Systematic Observations Financing Facility

Investment Phase:
Annual Narrative Report

Ethiopia
Year 2

Systematic Observations
Financing Facility

Weather and climate data for resilience

General Information

Country	Ethiopia	
Implementing Entity	UNDP	
Agreement effectiveness date	06 June 2024	
Duration	36 months	
Anticipated end date	06 June 2027	
Reporting period	**From:** 01 January 2025	**To:** 31 December 2025
Approved amount	USD 9,956,802.60	
Disbursed amount	USD 6,457,817	
Signature of Implementing Entity	Mrs. Wubua Mekonnen, CRES Unit TL, UNDP [redacted]	

Summary

GBON institutional and human capacity strengthened. First, The Project formally commenced with broad-based National Consultations (NC) involving Civil Society Organizations and diverse stakeholders. The NC workshops were successfully conducted from February 8–14, 2025, across nine Regional Meteorological Service Centers (RMSCs), including Afar, Benishangul, East Amhara, East and Central Oromia (Adama), Tigray, Somali, Hawassa, South Oromia, and Gambella. These sessions brought together over 418 participants (321 men and 97 women), including regional government representatives, to raise awareness of the project's objectives, expected deliverables, and community benefits. They also provided a platform to address anticipated implementation challenges and initiate land acquisition for new meteorological stations. In addition, a four-day field mission and workshop were held from May 27–30, 2025, in Addis Ababa and Adama, bringing together SOFF investment phase partners in Ethiopia—EMI, UNDP, MET Norway, ETH-SOFF PMU, and the EMI SOFF technical task team—for their first in-person coordination meeting. The mission strengthened collaboration, reviewed operational progress beyond the Readiness phase, and verified implementation on the ground. It successfully achieved its objectives with 25 (17 M, 8 F) participants, including representatives from the Eastern and

Central Oromia Meteorological Service Centre. **Second,** a dedicated PMU, comprising a Project Manager, M&E Officer, and Finance Offices, has been established to oversee GBON–SOFF implementation. In parallel, EMI formed a ten-member Technical Task Team of engineers, meteorologists, technicians, and IT specialists to support station installation, data transmission, calibration, and IT systems required for GBON compliance. **Third,** EMI conducted three international experience-sharing missions. The first, led by the Director General, took place at EUMETSAT in Germany (9–13 December 2024) to discuss Africa–Europe meteorological collaboration, review initiatives such as MTG data and PUMA 2025, and observe control centre operations and PUMA stations. The second mission, undertaken by an EMI delegation to the China Meteorological Administration (21–31 December 2024), focused on learning best practices in AWS and upper-air networks, modern calibration facilities, and forecasting and early warning systems. The third mission, held in Turkey (13–19 January 2026), supported experience sharing and SOP development on IT infrastructure for effective GBON and SOFF implementation. EMI experts strengthened their knowledge of AWS and upper-air operations, IT and calibration SOPs, and forecasting services, while drawing lessons from the Turkish State Meteorological Service's long-standing role as a WMO Regional Training Centre to inform EMI's emerging RTC. **Fourth,** EMI provided capacity-building trainings on cellular and satellite communications, router configuration, and weather station installation and maintenance. The sessions, held in Adama from 23–30 June 2025, engaged over 216 (113 M, 103 F) participants from EMI and 11 RMSCs, strengthening skills in installation, calibration, troubleshooting, metadata collection, and OSCAR updates, with 64% showing measurable improvement. EMI also joined regional WIGOS Workshop in Addis Ababa (8-11 December 2025), enhancing knowledge of the WIGOS framework, RWC roles, and Quality Management Systems. This workshop brought together experts from across Africa to strengthen understanding of the WIGOS framework, clarify the roles of Regional WIGOS Centres (RWCs), and enhance the application of Quality Management Systems (QMS).

GBON infrastructure in place. First, EMI, through UNDP, procured Automated Weather Stations for 13 new sites and 16 upgrade, with delivery scheduled for the first quarter of 2026. Significant progress has been made on civil works, with 85% completion of both the construction of 100m × 100m perimeter wall fences and 20m × 20m internal fencing for ten new stations, undertaken through external contractors. In parallel, EMI conducted an eight-day training program for 44 (27 M, 17 F) staff members to strengthen skills in planning, resource mobilization, monitoring, evaluation, and reporting, with participants noting improved practical capacity and strong relevance of the sessions. **Second,** Civil works for new upper-air stations in Gambella, Bale Robe, and Jigjiga have been completed, including hydrogen generator and balloon filling facilities, water tankers, and electrical installations, with final handover planned for January 2026. Rehabilitation works at the Mekelle and Addis Ababa sites were also finalized by December 2025. In parallel, the EMI technical team conducted multiple rounds of supervision, inspection, quality assurance, and monitoring and evaluation to ensure compliance and readiness for operational use.

Progress of implementation

Output	Indicator	Target			Actual			Status	Milestones achieved	Challenges and risks
		Y1	Y2	Y3	Y1	Y2	Y3			
1. GBON institutional and human capacity developed										
1.1 **National consultations**, including with CSOs and other relevant stakeholders conducted • Inception workshops at the national and sub-national level • Stakeholder engagement workshops on implementation • Consultative workshop at 11-RMSC's on station security with key stakeholders	# of inception workshops held	1			1			Achieved	Inception workshop successfully organized on November 6-7, 2024	
	# of stakeholder workshops held	1			1			Achieved	Workshops organized on May 27–30, 2025, convened SOFF partners (EMI, UNDP, MET Norway, ETH-SOFF PMU, and the EMI SOFF technical task team)	
	# of sub national workshops	1	1	1	1			Achieved	Stakeholder Workshop successfully organized on February 8-14,2025 across nine RMSC	
1.2 **NMHS institutional capacity** required to operate the GBON network developed • Establish a full staff PMU and a project execution team, including project management and stakeholder management skills to support the execution of the project. • Promote gender equality by establishing thresholds for female participation in SOFF related activity 50 % of all participants in SOFF-related and supported trainings; SOFF consultations, planning workshops; staff for operating and maintaining GBON stations; and decision-making and project management positions where applicable will be women.	# of project staff	5			6	3		Achieved	In Year Two the project has been supported by Project Management Unit comprising three staff members—Project Manager, Finance Officer, and Monitoring & Evaluation (M&E) Officer—who have all been employed and fully on boarded since April 2025.	
	% female participants in the workshops		25%			23%		On track	A total of 418 participants (321 men and 97 women) attended the inception workshop, stakeholder consultation workshops, and sub-national workshops, representing approximately 23% participation.	
1.3 **NMHS human capacity** required to operate the GBON network developed • Experience sharing and capacity building on GBON/SOFF key components for EMI leadership	# of experience sharing	1	1		1	2		Achieved	Three Experience sharing visits conducted at Germany, China and Turkey	
	# of employed staff	3	5			3		On track	In Year Two the project has been supported by Project Management Unit comprising three staff members—Project Manager, Finance Officer, and Monitoring &	

Output	Indicator	Target			Actual			Status	Milestones achieved	Challenges and risks
		Y1	Y2	Y3	Y1	Y2	Y3			
• Experience sharing and SOP development on IT infrastructure for effective GBON and SOFF implantation									Evaluation (M&E) Officer—who have all been employed and fully onboarded since April 2025.	
• Recruitment of observers, ICT and project management staff • Training in cellular and satellite communications and router configuration • Training in weather station maintenance • Participation in the regional trainings	# of trainees	5	5			260 (140M, 120F)		On track	Through three capacity-building training sessions we have trained a total of 260 participants—140 male and 120 female—who successfully attended the sessions.	
2. GBON infrastructure in place										
2.1 **New land-based stations** and related equipment, ICT systems, data management systems and standard operating practices in place	# of new stations installed as per the GBON National Contribution Plan		7	6				On-track	The procurement of Automated Weather Stations for 13 new sites has been completed, with delivery scheduled for the first quarter of 2026.	
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		8	8				On-track	The procurement of Automated Weather Stations for 16 upgrade sites has been completed, with delivery scheduled for the first quarter of 2026.	
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		2	1				On-track	The draft specifications for new upper-air stations is under technical review and clearance.	
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		1	1				On-track	The draft specifications for new upper-air stations is under technical review and clearance.	
3. Sustained compliance with GBON										
3.1 **GBON land-based stations' commissioning period completed**, country-specific standard cost for operations and maintenance established,	# of stations commissioned as per the GBON National Contribution Plan		17	12				On-track	Three field vehicles have been procured to support mobile calibration operations. In parallel, progress has been made in establishing a sustainable national	

Output	Indicator	Target			Actual			Status	Milestones achieved	Challenges and risks
		Y1	Y2	Y3	Y1	Y2	Y3			
and data sharing verified by WMO Technical Authority									calibration capacity through technical collaboration with MET Norway.	
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		2	3				On track		

Gender

In alignment with the UNDP Gender Equality Strategy, gender considerations have been integrated into the SOFF Investment Phase in Ethiopia to promote inclusive and equitable outcomes. Two key outputs within the results framework reflect this commitment:

- **Output 3.1:** Integrated and gender-responsive climate and disaster risk governance systems strengthened to reduce risks and vulnerabilities, improve early warning systems (EWS), and enable rapid recovery.
- **Output 3.4:** Action on climate change adaptation and mitigation scaled-up, funded, and implemented across sectors.

Both outputs are tagged with a GEN2 gender marker, signifying that gender equality is a significant objective of the activities.

To operationalize the Gender Policy, SOFF has adopted concrete measures to promote women's participation and leadership. Specifically, a threshold of 50% female participation has been set across all SOFF-related and supported trainings, consultations, planning workshops, and staffing for the operation and maintenance of GBON stations. This also extends to decision-making and project management roles where applicable. These efforts ensure that women not only benefit from improved climate and weather services, but are also meaningfully engaged in shaping, implementing, and sustaining these systems.

UNDP as Implementing Entity, will continuously monitor and report of sex disaggregated data will further guide gender-responsive implementation.

Social and environmental safeguards

The execution of SOFF activities in Ethiopia is guided by UNDP's revised Social and Environmental Standards (SES), which came into effect on 1 January 2021. These standards ensure that social and environmental sustainability is systematically mainstreamed across all phases of the project cycle.

In line with SES requirements and national legal frameworks, a Social and Environmental Screening Procedure (SESP) undertaken as part of project preparation. This process identified potential environmental and social risks and corresponding mitigation measures, which have been incorporated into the project's design and reflected in the UNDP risk register. Project risks are monitored and updated quarterly through UNDP's corporate system (Quantum), with oversight by the Programme Specialist and the Programme Management Support Unit (PMSU).

Practical measures will be embedded in the technical design and operational modalities of the project in the upcoming activity implementation to ensure

environmentally responsible implementation following the requirement of SOFF Investment Phase Funding Request document. These include:

- *Sustainable procurement practices, such as selecting vendors with environmental certifications and ensuring the equipment procured is durable and sustainable over its life cycle*
- *Use of renewable energy, notably the deployment of solar panels to power observation networks*
- *Emissions reduction strategies, including minimizing field visits, using hybrid vehicles where feasible, and enhancing remote diagnostics to reduce the need for travel*
- *Preventive maintenance plans to extend equipment lifespan and reduce environmental impact from frequent replacements*
- *Local capacity building, such as training EMI staff and remote station personnel for basic maintenance, reducing reliance on external contractors and unnecessary travel*
- *Innovative environmental solutions, such as EMI's exploration of hydrogen gas production for upper-air observations—a cleaner and potentially regionally scalable solution.*

Civil society and private sector participation

Currently there are no private sector operators providing meteorological observations or data services in Ethiopia, thought there are some who operate stations for their own use. According to the SOFF operational manual definition of the basic business models, Ethiopian GBON infrastructure is "Fully public: Fully State/NMHS owned and operated GBON infrastructure". Therefore, the whole implementation of SOFF in Ethiopia is directly owned by EMI, except that key stakeholders, such as local administrators and local NFCS key partners shall have a significant role in securing the AWS installation site as well as ensuring stations security as well as beneficiary of the climate service. Thus, they will be engaged in the whole process of SOFF implementation, among others, via workshops, public sensitization processes.

Private sector involvement in SOFF implementation in Ethiopia would mainly be by participating in the open competitive procurement process to carry some of the civil works. In addition, civil society participation will be explored during implementation in the awareness creation to the general public on the important of climate services in climate change adaptation, so that the public in general give protection to the safety and security of the land based GBON stations, as well as make the best use of climate services for the best of their livelihood.

Complementary financing and leverage

As complementary financing and leverage, UNDP is supporting Ethiopia in coordinating the multi-stakeholder effort that led to the successful approval of the 'Advancing Early Warnings for All (EW4ALL)' project by the Green Climate Fund (GCF), securing USD 13 million over five years period, starting in 2025. This project positions Ethiopia at the forefront of global efforts to ensure that every person is protected by early warning systems, and will significantly enhance national capacities across all four pillars of Early Warning Systems, namely: i) Disaster Risk Knowledge; ii) Detection, observations, monitoring, analysis and forecasting of hazards; iii) Warning Communication and Dissemination, and iv) Preparedness to respond.

Implementation of grievance redress mechanism

As of the current reporting period, no formal issues or complaints have been received in relation to the implementation of SOFF operations in Ethiopia.

UNDP CO has established project-level grievance redress mechanism and stakeholder response mechanism, esp. for those categorized on high risk and substantial risk level to respond for and social and environmental complaints in the programmes and projects implementation. UNDP will incorporate this mechanism to manage complaints and resolve conflicts in the SOFF operations.

During the reporting period, stakeholder engagement has been carried out in a participatory manner through stakeholders' workshops at national and regional levels, and regular coordination with the implementing partners, particularly the Ethiopian Meteorological Institute (EMI), Norway Meteorological Institute (MET Norway) and RMSCs, and other key stakeholders has helped ensure alignment and address any emerging concerns promptly.

UNDP remains committed to the successful establishment of the above-mentioned mechanism, and monitoring implementation closely and maintaining open channels of communication with all stakeholders to ensure timely identification and resolution of any issues that may arise.

Success stories

Experience sharing Visit at TMSC- Building Stronger Early Warning Systems | United Nations Development Programme
Experience sharing Visit at CMSC- https://www.linkedin.com/pulse/reliable-data-saves-lives-undp-ethiopia-rjjbf?utm_source=share&utm_medium=guest_mobile_web&utm_campaign=copy
SOFF Secretariat Deputy Director Visit to Ethiopia- https://www.linkedin.com/posts/undp-ethiopia-45aab41b8_ethiopia-

globalbasicobservationnetwork-gbon-activity-7432460984599896065-cY7_?utm_source=share&utm_medium=member_desktop&rcm=ACoAADK1UIYBPWRnU6UJs2y18QkTqYy-d3Z4f1A