SOFF Investment funding request

South Sudan (Version 2)

Systematic Observations
Financing Facility

Weather and climate data for resilience

UN Multi-Partner Trust Fund Office

General Information

Fund	MPTF_00281: The Systematic Observations Financing Facility					
FMP Record	MPTF_00281_00051: SOFF South Sudan Investment Phase					
MPTFO Project Id						
Start Date						
End Date						
Applicants	**Status**	**Contact Type**	**Name**	**e-mail**	**Position**	**Telephone**
	Active: 02-Dec-2025 1:44:00 PM	Project Manager	Talukder Badrul	badrul.talukder@fao.org		
Signatories	**Signature Process**	**Role**	**Name of Organization**	**Name**	**User Email**	
	Digital	Signatory	FAO: FAO (Food and Agriculture Organization)	Dr Meshack Malo	meshack.malo@fao.org	
	Digital	Signatory	WMO: WMO (World Meteorological Organization)	Celeste Saulo	csaulo@wmo.int	
Contacts	**Contact Type**	**Name**	**e-mail**	**Position**	**Additional e-mail**	**Telephone**
	Focal Point	Felix Dzvurumi	felix.dzvurumi@fao.org	Deputy FAO Representative in South Sudan	badrul.talukder@fao.org	0922001735
Description	The SOFF initiative, in cooperation with the Food and Agriculture Organization of the United Nations (FAO) and GeoSphere Austria, is supporting the South Sudan Meteorological Service (SSMS) in establishing a GBON-compliant observational network. South Sudan, the world's youngest country since 2011, faces weak infrastructure, frequent power outages, poor internet coverage, and limited human and financial resources – all of which hinder the operation of the national meteorological service. Based on the WMO Global GBON Gap Analysis and the revised National Contribution Plan (NCP), the project supports and operates 16 Automatic Weather Stations (AWS) and 5 manual stations at major airports, plus an additional manual station at the University of Juba dedicated to training. The AWS installations will be financed through the BREFONS project, while SOFF investments will specifically target the operation of the AWSs after BREFONS is over, manual stations, maintenance of the full network, office internet facility, staff training, and training observers, IT specialists, and technicians. The objectives are to close existing data gaps, ensure reliable operations through a four-year maintenance and calibration plan, establish a legal framework for SSMS, and enable the long-term, independent, and sustainable provision of high-quality meteorological data to support both national and global weather forecasting models.					
Universal Markers	**Gender Equality Marker**	**Risk**				
	• GEM1 - The Key Activity contributes to GEWE in a limited way	• Low Risk				
Optional Markers	**WB Income Category**	• Low Income				
	UN LDC	• Yes				
	Small Island Developing States (SIDS)	• No				
Fund Specific Markers	**SOFF Phases**	**SOFF Phases** • Investment Phase				
	EW4All	**Early Warnings for All initial focus countries** • Yes				
	Fragile and conflict-affected situation	**Fragile and conflict-affected situation** • Yes				
	Peer advisor	**Peer advisor** • GeoSphere [Austria]				
Geographical Scope	**Geographical Scope**	**Name of the Region**	**Region(s)**	**Country**		
	• Country	• NA	• Africa	• South Sudan		

<table>
<tr><td>Participating Organizations and their Implementing Partners</td><td>UN Participating Organizations</td><td colspan="2">Government/ Multilateral/ NGO/ Other</td><td>New Entities</td><td>Implementing Partners</td></tr>
<tr><td></td><td>• FAO - FAO (Food and Agriculture Organization)
• WMO - WMO (World Meteorological Organization)</td><td colspan="2"></td><td></td><td></td></tr>
<tr><td rowspan="11">Programme and Project Cost</td><td>Participating Organization</td><td>Amount (in USD)</td><td colspan="3">Comments</td></tr>
<tr><td colspan="5">Budget Requested</td></tr>
<tr><td>FAO</td><td>$1,851,750.00</td><td colspan="3">Includes the 7% IE fee</td></tr>
<tr><td>WMO</td><td>$227,848.80</td><td colspan="3">Includes the 7% WMO fee</td></tr>
<tr><td>Total Budget Requested</td><td>$2,079,598.80</td><td colspan="3"></td></tr>
<tr><td colspan="5">Tranches</td></tr>
<tr><td colspan="2">Tranche 1</td><td colspan="2">Tranche 2</td><td colspan="2">Tranche 3</td></tr>
<tr><td colspan="2">FAO (65%) $1,203,637.50
WMO (33.33%) $75,942.01
Total: $1,279,579.51</td><td colspan="2">FAO (35%) $648,112.50
WMO (33.33%) $75,942.01
Total: $724,054.51</td><td colspan="2">FAO (0%) $0.00
WMO (33.34%) $75,964.79
Total: $75,964.79</td></tr>
<tr><td colspan="5">Other Sources (Parallel Funding)</td></tr>
<tr><td>Total</td><td>$2,079,598.80</td><td colspan="3"></td></tr>
<tr><td>Thematic Keywords</td><td colspan="5"></td></tr>
<tr><td rowspan="3">Programme Duration</td><td>Anticipated Start Date</td><td colspan="4">01-Jan-2026</td></tr>
<tr><td>Duration (In months)</td><td colspan="4">48</td></tr>
<tr><td>Anticipated End Date</td><td colspan="4">01-Jan-2030</td></tr>
</table>

Narratives

Title	Text

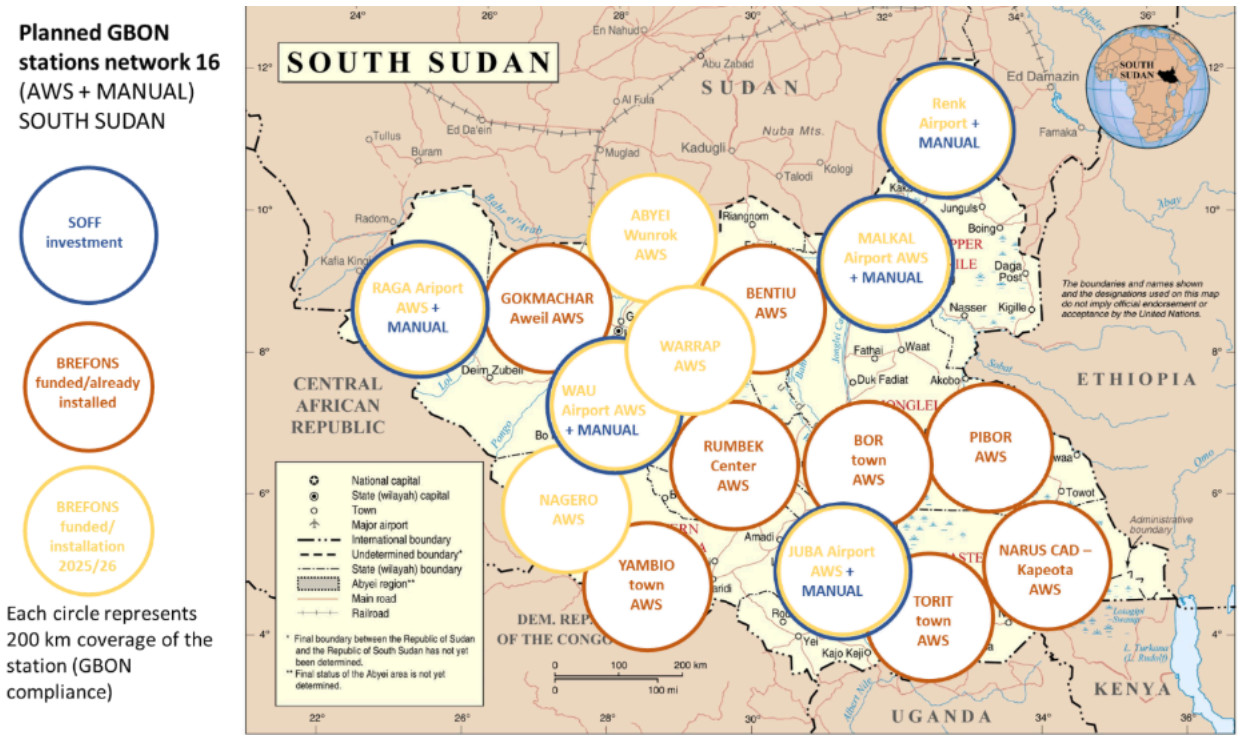
Close the most significant data gaps

Based on the WMO Global GBON Gap Analysis conducted in June 2023, South Sudan suffers from a significant limitation in the observational network. Strengthening of s model outputs.

Closing the most significant data gaps will involve installation and operationalization of surface stations, both automatic and manual (the rationale is described in the Na be functional. This will give South Sudan 16 locations as per GBON requirements. The GBON National Contribution Plan (NCP) for South Sudan was approved by the WM

In the 5 'hybrid' stations equipped with both manual instruments and AWS, data will be sourced primarily from the AWS; however, if the AWS is unable to provide data fo University of Juba. This approach ensures a long-term perspective to train future SSMS staff in its own country and therefore build the staff capacity required to sustain G of the South Sudan Meteorological Service, addressing the current lack of local capacity in meteorology. The station will allow students to observe, record, and process m collaboration between the university and the national weather service. In the long term, the station will contribute to sustainable capacity building, reduce reliance on ext and climate resilience.

Table 1.1 : Stations to be upgraded and newly installed in the Investment Stage.



Map: Map of selected stations for the GBON network in South Sudan (target of 16 stations for full compliance)

Table 1.2 indicates the locations of the stations. All selected AWS stations (funded via BREFONS) will be maintained and operated by the SSMS (supported by SOFF) but

	Station	SOFF station planned NCP (october 2023) 16 stations	Planned funding NCP 2023
1	Juba Airport	planned station no 1 (phase 1 manual and automatic)	SOFF
2	Malakal Airport	planned station no 3 (phase 1 manual phase 2 automatic)	SOFF
3	Wau Airport	planned station no 4 (phase 1 manual phase 2 automatic)	SOFF
4	Renk	planned station no 5 (phase 1 manual phase 2 automatic)	SOFF
5	Raga	planned station no 14 (automatic phase 3 planned for SOFF)	SOFF
6	Gokmachar (Aweil)	planned station no 6 Aweil - Gok Machar (automatic - phase 3 for Brefons project)	BREFONS
7	Rumbek center	planned station no 7 Rumbek (phase 3 automatic)	SOFF
8	Yambio town (Bakindo) - State Ministry of Agriculture and Forestry Headquater	planned station no 8 Yambio (phase 3 automatic)	SOFF
9	Torit town (Gumbo) State Ministry of Agriculture and Forestry Headquater	planned station no 9 Torit (phase 3 automatic)	SOFF
10	Bor town SMAF-tibek	planned station no 10 Bor - FAO Campus (automatic phase 3)	BREFONS
11	Bentiu	planned station no 11 (automatic phase 3 planned for Brefons project)	BREFONS
12	Abyei -	planned station no 12 (automatic phase 3 planned for Brefons project)	BREFONS
13	Pibor Post Administrative Post	planned station no 13 (automatic phase 3 planned for SOFF)	SOFF
14	Narus cad - Kapoeta	planned station no 15 Narus - Kapoeta (automatic phase 3)	BREFONS
15	Nagero	planned station no 16 (automatic phase 3)	SOFF
16	Kuajok	(Originally not planned)	

* Manual stations are co-located with AWS (more details provided in the NCP + the amendment).

Currently, South Sudan has 13 operational AWS due to the above-mentioned BREFONS projects (and 27 more are to come through various FAO projects) – SOFF investm Quality Monitoring System (WDQMS) Webtool Screenshot below.

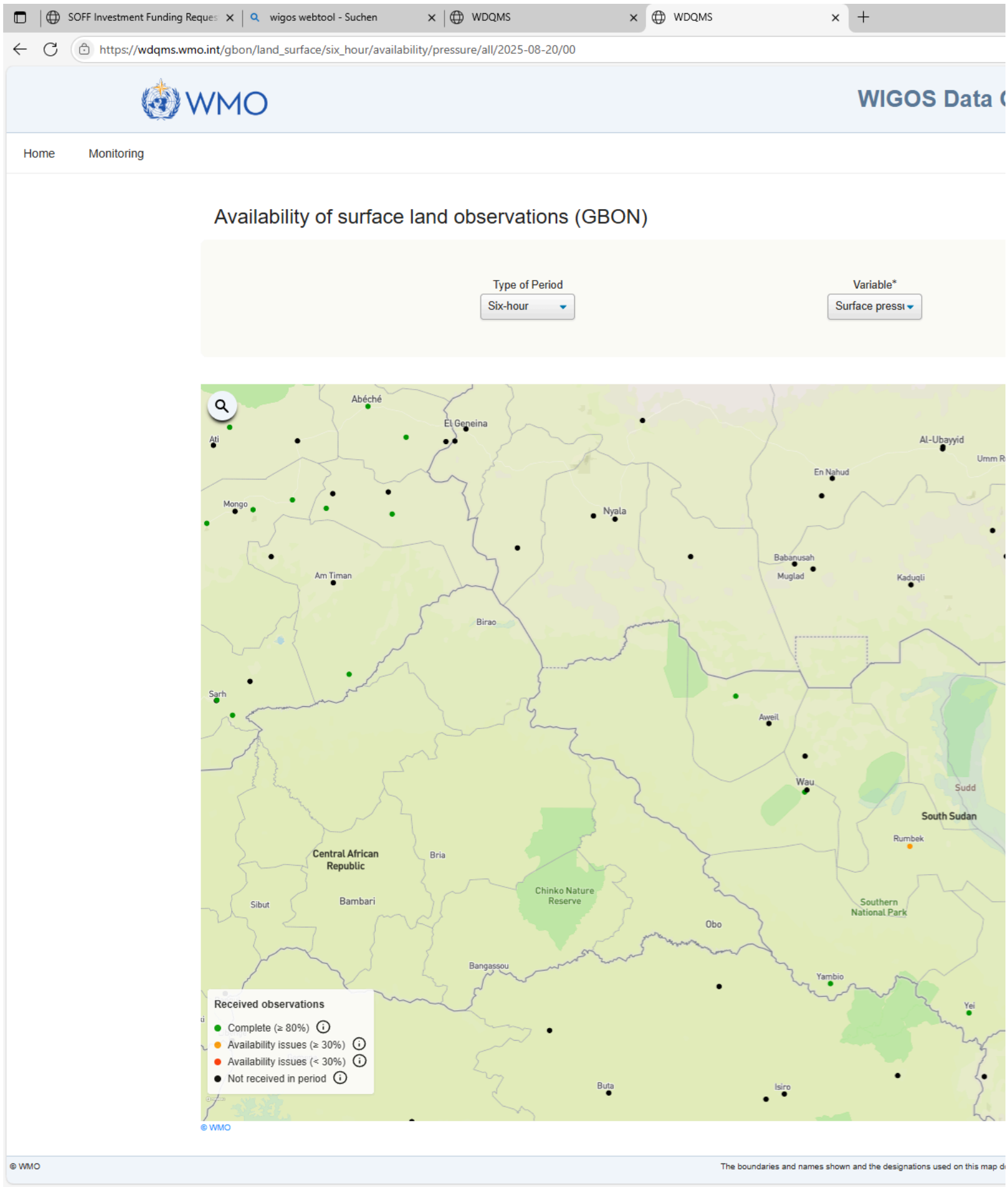


Figure 1.3 above: Display of the availability of surface land observations from the GBON module of the WDQMS for 20 August 2025.

The observational network clearly requires both conventional manual and automatic weather stations. SSMS has no upper-air stations or weather radars. Since the last N

SSMS has been developing its AWS network through several climate finance and development projects in recent years, most notably the AFDB-funded Africa Disaster Ris already been installed. As a result, AWS procurement and installation are not a priority for SOFF; instead, the focus is on strengthening SSMS capacity to operate, maintai regular access to remote stations. SOFF will support SSMS in sustaining 16 selected GBON stations and in adding 5 co-located manual stations as backups to existing AW

The gap of 5 to improve (AWS) and 11 new surface stations (AWS) was filled by investments via BREFONS. SOFF will now focus on sustaining this critical station network a 16 GBON Surface Stations operating and transmitting stations will be functional by the end of the SOFF project.

Table 2: GBON National Contribution Target based on WMO GBON gap analysis.

Type of station	Baseline (Results of the GBON National Gap Analysis)				GBON National Contribution Target (2023)		GBON National Contribution Target NEW	
	Target (# of stations)[1]	GBON-compliant stations (#)	Gap		To improve	New	To improve	New
			New	To improve				
Surface	16	0	11	5	5	11	16	0
Upper-air	3	0		3	0	3	0	3
Marine	*when applicable							

All AWS and manual stations must be paired with staff training in data management, technical and IT skills to ensure sustainable operation, maintenance, and effective us long-term in-house training and capacity development.

	The Baseline Study and NGA recommend three upper-air stations for GBON compliance; however, due to current capacity and resource constraints outlined in the NCP, t All AWSs under BREFONS (existing and planned) are equipped with WIS2-in-a-Box and already share data via WIS2 through collaboration with CREWS, with SOFF further communication via EUMETSAT used as backup while manual station data are uploaded through OSCAR with appropriate flagging when required.
Target easy fixes	Any development of an enhanced network towards GBON compliance in South Sudan will bring many benefits to the observational capacity of the country. However, sus The first targeted quick wins are to ensure the sustained operation of the already existing infrastructure that builds a minimum capacity for the country (BREFONS). This r secured locations. These 5 manual stations will form one unit with the corresponding AWS at those selected sites – only one WIGOS ID will be used for the system. AWSs cannot supply. The work will be supported by cooperation with CREWS East Africa, which has already provided WIS2.0 in a box implementation as well as some related training actions c
Create leverage	Concrete leveraging aspects have already been identified and agreed: In relation to the project "Program to build resilience for food and nutrition security in the Horn of • ALL 16 AWS stations included in the National Contribution Plan (+ the amendment) target will be covered by the stations expected in this project (BREFONS). The c ensure long-term operations and maintenance of these stations (which cannot be covered by the project) are included in this funding request. • SOFF and BREFONS will be coordinating to optimize purchase options for manual stations, operations and maintenance and purchasing of spare parts. • The vehicles purchased through the project can be used to maintain and access SOFF stations (hence, costs for vehicles are not budgeted for in this funding reques • The data management system is expected to be covered by the project at the time of writing this proposal. However, discussions on this are ongoing. Climsoft was • Training will be coordinated and exploited jointly for better effectiveness. SOFF-organised trainings will also be open to stakeholders under the project. The Bank ap The Climate Risk and Early Warning Systems (CREWS) East Africa (EA) project is targeting all the members of the East Africa Community (EAC) except the Democratic Rep forecasting and early warning capacity, including the assessment and strengthening of the hydrometeorological network. CREWS activities are complementary to SOFF o continue to support the operation of WIS 2.0 until the end of the project phase (starting with the end of the project fund by CREWS by 2027. Advocacy activities will raise awareness of the vital role of weather and climate information in supporting sustainable development, disaster risk reduction, and communit meteorological data into policy and decision-making. Water at the Heart of Climate Actions (WHCA) initiative is a crucial program within which SOFF plays a key role to achieve its objectives. In South Sudan, there are several Ministry of Water Resources and Irrigation MWRI. SOFF activities will be closely coordinated, and the country team of WHCA will be involved via the planned Project Stee See all related projects displayed in a table in the annexe.
Maximize delivery capacity	Geosphere Austria, formerly known as the Austrian Meteorological and Geodynamics service, has performed the Hydromet Diagnosis in Kazakhstan, North Macedonia, A countries in Africa. FAO has been supporting SSMS on climate and weather information systems by installing 13 AWSs throughout the country since 2009. Based on this p effectively in South Sudan. FAO has a country office in South Sudan, implementing several programmes and project on food security, livestock, fisheries and the climate i missions during the readiness and implementation stages. The technical expertise of FAO in meteorology is critically important for its role as an implementing entity of S FAO's deep operational presence in the country, combined with its practical understanding of local contexts, enables it to bridge these gaps by providing strong technica realities, strengthens national ownership, and ultimately enhances the sustainability and impact of SOFF interventions. In addition, the close cooperation with CREWS in South Sudan, facilitates any action towards improving delivery capacity for GBON compliance.
Sub-regional gains	Subregional benefits will be achieved through the activities outlined in the "Create Leverage" section (see that section for details). Procedures will be developed to access existing GTS data from neighboring countries—particularly upper-air soundings from Ethiopia, Kenya, and Uganda. At the same t South Sudan is currently served by the Regional WIGOS Center (RWC) for East Africa (Kenya and Tanzania), from which SSMS will benefit through maintained observation With support from the Peer Advisor, the WMO Regional Office for Africa, the Regional Training Center in Kenya, SSMS, and the University of Juba will jointly develop a tra Exchange activities with the Regional Instrument Center (RIC) in Nairobi are also planned to strengthen staff skills and support calibration activities across the country. Th students and SSMS technicians on maintenance, calibration, and quality control. The Regional Telecommunication Hub (RTH) and Global Information System Centre (GISC) will be essential partners for SSMS by enabling data exchange through the WM implementation of the WIS 2.0 node under CREWS, along with the successful installation of ADL software. Through a coordination with the regional office, SOFF will take CREWS will procure and install the WIS 2.0 node and support related training, with assistance from the WMO Regional Office and NORCAP. SOFF will cover the operation Finally, as a member of IGAD and its Climate Prediction and Applications Centre (ICPAC), South Sudan will benefit from strengthened linkages with ICPAC, particularly in a
SOFF Beneficiary Country Capacity Assessment	Presently, the SSMS operates as a directorate under the Civil Aviation Authority of South Sudan (SSCAA) in the Ministry of Transport (MoT) and primarily focuses on prov actions aiming at gearing the development of a legal framework and surrounding policy will take place. SSMS also lacks the resources to deliver the required meteorolog observational and services capacity. Despite recent infrastructure improvements—particularly on the station network side, such as through the BREFONS Project which expanded the number of surface static data internationally through WIS 2 (CREWS), SSMS is not yet in a position to effectively use this data for national purposes. Furthermore, it is critical to ensure that WIS 2 building on the existing infrastructure and the first improvements in data systems, SOFF can help transform SSMS into a more resilient and self-sustaining national servic Considering these national conditions, support from other organizations working in South Sudan in the implementation of this project would significantly improve the de the SSMS has requested the involvement of FAO to support the implementation of the project. We envisaged that in the course of implementing this project, the SMSS w The Annexes with the NGA and CHD provide additional details of the capacity gaps and needs of the country. It is to be noted that the NCP envisages the expansion of institutional and human capacity to ensure the success of the implementation of SOFF support. An amendment

Investment Phase Alignment with the GBON National Contribution Plan	The SOFF Investment Funding Request which includes the GBON National Contribution Plan (NCP) for South Sudan was approved by the SOFF Steering Committee in M activities listed in the NCP (+ the amendment 2025 – see annex) to this 4-years funding request. SSMS will need additional capacity building after the SOFF investment Regarding the selected station network, the number of AWS stations as GBON target has not changed: 16 surface stations are needed for South Sudan to reach GBON University and one at Juba Airport. For the current approach we recommend to focus on the airport only (AWS) and advice to put a manual station for training purpose A key update is that the required SOFF funding will not be increased, as fewer (even none) Automatic Weather Stations (AWSs) purchasing and installing need to be fin principles of capitalizing on existing infrastructure. Some of these stations are already transmitting data internationally via the WIS 2-in-a-Box system, supported by the SOFF, we can ensure full alignment between both project activities in South Sudan. We expect that all 16 selected locations for the GBON network can be covered throu stations will require repair/rehabilitation work quite soon. Instead of investing only in an AWS network, it is highly recommended that South Sudan stick to the 5 additional manual stations as back – up for its AWS network. In manual station will provide the necessary information. The project will cover all the activities mentioned in the NCP and the review note (see annex).

Execution modand implementation arrangements	**Project Organization and Institutional Analysis**
	
	Implementing Entity: The Food and Agriculture Organization of the United Nations (FAO) is the SOFF Implementing Entity. FAO South Sudan has experience in impleme advisories services to the community through radio based weather update and flood related messages around its thematic areas in collaboration with SSMS, Ministry of A with the World Meteorological Organization (WMO) under a 10-year agreement (2024–2033) to strengthen cooperation in agro-meteorology, disaster risk reduction, and the UN Early Warnings for All (EW4ALL) initiative, aiming to establish universal multi-hazard early warning systems by 2027. FAO focuses on risk knowledge and prepared
	
	FAO will build on its experience in delivering projects in South Sudan to oversee appropriate implementation of the SOFF support in line with its corporate procedures a
	
	FAO will oversee the overall coordination, management, and implementation of project activities under the respective components through its country office staff and by fulfill their role within the Meteorological Services by providing observers and other technical team members.
	
	The Letter of Agreement (LoA) between FAO and the South Sudan Meteorological Service (SSMS) aims to ensure effective coordination, management, and delivery of pro leadership, project management, finance and administration, IT support, and observer participation to enhance transparency and coordination.
	
	The LoA also provides limited but essential operational support to facilitate regular field movements, supervision, monitoring, and stakeholder engagement at national a
	
	Additionally, the agreement covers travel and accommodation for SSMS staff to participate in coordination meetings, field missions, and technical engagements critical t implementation, strong oversight, and strengthened institutional capacity under the project. SOFF technical and fiduciary teams shall conduct supervisory missions at lea fiduciary requirements including prohibited practices, environmental & social aspects, and monitoring & evaluation.
	
	The project will establish a Project Steering Committee (PSC) at the national level to support overall policy guidance, review of project progress and work plans, and coor support in addressing issues that may affect the smooth implementation of activities. FAO will retain overall responsibility for effective coordination, implementation, and observers from the most important climate related projects like WHCA, CREWS, etc. It will be ensured that CBOs and gender objectives will be included in the formation o
	
	To create synergies, SOFF activities will be undertaken in close coordination with other FAO-implemented project in South Sudan on building resilience for food and nutr
	
	The Peer Advisor for this project is GeoSphere Austria, the Austrian Institute for Geology, Geophysics, Climatology, and Meteorology. As an internationally recognized ins the AfDB, FAO, and SOFF Secretariat, offering regular feedback on progress and ensuring activities are implemented according to international standards.
	
	Key responsibilities include:
	
	• **Technical Advisory & Support**
	  ○ Guide the implementation and review of the National Contribution Plan and Investment Phase activities.
	  ○ Provide technical input and review of tender processes for AWS and manual stations, as well as IT, communications, and management systems.
	  ○ Support the establishment of a calibration plan for the SSMS to ensure accuracy and reliability of data.
	  ○ Assist in developing Standard Operating Procedures (SOPs), including quality control and assurance mechanisms.
	• **Capacity Building & Training**
	  ○ Strengthen the skills and capacity of SSMS management and staff through tailored training programs.
	  ○ Prepare a training manual and help organize structured training sessions.
	  ○ Facilitate an exchange visit to Vienna for up to three SSMS representatives to gain hands-on exposure to GeoSphere Austria's operations.
	  ○ Coordinate and support a joint training program with the University of Juba and ICPAC (Nairobi), including access to designated training and calibration cente
	• **Policy, Strategy & Partnerships**
	  ○ Assist in the development of a national policy or strategy for data sharing, public data services, and public–private engagement.
	  ○ Provide high-level advice on policy development, legislation, and advocacy, strengthening the institutional framework for sustainable meteorological services
	  ○ Promote regional capitalisation by sharing experiences and best practices with neighboring countries.
	  ○ Encourage and support the formation of public–private partnerships (PPPs) to enhance sustainability and innovation.
	• **Coordination, Synergies & Reporting**
	• Facilitate stakeholder engagement and promote synergies with complementary national and regional initiatives.
	• Provide recommendations and guidance on reporting, ensuring transparency and alignment with SOFF requirements.
	
	Through these roles, GeoSphere Austria will act as a trusted partner, ensuring the project delivers high-quality results while strengthening national capacities, fostering re
	
	FAO will support SSMS and will procure the equipment, install or rehabilitate existing stations according to the technical specifications for GBON, and develop the activiti

Private sector involvement	It is key to understand the potential role of the private sector for future sustainability therefore, private sector partners will be invited to join stakeholder engagement wo meteorological offices can be invited to share their experience and success stories during high-level dialogues, fostering knowledge exchange and best practices. Such co All selected AWS stations have been installed by a Kenyan company with a branch in Juba. This company was trained by the station's manufacturer in Italy. The company

Civil society participation	SOFF operations will include a strong focus on community engagement, through security arrangement, capacity building and a close dialog. This will elevate understandi Participation of other partners (e.g., NGOs, CBOs, private sector, and academic institutions) will further promote the long-term sustainability of results. It is planned that CSO will be brought in through collaborative processes, specifically relevant during the stakeholder engagement workshops, where specific vulnerabiliti CSOs will be integral to the project's success, particularly in the stakeholder engagement workshops where vulnerabilities, gender issues, and local perspectives will be ac progresses, CSOs will play a pivotal role in preparing these stakeholders to independently manage and implement future government initiatives, ultimately driving sustai We are planning to organize up to 5 (regional and sub-regional) awareness meetings …in the communities. Local authorities, CSOs, community leaders, state lead person There will be strong collaboration between WHCA, MWRI, SSMS and FAO on the hydrological information sharing and dissemination. There is a strong interlink between the line ministries will participate, including the hydrometeorology. Planned activities: Stakeholder Engagement and Capacity Building • Organize workshops and community consultations to engage local communities, government, and other stakeholders on project goals and build some basic knowl Community Sensitization and Awareness Campaigns (5 subregional meetings) • Raise awareness on the importance of the work of SSMS and security of AWS locations using culturally relevant methods to ensure a broad understanding, particul Gender-Sensitive Advocacy and Policy Dialogue • Promote gender-sensitive approaches in climate resilience activities and support advocacy for inclusive climate policies, ensuring the participation of women and vu • Include CSOs (also with a women and gender equality focus) in regular PSC meetings
Fiduciary systems	**Information on the financial flows** FAO will implement the Fiduciary System, based on what is stipulated under the Memorandum of Understanding for Systematic Observations Financing Facility using Pas Audit, and in accordance with FAO's regulations, rules, policies and procedures.
Social and environmental safeguards	The project will be implemented in compliance with FAO's Framework for Environmental and Social Management (FESM). The project's environment and social safegua SEA, prevention of gender-based violence (GBV), preventing child labour and others. The implementing partner/contractor will be committed to the FESM through C-ESMP and the code of conduct (CoC) in compliance to the national laws of the Republi Immediate concerns will be brought to the attention of the SOFF Secretariat, whereas regular updates will be delivered via the annual narrative progress report.
Dispute resolution mechanism	The FAO Grievance Redress Mechanism (GRM) is a structured process designed to ensure that individuals, communities, and stakeholders affected by FAO-supported prc continuous improvement in project implementation. The GRM will enable affected parties to voice grievances related to social, environmental, or operational impacts, an human rights, social safeguards, and participatory development. The GRM will include multiple channels that are appropriate to the project context such as Suggestion boxes, Toll free line 515(General grievances) & 882(GBV &SEA) ar
Additional relevant policies and procedures	SOFF, with the support of the peer advisor, will oversee and monitor the activities. FAO will complete the Progress Reviews (IPR) based on FAO's M&E template twice a ye FAO policies consider the importance of gender transformation and equity in all its projects by prioritizing the social dimension and adopting gender-transformative and goal. Building on lessons learned, the Policy underlines that, in order to advance on the ambitious objectives it sets, FAO needs to go beyond "business as usual". We nee but also within our own Organization. A successful implementation of the Policy means embracing innovation, fostering partnerships, leveraging impact, and enhancing t resources, services and opportunities, is a winning strategy to accelerate progress towards capacity development. In view of this FAO will encourage SSMS to practice ger

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	Description
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
FAO	20	30	10	30	10	100
WMO	20	30	10	30	10	100
Total contribution by target	**40**	**60**	**20**	**60**	**20**	
Project contribution to SDG by target	**20**	**30**	**10**	**30**	**10**	**100**

Project Results

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

Outcome	Output	Description			
	Activities				
	Title	**Description**	**Lead Participating Organization**	**Participating Organization**	**Other Organizations**
	Advocacy workshop	Advocacy towards the establishment of the legal framework defining role and mandate of the SSMS.	FAO - FAO (Food and Agriculture Organization)	• WMO - WMO (World Meteorological Organization)	CREWS
	Steering committee meetings	Organize SOFF Project Steering committee meetings with relevant governmental entities (quarterly)	FAO - FAO (Food and Agriculture Organization)	• WMO - WMO (World Meteorological Organization)	
	Gender mainstreaming	Workshops on Gender mainstreaming	FAO - FAO (Food and Agriculture Organization)	• WMO - WMO (World Meteorological Organization)	University of Juba
	Kick-off Stakeholder Meeting/Workshop	Workshop	FAO - FAO (Food and Agriculture Organization)	• WMO - WMO (World Meteorological Organization)	
	Visit with university of Juba and RTC in Nairobi	Visits/Meetings	FAO - FAO (Food and Agriculture Organization)	• WMO - WMO (World Meteorological Organization)	University of Juba; RTC Nairobi
	Community Awareness & Sensitization	Meetings/trainings	FAO - FAO (Food and Agriculture Organization)	• WMO - WMO (World Meteorological Organization)	
	1.2 SSMS institutional capacity developed	1.2 SSMS institutional capacity required to operate the GBON network developed			

<table>
<tr><th>Outcome</th><th>Output</th><th colspan="5">Description</th></tr>
<tr><td rowspan="6"></td><td colspan="6">Activities</td></tr>
<tr><td>Title</td><td>Description</td><td>Lead Participating Organization</td><td>Participating Organization</td><td>Other Organizations</td></tr>
<tr><td>Legislative framework workshop</td><td>Support development of the legislative framework</td><td>FAO - FAO (Food and Agriculture Organization)</td><td>• WMO - WMO (World Meteorological Organization)</td><td>CREWS</td></tr>
<tr><td>Develop a Calibration plan for SS</td><td>meetings</td><td>FAO - FAO (Food and Agriculture Organization)</td><td>• WMO - WMO (World Meteorological Organization)</td><td></td></tr>
<tr><td>Development of a data sharing policy framework</td><td>Support the development of policy or national strategy at government level on data sharing, public data services or public-private engagement.</td><td>FAO - FAO (Food and Agriculture Organization)</td><td>• WMO - WMO (World Meteorological Organization)</td><td></td></tr>
<tr><td>Capacity building management and staff</td><td>Capacity building for SSMS management and staff (benchmark with other weather service, exchange with WMO ETR, training on Project Management, financing training)</td><td>FAO - FAO (Food and Agriculture Organization)</td><td>• WMO - WMO (World Meteorological Organization)</td><td>WMO ETR</td></tr>
<tr><td>Gender assessment plan</td><td>Conduct Gender assessment plan</td><td>FAO - FAO (Food and Agriculture Organization)</td><td>• WMO - WMO (World Meteorological Organization)</td><td>to be identified</td></tr>
<tr><td></td><td>1.3 SSMS human capacity developed</td><td colspan="5">1.3 SSMS human capacity required to operate the GBON network developed</td></tr>
</table>

<table>
<tr><th>Outcome</th><th>Output</th><th colspan="5">Description</th></tr>
<tr><td rowspan="5"></td><td colspan="6">Activities</td></tr>
<tr><td></td><td>Title</td><td>Description</td><td>Lead Participating Organization</td><td>Participating Organization</td><td>Other Organizations</td></tr>
<tr><td></td><td>Training activities</td><td>Train new and existing staff in weather observation and parameters, station components and maintenance, calibration, IT and ICT (basic and advanced), data transfer and WIS2 (will also be covered by CREWS),.</td><td>FAO - FAO (Food and Agriculture Organization)</td><td>• WMO - WMO (World Meteorological Organization)</td><td>RTC Nairobi, University of Juba</td></tr>
<tr><td></td><td>Technical visit and training on calibration in Nairobi</td><td>Training for 2 persons going to Nairobi</td><td>FAO - FAO (Food and Agriculture Organization)</td><td>• WMO - WMO (World Meteorological Organization)</td><td>RTC Nairobi</td></tr>
<tr><td></td><td>Exchange visit to Peer Advisor for higher management</td><td>Exchange visit</td><td>FAO - FAO (Food and Agriculture Organization)</td><td>• WMO - WMO (World Meteorological Organization)</td><td>Visit to Vienna GeoSphere Austria</td></tr>
<tr><td></td><td>Basic and best practices training for observers and care takers</td><td>trainings</td><td>FAO - FAO (Food and Agriculture Organization)</td><td>• WMO - WMO (World Meteorological Organization)</td><td></td></tr>
<tr><td></td><td>Establish an LoA with the SSMS</td><td>LoA</td><td>FAO - FAO (Food and Agriculture Organization)</td><td>• WMO - WMO (World Meteorological Organization)</td><td>SSMS</td></tr>
<tr><td>2. GBON infrastructure in place</td><td></td><td colspan="5"></td></tr>
<tr><td></td><td>2.2 Improved land-based stations in place</td><td colspan="5">2.2 Improved land-based stations and related equipment, ICT systems, data management systems and standard operating practices in place</td></tr>
</table>

Outcome	Output	Description			
	Activities				
	Title	**Description**	**Lead Participating Organization**	**Participating Organization**	**Other Organizations**
	Site/Field visits of AWSs/manual stations	Visits	FAO - FAO (Food and Agriculture Organization)	• WMO - WMO (World Meteorological Organization)	
	Verification kits for field calibration	Procure and install Mobile (portable) AWS sensors verification kit	FAO - FAO (Food and Agriculture Organization)	• WMO - WMO (World Meteorological Organization)	
	ICT	Procure and install cluster server and data storage equipment including aggregation software	FAO - FAO (Food and Agriculture Organization)	• WMO - WMO (World Meteorological Organization)	
	ICT – field computers	Computers	FAO - FAO (Food and Agriculture Organization)	• WMO - WMO (World Meteorological Organization)	
	Mobiles	Procure phones for observers and the 5 manual stations + mobile credit	FAO - FAO (Food and Agriculture Organization)	• WMO - WMO (World Meteorological Organization)	
	Internet	Provide internet connection to transfer the data from AWS to a central server – GPRS	FAO - FAO (Food and Agriculture Organization)	• WMO - WMO (World Meteorological Organization)	
	Satellite transmitter	Modem for satellite transmission	FAO - FAO (Food and Agriculture Organization)	• WMO - WMO (World Meteorological Organization)	
	Back up to the existing land based stations by installing new manual stations	Procure and Install 6 Manual Stations, including spare parts and maintenance and security	FAO - FAO (Food and Agriculture Organization)	• WMO - WMO (World Meteorological Organization)	
	Improvement of existing land-based stations	Replace batteries and fix the telecommunication issues of AWS stations selected for GBON (to start international data transmission/rescue) / Rehabilitation of existing stations if needed which includes upgrading of communication systems and programming for data transmission in accordance with GBON requirements.	FAO - FAO (Food and Agriculture Organization)	• WMO - WMO (World Meteorological Organization)	

Outcome	Output	Description			
3. Sustained compliance with GBON					
	3.1 GBON land-based stations commissioning period completed	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			
	Activities				
	Title	**Description**	**Lead Participating Organization**	**Participating Organization**	**Other Organizations**
	Commissioning of land-based stations	Engagement with Equipment testing, training on equipment management, repairs, and operationalization.	FAO - FAO (Food and Agriculture Organization)	• WMO - WMO (World Meteorological Organization)	

Signature Indicators

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

Imported Fund Outcome / Output Indicators

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year	Linked Outcome / Output
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	16	2027	**Outcome :** 2. GBON infrastructure in place **Output:** 2.2 Improved land-based stations in place
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	16	2029	**Outcome :** 3. Sustained compliance with GBON **Output:** 3.1 GBON land-based stations commissioning period completed

Project Indicators

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year	Linked Outcome / Output
# of people reached by advocacy activities		Stakeholder and advocacy action workshop – high level national dialogue	Annual or semi-annual progress updates	Policy	At closure	Country	Number	0	2026	25	2027	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.1 National Consultations conducted
	No components available.											
# of steering committee meeting reports		Organize SOFF Project Steering committee meetings with relevant governmental entities (quarterly)	Annual or semi-annual progress updates	Policy	At closure	Country	Number	0	2026	4	2029	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.1 National Consultations conducted
	No components available.											
# Gender Mainstreaming workshop report		Workshops on Gender mainstreaming	Annual or semi-annual progress updates	Capacity	At closure	Country	Number	0	2026	1	2028	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.1 National Consultations conducted
	% of females participants			Capacity	At closure	Global	Percentage	0	2026	10%	2028	
# Kick-off workshop report		Kick-off meeting/workshop with all stakeholders	Annual or semi-annual progress updates	Policy	At closure	Country	Number	0	2026	1	2026	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.1 National Consultations conducted
	No components available.											

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year	Linked Outcome / Output
# Meeting		Visit with university of Juba and RTC in Nairobi. Discuss and develop future training possibilities (1 in Juba and 1 in Nairobi)	Annual or semi-annual progress updates	Policy	At closure	Country	Number	0	2026	2	2029	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.1 National Consultations conducted
	No components available.											
# MoU signed between University, SSMS and RTC Nairobi		Discuss and develop future training possibilities (meetings planed 1 in Juba and 1 in Nairobi)	Annual or semi-annual progress updates	Policy	At closure	Country	Number	0	2026	1	2029	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.1 National Consultations conducted
	No components available.											
# people reached by awarenes s trainings		Raise awareness of the importance of the met infrastructur e on the community level (sub-regional trainings/m eetings)	Annual or semi-annual progress updates	Capacity	At closure	Country	Number	0	2026	50	2027	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.1 National Consultations conducted
	No components available.											
#of recomme ndation for a legislativ e framewor k		Stakeholder and advocacy action workshops	Annual or semi-annual progress updates	Policy	At closure	Country	Number	0	2026	2	2029	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.2 SSMS institutional capacity developed
	No components available.											

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year	Linked Outcome / Output
# of calibration plan developed		meetings	Annual or semi-annual progress updates	Policy	At closure	Country	Number	0	2026	1	2029	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.2 SSMS institutional capacity developed
	No components available.											
# of staff trained		Capacity building for SSMS management and staff (benchmark with other weather service, exchange with WMO ETR, training on Project Management, financing training)	Annual or semi-annual progress updates	Capacity	At closure	Country	Number	0	2026	20	2028	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.2 SSMS institutional capacity developed
	No components available.											
# of gender assessment plan report		Conduct Gender assessment plan	Annual or semi-annual progress updates	Capacity	At closure	Country	Number	0	2026	1	2029	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.2 SSMS institutional capacity developed
	No components available.											
# of feasibility study conducted on potential upper-air station in South Sudan		Consultancy fees for a feasibility study for the development of Upper Air	Annual or semi-annual progress updates	Investment	At closure	Country	Number	0	2026	1	2029	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.2 SSMS institutional capacity developed
	No components available.											

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year	Linked Outcome / Output
# number of staff members trained		Train new and existing staff in weather observation and parameters, station components and maintenance, calibration, IT and ICT (basic and advanced), data transfer and WIS2 (will also be covered by CREWS)	Annual or semi-annual progress updates	Capacity	At closure	Country	Number	0	2026	20	2028	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.3 SSMS human capacity developed
	No components available.											
# of trainings		training for up to 2 or 3 persons going to Nairobi	Annual or semi-annual progress updates	Capacity	At closure	Others	Number	0	2026	1	2028	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.3 SSMS human capacity developed
	No components available.											
# of visits to GeoSphere Austria's HQ in Vienna		Visits to Vienna	Annual or semi-annual progress updates	Capacity	At closure	Others	Number	0	2026	1	2028	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.3 SSMS human capacity developed
	No components available.											
#of observers & caretakers trained		Trainings for observers and caretakers	Annual or semi-annual progress updates	Capacity	At closure	Country	Number	0	2026	20	2027	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.3 SSMS human capacity developed
	No components available.											

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year	Linked Outcome / Output
# of LoA established		Establishment of an LOA with the SSMS	Annual or semi-annual progress updates	Capacity	At closure	Country	Number	0	2026	1	2026	**Outcome :** 1. GBON institutional and human capacity developed **Output:** 1.3 SSMS human capacity developed
	No components available.											
# of field Visits reports		Site/field visit /station tour to all selected GBON stations: to verify that AWS can be included in the GBON network/station check 1 Phase	Annual or semi-annual progress updates	Capacity	At closure	Country	Number	0	2026	5	2029	**Outcome :** 2. GBON infrastructure in place **Output:** 2.2 Improved land-based stations in place
	No components available.											
#of verification kit		Procure and install mobile AWS sensor verification kits	Annual or semi-annual progress updates	Investment	At closure	Country	Number	0	2026	2	2027	**Outcome :** 2. GBON infrastructure in place **Output:** 2.2 Improved land-based stations in place
	No components available.											
# of Server and data storage system in place		Establishment of the server and data storage system	Annual or semi-annual progress updates	Investment	At closure	Country	Number	0	2026	1	2027	**Outcome :** 2. GBON infrastructure in place **Output:** 2.2 Improved land-based stations in place
	No components available.											
#computers			Annual or semi-annual progress updates	Investment	At closure	Country	Number	0	2026	2	2027	**Outcome :** 2. GBON infrastructure in place **Output:** 2.2 Improved land-based stations in place
	No components available.											

Indicator Title	Component Title	Description	Means of Verification	Category	Cycle	Scope	Value Type	Baseline Value	Baseline Year	Target Value	Target Year	Linked Outcome / Output
#phones for observers		Observers for manual stations are equipped with mobile phones	Annual or semi-annual progress updates	Investment	At closure	Country	Number	0	2026	5	2027	**Outcome:** 2. GBON infrastructure in place **Output:** 2.2 Improved land-based stations in place
	No components available.											
%internet is working 80% of the time			Annual or semi-annual progress updates	Investment	At closure	Country	Percentage	0	2026	80	2030	**Outcome:** 2. GBON infrastructure in place **Output:** 2.2 Improved land-based stations in place
	No components available.											
#of modem installed			Annual or semi-annual progress updates	Investment	At closure	Country	Number	0	2026	1	2027	**Outcome:** 2. GBON infrastructure in place **Output:** 2.2 Improved land-based stations in place
	No components available.											
# of stations as defined in the National Contribution Plan – co-located to AWSs		# of new land-based stations installed (manual)	Annual or semi-annual progress updates	Investment	At closure	Country	Number	0	2026	6	2027	**Outcome:** 2. GBON infrastructure in place **Output:** 2.2 Improved land-based stations in place
	No components available.											

Risks

Event	Category	Level	Likelihood	Impact	Mitigating Measures	Risk Owner
Challenges in Cooperation, Joint coordination and mis-alignment of goals and processes.	• Organizational	High	Likely	Moderate	Build up the capacity of SSMS as quickly as possible	SSMS
Challenges in Cooperation, Joint coordination and misalignment of goals and processes.	• Organizational	High	Possible	Major	Recruit and train new staff as quickly as possible for SSMS	SSMS
Non-compliance with fiduciary and procurement standards in some SOFF activities	• Financial	High	Possible	Major	FAO will competitively select reputable institutions and implementing similar activities such projects in the country to assist in the implementation of the project thus mitigating this risk	FAO

SOFF-funded investments cause environmental or social impacts	• Social and Environmental	Low	Unlikely	Minor	The Project activities are not expected to present any Environmental and Social Impacts and risks. However, FAO will carry out an environmental and social assessment for the activities in this funding request upon the inception of the activities.	SSMS & FAO
SSMS (South Sudan Meteorological Service) staff depart after being trained	• Operational	High	Likely	Major	SOFF Support will be used to build the capacity of SSMS to manage its own budget and activities, including provision of information and services as well as better working conditions for staff i.e. Adequate payment, equipment and working space needed. The SSMS will offer continuing meteorological service to the public, as well as the aviation.	SSMS
Operational efficiency risk, causing low implementation and delays in procurement, installation and capacity building activities, resulting in failure of the project	• Operational	Medium	Likely	Minor	Realistic planning and strong support from the FAO fiduciary team, and Robust application of the FAO procurement regulations. Adapt the buffer zone within the 4 years of the project.	FAO
After the conclusion of the Investment phase, GBON data are not collected or shared or are shared of insufficient quality	• Operational	High	Possible	Major	The project will support SSMS to recruit and train staff. The staff will be offered permanent government contracts. This will increase the number of operational staff. An independent SSMS with a dependable budget to manage its activities will motivate staff. Also, the project will be linked to ICPAC, hence accessing regional support	SSMS
Destruction or theft of SOFF-financed equipment and infrastructure	• Operational	High	Possible	Moderate	Station deployment close to populated areas and existing government infrastructures. Through advocacy work and outreach programs, SSMS will enlighten the population on the importance of project equipment and consequently guard them against theft	SSMS
Countries cannot make optimal use of data, including accessing or using improved forecasts products from the Global Producing Centers throughout the hydromet value chain	• Operational	High	Possible	Moderate	Training and other capacity development activities will be provided to technical staff, including forecaster	SSMS
Political instability and regulatory risks which will impact the successful completion of the Investment Phase	• Political	High	Possible	Extreme	Mitigation measures will be put in place to reduce risk related to political instability. Such equipment is installed in areas where they will remain safe in the event of political instability. Staff movement will be restricted only to provide services in areas of low riskPlease write proposed mitigation measures.	SSMS
Capacity gaps in technical skills after completion of the investment phase	• Organizational	Low	Unlikely	Minor	To mitigate technical skill capacity gaps after the investment phase, a thorough skills gap analysis will be conducted to identify specific needs and recommend need-driven learning and development programs, like formal training, online courses and or link SSMS to regional meteorological services such as ICPAC	SSMS

The occurrence of Natural disasters such as floods, drought, and heat waves will impact livelihoods.	• Strategic	High	Possible	Major	SSMS will have the capacity to implement systems using the National Early Warning Technical Working Group (NEWTWG), weekly and monthly forecasts to provide early warning messages about impending weather-related hazards, enabling communities to take appropriate actions.	SSMS

Budget by UNSDG Categories: Over all

Budget Lines	Description	FAO (7%) *	WMO (7%) *	Total
1. Staff and other personnel		$326,969.00	$0.00	$326,969.00
2. Supplies, Commodities, Materials		$362,155.00	$0.00	$362,155.00
3. Equipment, Vehicles, and Furniture, incl. Depreciation		$149,855.00	$0.00	$149,855.00
4. Contractual services		$0.00	$212,942.80	$212,942.80
5. Travel		$98,000.00	$0.00	$98,000.00
6. Transfers and Grants to Counterparts		$500,400.00	$0.00	$500,400.00
7. General Operating and other Direct Costs		$293,228.48	$0.00	$293,228.48
Project Costs Sub Total		**$1,730,607.48**	**$212,942.80**	**$1,943,550.28**
8. Indirect Support Costs		$121,142.52	$14,906.00	$136,048.52
Total		**$1,851,750.00**	**$227,848.80**	**$2,079,598.80**

Performance-based Tranches Breakdown

Tranche			Total
Tranche 1	FAO (65%)	$1,203,637.50	$1,279,579.51
	WMO (33.33%)	$75,942.01	
Tranche 2	FAO (35%)	$648,112.50	$724,054.51
	WMO (33.33%)	$75,942.01	
Tranche 3	FAO (0%)	$0.00	$75,964.79
	WMO (33.34%)	$75,964.79	
			$2,079,598.80

Results based budget

Outcome *	Output *	Agency *	Budget (USD) *
1. GBON institutional and human capacity developed		**Sub Total**	**$1,190,852.07**
	1.1 National Consultations conducted	FAO (7%)	$79,000.00
	1.1 National Consultations conducted	WMO (7%)	$47,379.80
	1.2 SSMS institutional capacity developed	FAO (7%)	$366,454.77
	1.2 SSMS institutional capacity developed	WMO (7%)	$64,370.50
	1.3 SSMS human capacity developed	FAO (7%)	$611,800.00
	1.3 SSMS human capacity developed	WMO (7%)	$21,847.00
2. GBON infrastructure in place		**Sub Total**	**$537,050.21**
	2.2 Improved land-based stations in place	FAO (7%)	$487,752.71
	2.2 Improved land-based stations in place	WMO (7%)	$49,297.50
3. Sustained compliance with GBON		**Sub Total**	**$215,648.00**
	3.1 GBON land-based stations commissioning period completed	FAO (7%)	$185,600.00
	3.1 GBON land-based stations commissioning period completed	WMO (7%)	$30,048.00
Total			**$1,943,550.28**

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						
		Advocacy workshop					
			FAO	☐	☑	☐	☐
			WMO	☐	☑	☐	☐
		Steering committee meetings					
			FAO	☑	☑	☑	☑
			WMO	☑	☑	☑	☑
		Gender mainstreaming					
			FAO	☐	☐	☑	☐
			WMO	☐	☐	☑	☐
		Kick-off Stakeholder Meeting/Workshop					
			FAO	☑	☐	☐	☐
			WMO	☑	☐	☐	☐
		Visit with university of Juba and RTC in Nairobi					
			FAO	☑	☐	☐	☐
			WMO	☑	☐	☐	☐
		Community Awareness & Sensitization					
			FAO	☑	☑	☐	☐
			WMO	☑	☑	☐	☐
	1.2 SSMS institutional capacity developed						
		Legislative framework workshop					
			FAO	☐	☑	☐	☑
			WMO	☐	☑	☐	☑
		Develop a Calibration plan for SS					
			FAO	☐	☐	☐	☑
			WMO	☐	☐	☐	☑
		Development of a data sharing policy framework					
			FAO	☐	☐	☐	☑
			WMO	☐	☐	☐	☑
		Capacity building management and staff					
			FAO	☑	☐	☑	☐
			WMO	☑	☐	☑	☐
		Gender assessment plan					
			FAO	☐	☑	☐	☐
			WMO	☐	☑	☐	☐
	1.3 SSMS human capacity developed						
		Training activities					
			FAO	☐	☐	☑	☐
			WMO	☐	☐	☑	☐
		Technical visit and training on calibration in Nairobi					
			FAO	☐	☐	☑	☐
			WMO	☐	☐	☑	☐
		Exchange visit to Peer Advisor for higher management					
			FAO	☐	☐	☑	☐
			WMO	☐	☐	☑	☐
		Basic and best practices training for observers and care takers					
			FAO	☐	☑	☐	☐
			WMO	☐	☑	☐	☐
		Establish an LoA with the SSMS					
			FAO	☐	☑	☐	☐
			WMO	☐	☑	☐	☐
2. GBON infrastructure in place							
	2.2 Improved land-based stations in place						
		Site/Field visits of AWSs/manual stations					
			FAO	☑	☑	☑	☑
			WMO	☑	☑	☑	☑
		Verification kits for field calibration					
			FAO	☐	☑	☐	☐
			WMO	☐	☑	☐	☐

Outcome	Output	Activity	Implementing Agent	Time Frame			
				2026	2027	2028	2029
				1	1	1	1
		ICT					
			FAO	☐	☑	☐	☐
			WMO	☐	☑	☐	☐
		ICT – field computers					
			FAO	☐	☑	☐	☐
			WMO	☐	☑	☐	☐
		Mobiles					
			FAO	☐	☑	☐	☐
			WMO	☐	☑	☐	☐
		Internet					
			FAO	☑	☑	☑	☑
			WMO	☑	☑	☑	☑
		Satellite transmitter					
			FAO	☐	☑	☐	☐
			WMO	☐	☑	☐	☐
		Back up to the existing land based stations by installing new manual stations					
			FAO	☐	☑	☐	☐
			WMO	☐	☑	☐	☐
		Improvement of existing land-based stations					
			FAO	☐	☑	☑	☐
			WMO	☐	☑	☑	☐
3. Sustained compliance with GBON							
	3.1 GBON land-based stations commissioning period completed						
		Commissioning of land-based stations					
			FAO	☑	☑	☑	☑
			WMO	☑	☑	☑	☑

Signatures

FAO: FAO (Food and Agriculture Organization) (Digital) Dr Meshack Malo meshack.malo@fao.org	**SIGNATURE:** **DATE:** 15-12-2025
WMO: WMO (World Meteorological Organization) (Digital) Celeste Saulo Secretary General csaulo@wmo.int	**SIGNATURE:** **DATE:**

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 GeoSphere Austria to South Sudan 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 tool[1]
- 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 Pre diction (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 (Please copy the indicators from RBM section of the Investment Funding request.)	Activities conducted / contributions (Please list all activities that will be conducted by the peer advisor relevant to the output. Please add rows if more than one activity will be conducted.)	Implementation plan				
			Y1	Y2	Y3	Y4	Y5
1.1 **National consultations**, including with CSOs and other relevant stakeholders conducted	# of people reached by advocacy activities	Advice on the advocacy activities		25			
	# of steering committee meeting reports	Peer Advisor attends and contribute in project meetings (once a year in person) - 4 travels for in person meetings	1	1	1	1	
	# Gender Mainstreaming workshop Report / % of female working at SSMS	Giving advice on gender mainstreaming activities & the workshop	5%	10%	1 / 10 %	10 %	
	# Kick-off workshop report	Participation of Peer Advisor at the kick-off workshop (1-2 persons from GeoSphere Austria)	1				
	# Meeting	Assist in preparing visit with university of Juba and RTC in Nairobi, Discuss and develop future training possibilities	1	1			

Output	Indicator (Please copy the indicators from RBM section of the Investment Funding request.)	Activities conducted / contributions (Please list all activities that will be conducted by the peer advisor relevant to the output. Please add rows if more than one activity will be conducted.)	Implementation plan				
			Y1	Y2	Y3	Y4	Y5
	# MoU signed between University, SSMS and RTC Nairobi	Support in provision and coordination of the training activities with the university of Juba and RTC in Nairobi; several online meetings and one meeting in person with RTC in Nairobi (can be combined with other travels to/from Juba)				1	
	# people reached via community awareness activities	Support in preparing 5 community awareness & Sensitization meetings (online support)	25	25			
1.2 **NMHS institutional capacity** required to operate the GBON network developed	# of recommendation for a legislative framework	Advice for policy development and high-level engagement on the legislative framework for SSMS, several online meetings & participation (online) at workshops		1		1	
	# of calibration plan developed	Advice and support on calibration plan meetings to develop a first draft based on the national possibilities				1	
	# recommendation for a data sharing policy	Support the development of policy or national strategy at government level on data sharing, public data services or public-private engagement. Online meetings + in person if combined with other travel activities.				1	
	# of staff members trained	Assist in preparing capacity building trainings for SSMS Online support/trainings Participate at 5 trainings online	10		10		

Output	Indicator (Please copy the indicators from RBM section of the Investment Funding request.)	Activities conducted / contributions (Please list all activities that will be conducted by the peer advisor relevant to the output. Please add rows if more than one activity will be conducted.)	Implementation plan				
			Y1	Y2	Y3	Y4	Y5
	#gender assessment plan report	Giving advice on a gender assessment plan		1			
	# of feasibility study conducted on potential upper-air station in South Sudan	Preparing the feasibility study, including one field visit of an expert, desk research and preparation of the study				1	
1.3 **NMHS human capacity** required to operate the GBON network developed	# of staff members trained	Assist in planning the training for new and existing staff in weather observation and parameters, station components and maintenance, calibration, IT and ICT (basic and advanced), data transfer and WIS2 (will also be covered by CREWS		20			
	# of training manual	Peer Advisor will develop a training manual with support from WMO, University of Juba, and RTC in Nairobi and will conduct the training for the SSMS staffs.			1		
	# of trainings	Advising on preparing technical visit and training on calibration in Nairobi			1		
	# of visits to GeoSphere Austria's HQ in Vienna	Organise one exchange visit for SSMS management (max 2 persons to Vienna); facilitating expert exchange & knowledge transfer			1		

Output	Indicator (Please copy the indicators from RBM section of the Investment Funding request.)	Activities conducted / contributions (Please list all activities that will be conducted by the peer advisor relevant to the output. Please add rows if more than one activity will be conducted.)	Implementation plan				
			Y1	Y2	Y3	Y4	Y5
	# of observers & care takers trained	Assist in planning the training for the new observers and care takers		20			
	# LoA established	Reviewing the LoA for the Civil Aviation Authority (online support)		1			
2.1 **New land-based stations** and related equipment, ICT systems, data management systems and standard operating practices in place	N/A						
2.2 **Improved land-based stations** and related equipment, ICT systems, data management systems and standard operating practices in place	# of field Visits reports	Technical advice on planning the field mission + two in person inspections (combined with a travel to Juba); Use of KoBo Tool Box for station mission (digital, open source database); 2 online trainings on KoBo Tool Box (one before and after the missions)	2	1	1	1	
	# of verification kit	Advice on selection of verification kits		2			
	# of Server and data storage system in place	Advice on Server and data storage system		1			

Output	Indicator (Please copy the indicators from RBM section of the Investment Funding request.)	Activities conducted / contributions (Please list all activities that will be conducted by the peer advisor relevant to the output. Please add rows if more than one activity will be conducted.)	Implementation plan				
			Y1	Y2	Y3	Y4	Y5
	# computers	Advice on selection and purchase of computers		2			
	# of phones for observers	Technical advice on phones for observers		5			
	% of internet is working 80% of the time	Technical advice on internet provider	20	40	80	80	
	# of modem installed	Technical advice on modem		1			
	# of new land-based stations (manual) installed	Technical support on tenders' specifications and purchasing processes for the new land-based manual stations co-located with 5 GBON AWS stations + one at the University at Juba		6			
	# ICT system and data management system is working for 5 news manual stations	Technical support and advice on ICT/data management system for manual stations (to become one unit – one WIGOS ID with the corresponding AWS)		6			
	# of stations improved as per the GBON National Contribution Plan	Technical support on easy fixes, advice on data transmission issues, purchasing processes etc.		8	8		
2.3 **New upper air stations** and related equipment, ICT systems, data management	# of stations improved as per the GBON National Contribution Plan	N/A					

Output	Indicator (Please copy the indicators from RBM section of the Investment Funding request.)	Activities conducted / contributions (Please list all activities that will be conducted by the peer advisor relevant to the output. Please add rows if more than one activity will be conducted.)	Implementation plan				
			Y1	Y2	Y3	Y4	Y5
systems and standard operating practices in place							
2.4 **Improved upper air stations** and related equipment, ICT systems, data management systems and standard operating practices in place	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	Assisting in equipment testing, training, management and operationalisation Support on SOP development and quality control and quality assurance mechanism	16	16	16	16	

Output	Indicator (Please copy the indicators from RBM section of the Investment Funding request.)	Activities conducted / contributions (Please list all activities that will be conducted by the peer advisor relevant to the output. Please add rows if more than one activity will be conducted.)	Implementation plan				
			Y1	Y2	Y3	Y4	Y5
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	N/A						

Signatures

Peer advisor focal point	Giora Gershtein SOFF focal point 11.09.2025 08.01.2026
Country focal point	Mojwok Ogawi Modo PR of SS with WMO SSMS – SSCAA For South Sudan Meteorological Service(SSMS), South Sudan Civil Aviation Authority (SSCAA) Date 28/01/2026

SOUTH SUDAN CIVIL AVIATION AUTHORITY
DIRECTOR GENERAL'S OFFICE
09 JAN 2026
DEPARTMENT OF METEOROLOGY