequent debriefing sessions (to extract and document specific lessons-learned and connect them to SOFF in the DRC).	3
	# of regional learning programs and study tours facilitated for technical personnel	Liaison between METTELSAT and relevant WMO training opportunities, incl. the translation of relevant documents to French if required. Advice to METTELSAT regarding the planning and nature of the tours (incl. the drafting of specific goals and topics/objectives). Remote participation to subsequent debriefing sessions (to extract and document specific lessons-learned and connect them to SOFF in the DRC).	2
	# of training programs implemented for leadership and operational staff	Liaison between METTELSAT and relevant WMO training opportunities, incl. the translation of relevant documents to French if required. Advice to METTELSAT regarding the planning of the training programs (incl. the drafting of specific goals and topics/objectives). Remote participation to subsequent debriefing sessions (to extract and document specific lessons-learned and connect them to SOFF in the DRC).	2
	Stable, robust compensation mechanism implemented for observers (night & weekend & national holidays, plus transfer to site via local transports).	Provision of dedicated advice to METTELSAT towards the implementation of a fair and transparent compensation mechanism, incl. the assembly of the relevant official documentation and associated procedures.	YES

	# of technical visits and trainings conducted on calibration of meteorological instruments	Advice to METTELSAT regarding the planning of the visits (incl. the drafting of specific goals, key discussion points and focus topics). Remote participation to subsequent debriefing sessions (to extract and document specific lessons-learned and connect them to SOFF in the DRC).	2
	# of METTELSAT delegation visits conducted to near-by SOFF-benefiting countries to assess challenges and innovative solutions for maintaining AWS networks and operating upper-air stations.	Support in the selection of the most relevant destination (incl. via discussions with relevant peer-advisors and WMO regional offices). Advice to METTELSAT regarding the planning of the visits (incl. the drafting of specific goals, key discussion points and focus topics). Remote participation to subsequent debriefing sessions (to extract and document specific lessons-learned and connect them to SOFF in the DRC).	1
	Percentage of female trained	Promotion of the importance of gender-balanced activities within METTELSAT Support to METTELSAT in the gender-balance assessment of its workshop activities Advice to METTELSAT on the design and implementation of gender-balance-supporting measures	20
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	N/A	

		8
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	<p>Active support in the assembly and review of relevant technical specifications for classical stations and for an AWS (to perform a technical trial at the METTELSAT headquarters), incl. international regulations and local requirements.</p> <p>Active contribution to the drafting of relevant tender documents, in the subsequent review of offers, and their ranking/final selection.</p> <p>Technical advice to METTELSAT and WFP regarding the infrastructure requirements (installation site, power, access, security), and active contribution to the optimization and adjustment of the plans to specific sites and associated constraints.</p> <p>Support to METTELSAT in the identification of suitable/appropriate data transfer and storage approach, incl. the liaison with relevant WMO entities (e.g. GISC Casablanca), with a focus of robust, manual GBON observations.</p> <p>Active support in the assembly of relevant/necessary operational processes (incl. maintenance, calibration) at METTELSAT and with partners.</p> <p>Advice towards validation tests and experiments to be conducted at the headquarter to establish uniform observation practices throughout the network.</p> <p>Remote participation to the test debriefing, to encourage critical and accurate reviews, and identify possible mitigation measures to any deficiency.</p>
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

2.4 Improved upper air 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	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	<p>Active monitoring of the newly established GBON sites during the commissioning period, alongside the ability of METTELSAT to proactively identify problems and remedy to them.</p> <p>Support to METTELSAT in case of deficiencies, to identify the causes and implement mitigation measures.</p> <p>Continuous, critical review of the proposed solution, and the associated ability of METTELSAT to reach a sustainable, cost-effective GBON compliance in view of its effective efficiency.</p> <p>Support in the assembly of a transparent, accurate set operational costs, and help in the drafting of the relevant SOFFF Compliance Funding Requests.</p>	8
3.2 GBON upper air 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	N/A	

Signatures

Peer advisor focal point	Name: Alexander Haefele Title: 07 May 2025 Date: MétécSuisse Station Aérologique Chemin de l'Aérologie Case postale 316 CH-1530 Payerne
Country focal point	Name: ITELA Y'ILONDO Joseph Title: Directeur Général / METTELSAT Date: 12 Mai 2025

