



Eighth Steering Committee
18-19 June 2024

SOFF Investment Phase Funding Request

Decision 8.4.1

Systematic Observations
Financing Facility

**Weather
and climate
data for
resilience**



Decision 8.4.1: Approval of SOFF Investment Phase Funding Requests

The SOFF Steering Committee

Notes with concern the challenging financial situation of the SOFF UN Fund limiting its ability to approve country funding requests.

Approves, given SOFF financial resource constrains,

- the Investment phase funding request for Chad with a total budget of USD 6,980,084 and the Investment funding request for Uganda with a total budget of USD 6,316,536.
- the Investment phase funding requests of five additional countries subject to availability of financial resources and Implementing Entities' signature of African Development Bank and World Bank with the UNMPTF Office in the following order: Madagascar (USD 4,434,771), Timor-Leste (USD 5,756,742), Samoa (USD 6,005,375), Nauru (USD 6,194,529) and Malawi (USD 3,876,356).

Decides to consider further funding requests as soon as additional resources have been mobilized.

Encourages the SOFF Advisory Board members to use their respective programmes to maximize country-level synergies and complementarities.

Requests

- the Implementing Entity to prepare the required documentation in the SOFF UNMPTF Gateway Platform.
- the UNMPTF Office to disburse the first tranche of the approved funding requests of Chad and Uganda to the recipient organizations, provided liquidity.
 - World Food Programme: USD 4,511,559
 - Islamic Development Bank: USD 4,032,095
 - World Meteorological Organization: USD 363,764
- the UNMPTF to disburse the second and third tranches for Chad and Uganda upon request, according to the schedule stipulated in the legal agreements and contingent upon availability of funds in the SOFF UNMPTF.
- WMO to issue Assignment Agreements with the peer advisor that include the Terms of Reference as stated in the annex of the funding request.
- subject to availability of financial resources, the UNMPTF Office to disburse the first tranche of the funding request for Madagascar, Timor Leste, Samoa, Nauru and Malawi upon request of the Steering Committee co-chairs.

Purpose of this document

The document provides an assessment of the prioritized Investment phase funding request for Chad based on the SOFF programming criteria.

It outlines key information regarding the Global Basic Observing Network, the investment targets and needs in the country, the budget, the implementation arrangements and summarizes the results of a preliminary risk assessment.

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SOFF Investment Funding Request Project Document

<p>Project Title:</p> <p>SOFF Investment funding requests</p>	<p>Recipient Organizations:</p> <p>World Food Programme, Islamic Development Bank, World Meteorological Organization</p>
<p>Project Contact:</p> <p>Markus Repnik SOFF Secretariat 7bis Avenue de la Paix Case postale 2300 Nations, 1211 Genève Telephone: +41797901882</p>	<p>Project Location:</p> <p>WMO Secretariat Geneva 7bis Avenue de la Paix Case postale 2300 Nations, 1211 Genève</p>
<p>Project Description:</p> <p>Assessment of funding requests presented for approval by the Steering Committee.</p>	<p>Total Project Cost</p> <p>USD 13,296,620</p>
	<p>Project Start Date: 1 July 2024 Proposed Project End Date: 30 June 2029 Project Duration: 5 years</p>
<p>For the Recipient Organizations:</p> <p>Prof. Celeste Saulo Secretary-General World Meteorological Organization</p> <p>Signature: </p>	<p>Chair of the SOFF Steering Committee:</p> <p>Satu Santala Managing Director Nordic Development Fund Co-Chair of the SOFF Steering Committee</p> <p>Signature: </p>

SOFF Investment Funding Requests

1. Funding requests overview

Based on the application of the prioritization approach, and in light of the currently available resources, two Investment phase funding requests are proposed for funding by the 8th SOFF Steering Committee. The table below presents basic information on the selected Funding Requests (Table 1).

Table 1. SOFF Investment phase Funding Requests for consideration by the 8th SOFF Steering Committee.

No.	Country	Implementing Entity (IE)	Peer advisor	Duration (years)	Peer advisor fee	IE funding USD
IPFR12	Chad	WFP	Austria	5	500,000	6,445,084
IPFR13	Uganda	IsDB	Netherlands	4	520,000	5,760,136
Subtotal ¹						13,225,220
WMO indirect support costs (7%) ²					71,400	
TOTAL USD						13,296,620

¹ The subtotal includes the Implementing Entity fee corresponding to 6.5% of the total of all investment phase outputs.

² WMO indirect support costs correspond to the 7% of the peer advisory services of all the funding requests.

2. Prioritization based on the SOFF Programming Criteria

2.1 Closing the GBON gaps and easy fixes

SOFF investments prioritize funding in geographic areas that currently have the poorest observational coverage, where strengthening the observing network is expected to yield the largest results for the improvement of the quality of global numerical weather prediction products.

Africa is the continent with the largest GBON data gaps. Of its 53 countries, 36 are Least Developed Countries (LDCs) and Small Island Developing States (SIDS), showing a compliance rate of 7% for surface land stations and 9% for upper air stations. The total GBON gap in African LDCs and SIDS corresponds to 74% for surface land stations and 66% for upper air stations of the total GBON gap in all LDCs and SIDs. The figure below shows the status of GBON compliance for surface land stations worldwide. The compliance rate for upper air stations is even lower, considering the high costs and complexity of installing and maintaining upper air stations.

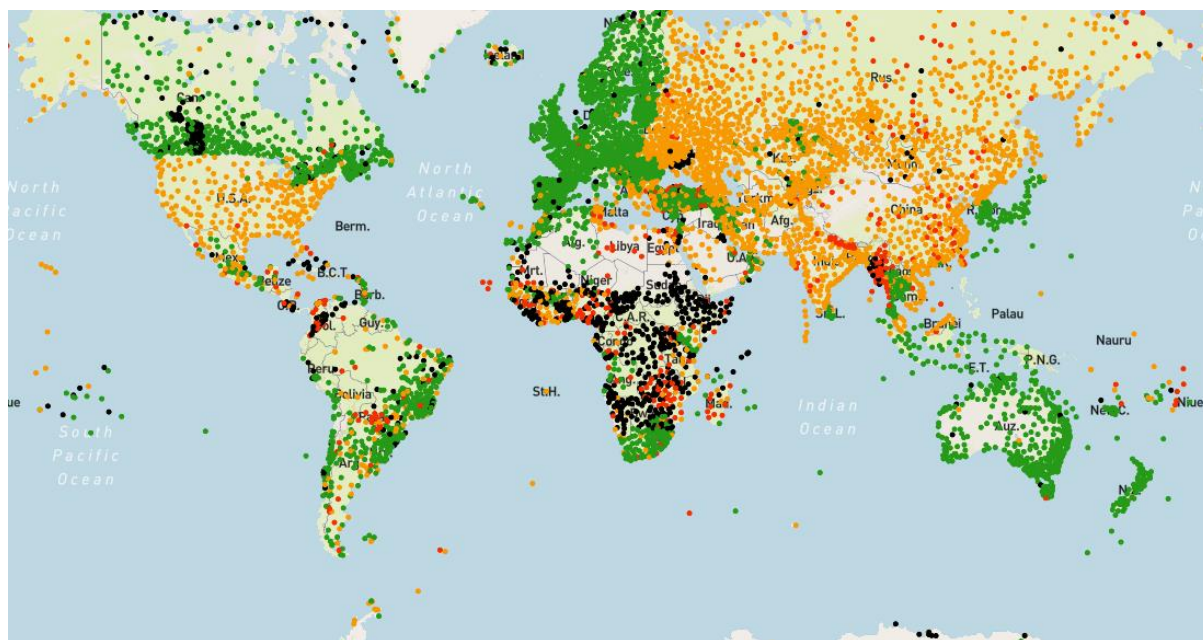


Figure 1. Availability of GBON surface land observations for May 14, 2024 as shown in the WIGOS Data Quality Monitoring System (WDQMS) Webtool. Black dots indicate that no observations were received by numerical weather prediction (NWP) Centers by this specific surface land station on that day. Red dots indicate that less than 30% (more than 0 and less than or equal 7) observations were received. Orange dots indicate that more than 30% (more than 7 and less than or equal 19) observations were received. Green dots indicate more than 80% (more than 19) observations received, which is the minimum threshold for an individual surface station to be considered GBON compliant.

To maximize the efficiency of investments and accelerate the achievement of GBON compliance, countries are also encouraged to capitalize on existing infrastructure and

identify situations where through relatively small interventions, stations and related infrastructure can be fixed to start quickly delivering the data into the global system per GBON regulations.

The WMO Global GBON Gap Analysis 2023 revealed significant deficiencies in Chad's observing network. Covering an area of 1,284,000 km², Chad has only 1 surface station meeting GBON standard density requirements and no upper air capacity.

At the regional level, the country is located in a severely under-observed area. None of the neighbouring countries currently demonstrate GBON compliance and almost none are supported by SOFF, with the exception of Sudan, where SOFF operations are currently suspended and Niger, which is currently experiencing political instability. The Figure below shows the availability of GBON surface land observations in Chad and the neighboring countries according to the WQDMS.

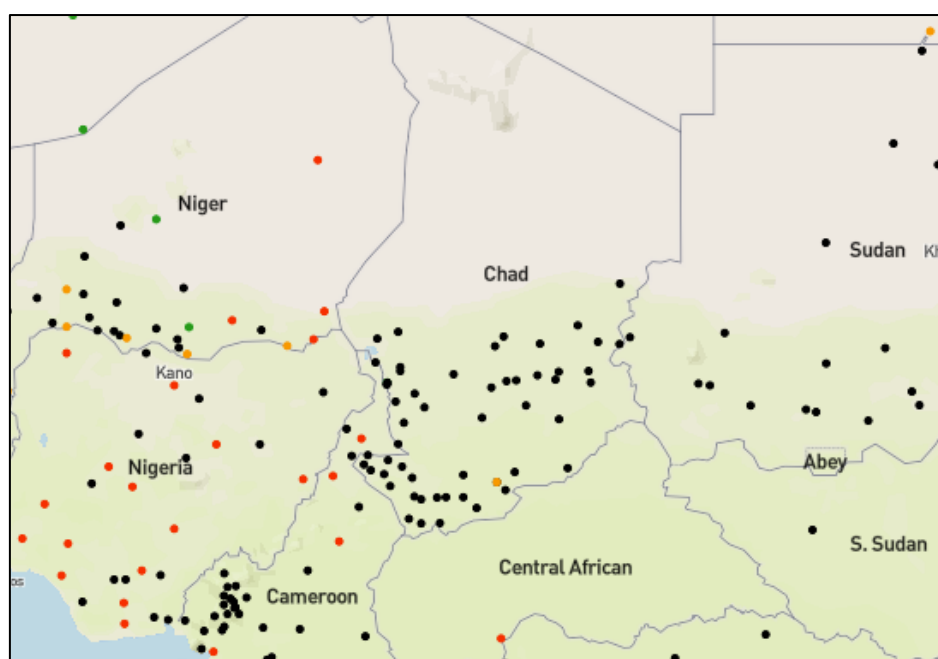


Figure 2. Availability of GBON surface land station observations in Chad and neighbouring countries for 14 May 2024 as shown in the WQDMS webtool. There are no GBON compliant (green) stations in Chad and very few in the neighbouring countries.

Given the extensive land area, according to the GBON standard density requirements, the country is expected to have 33 surface stations and 6 upper air stations. Table 2

shows the results of the WMO Global Gap Analysis on the status of the observing network in the country.

Table 2. WMO GBON Global Gap Analysis 2023 (left) for Chad and National Investment Targets based on in-country assessments by peer advisors during the Readiness phase (right).

WMO GBON Global Gap Analysis						National Investment Targets ³			
Surface stations			Upper air stations			Surface stations		Upper air stations	
Reporting	Gap New	Gap Improve	Reporting	Gap New	Gap Improve	Gap New	Gap Improve	Gap New	Gap Improve
1	0	32	0	4	2	6	27	3	0

The assessment conducted during the Readiness phase shows that there is considerable infrastructure in the country that can be rehabilitated as easy fixes through SOFF support. In addition, efficiency gains will be pursued by leveraging ongoing and upcoming investments that complement SOFF support.

Given the fragile national and regional context, the strengthening of the observing network in Chad will be achieved through a collaborative effort between several partners including co-financing from UNDP, World Bank and CREWS.

Chad is currently implementing a project with the support of UNDP for the advancement of the National Adaptation Plan. Twenty-seven stations have been installed, 19 of which are operational requiring minimum improvements to ensure data transmission and the installation of WIS2.0, while six are not operational and need to be completely rehabilitated to transmit data internationally. Two stations are currently being installed by UNDP and will require SOFF support to be upgraded as well as for operations and maintenance.

In terms of upper air stations, Chad has three upper air stations operated by the Agency for Aerial Navigation Safety in Africa and Madagascar (ASECNA) with delegated authority, but they are not transmitting data internationally. Three new ones will be installed with SOFF support. A data sharing agreement will be established between ASECNA and the national meteorological agency (ANAM). Through this agreement, data generated by the three existing upper air stations will reach ANAM. The data management system developed through SOFF support will enable ANAM to share internationally data from all the six stations. ASECNA is expected to continue playing a significant role in supporting to operate the observing network.

ICT infrastructure will be covered by a World Bank project focused on establishment of the hydrometeorological operational forecast center expected to be rolled out in 2024–

³ The National Investment Target is based on the GBON National Contribution Plan and indicates the number of stations that are going to be installed and/or improved to fill the gap toward GBON Compliance.

2025. SOFF support is required to ensure the sustainability of all the GBON stations. Overall, the proposed approach highlights how the partners working on SOFF investments in Chad are operationalizing the programming criteria and ensuring efficiency of SOFF investment.

Uganda

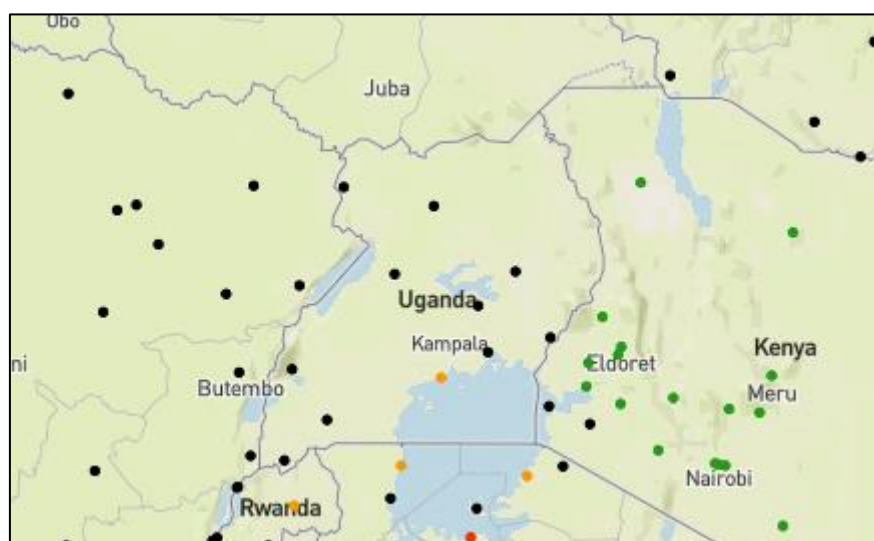


Figure 3. Availability of GBON surface land station observations in Uganda for June 17th, 2024 and neighbouring countries as shown in WDQMS. There are no GBON compliant stations (green) in Uganda and in the majority of the neighbouring countries.

All stations in Uganda are experiencing severe issues related to data transmission and therefore there is no GBON compliant station in the country. With SOFF support, the country will rehabilitate nine existing surface land station, revamp an existing upper air station and install a new one. No investments in new surface stations are needed.

Table 3. WMO GBON Global Gap Analysis 2023 (left) for Uganda and National Investment Targets based on in-country assessments by peer advisors during the Readiness Phase (right).

WMO GBON Global Gap Analysis	National Investment Targets
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Surface stations			Upper air stations			Surface stations		Upper air stations	
Reporting	Gap New	Gap Improve	Reporting	Gap New	Gap Improve	Gap New	Gap Improve	Gap New	Gap Improve
0	0	7	0	1	0	0	9	1	1

According to the GBON Global Gap Analysis, Uganda requires seven surface land stations and one upper air station to achieve the GBON standard requirements.

However, through the flexibility principle, the country has requested to improve two additional surface stations and one upper air station to ensure adequate coverage of the national territory. Two stations are located near the border of the Democratic Republic of the Congo, where armed conflict might disrupt the implementation of SOFF, rendering these close-border stations of sub-regional importance to increase data density in a conflict-afflicted area.

2.2 Create leverage and maximize delivery capacity

SOFF strives to create leverage by aligning SOFF operations with larger projects/programs by the Implementing Entities and other climate and environment funds.

Chad

The implementation of the SOFF Investment phase in Chad is managed by WFP as implementing entity, with the technical support of Geosphere Austria as peer advisor.

There is a wealth of ongoing or upcoming projects in Chad complementary to SOFF support. Working on synergy with partners will ensure that the results of SOFF interventions are carried across the meteorological value chain and contribute to broader development efforts and humanitarian action in the country. A selection of projects is presented below.

- The CREWS Project on Climate Risks and Early Warning System focuses on agrometeorological information enhancement at three pilot sites.
- The 'Food Safety and Resilience Program' by the World Bank supports weather services development with training and observation systems for better agricultural decision-making.
- The PILIER project by World Bank (Projet Intégré pour la Lutte contre les inondations et la résilience urbaine à N'Djaména) aims at strengthening early warning and disaster preparedness in N'Djaména.

- An IFAD project focuses on the integration of climate information and observation stations to support agriculture and an agricultural insurance program in specific regions.
- The PGCRCT project by UNDP (Projet Gestion Communautaire des Risques Climatiques), focuses on building response capacities of vulnerable populations in climate-sensitive areas.
- The Early Warnings for All (EW4All) initiative and GCF Project Preparation Facility includes Chad within the initial focus countries (See Box 1).
- Central Emergency Response Fund (CERF) project: In October 2022 a framework for anticipatory action for drought was approved by the UN OCHA's CERF which defines early warning alerts for rainfall deficits. Work is in progress also on a framework for anticipation of flooding. WFP is one of OCHA's main partners in the CERF AA frameworks development.

Anticipatory action interest is rising in Chad, with frameworks developed for drought and flooding alerts, supported by multiple organizations including WFP. Developing triggers closely linked to the NMHS forecasting and observation systems allows swift and targeted responses. Installation of AWS through SOFF will enhance climate data collection and improve early warning alerts for better adaptation strategies, aiding effective resource allocation in regions prone to climate-related impacts.

WFP has a country office in Chad and will collaborate closely with the government and relevant organizations to facilitate SOFF work effectively. The coordinated efforts with other initiatives, such as the PILIER and CREWS projects, will ensure seamless integration and efficient implementation of activities. For example, the installation of the WMO Information System (WIS) in Chad is part of the CREWS project, while the PILIER project focuses on data management, forecasting enhancement, and center rehabilitation, including training for technicians.

Box 1. Green Climate Fund Technical Support Programme for the EW4ALL – Chad

A GCF-funded Technical Support Programme for Early Warnings for All (EW4All-TSP) is currently under development to stimulate and accelerate the design and funding of multiple regional delivery mechanisms and national projects over the next 2-3 years. These projects will deliver Multi-hazard Early Warning Systems, is based on the priority actions required to meet the targets of EW4All. The EW4All-TSP will be managed by the United Nations Development Programme on behalf of the EW4All Pillar Leads. It will support the goals of EW4All with initial financing from the Green Climate Fund (GCF) to help address immediate investment gaps in EWS in selected countries while establishing a support architecture for other countries in need to enhance their readiness for receiving technical and financial support from GCF, international

financing institutions, bilateral donors and private sector banks and other funding sources.

SOFF is an important partner to the programme, including in Chad, playing a key role to strengthen the data foundation of the countries, and providing co-financing.

Uganda

The implementation of the SOFF Investment Phase in Uganda is managed by the Islamic Development Bank (IsDB) as implementing entity, with the technical support of the Dutch Royal Netherlands Meteorological Institute (KNMI) as peer advisor.

The in-country presence of IsDB gives it an edge to engage extensively with relevant stakeholders and institutions. SOFF support will complement previous, ongoing, and planned operations of IsDB in Uganda, including the [Reverse Linkage Technical Cooperation](#) – a South-South Cooperation program on Early Warning Systems Capacity Development which will strengthen East Africa collaboration in this area.

The CREWS East Africa project is expected to provide support for human resource capacity development that could be leveraged alongside the support provided by SOFF for instance regarding WIS 2.

Furthermore, SOFF is an important pillar for the Water at the Heart of Climate Action project funded by the Dutch Government and implemented by a consortium of partners including the International Federation of Red Cross and Red Crescent Societies Network, UNDRR, WMO and SOFF. This project is an initiative to mitigate the impacts of water-related risks and disasters and increase the resilience of vulnerable communities in Ethiopia, Sudan, South Sudan, Uganda, and Rwanda. It aims to bridge the gap between meteorological expertise and on the ground humanitarian response through this collaboration. SOFF Investment Phase funding has been already approved for nearly all countries that are part of this initiative. In Sudan operations are on hold due to the current crisis and Uganda is proposed here for consideration.

2.3 Subregional gains and country balance

Chad and Uganda are both Least Developed Countries. As showed across the document, the strengthening of the national observing network in these countries is expected to bring significant benefits across North, Central and East Africa and in particular to a an overall fragile and conflict-afflicted area.

3. Implementation arrangements

The implementation arrangements of SOFF investments are defined by the designated Implementing Entity in collaboration with the beneficiary country following the process described in the SOFF Operational Manual and in line with the United Nations Multi-Partner Trust Fund's legal agreements.

3.1 Execution model

The Investment phase funding requests define the execution model and clearly outline the roles and responsibilities of the beneficiary country, the Implementing Entity, and any additional Executing Partner(s). Recognizing the diverse profile and needs of SOFF beneficiary countries, the choice of execution model is flexible and dependent on country demand and context. The table below provides a summary of the proposed execution model. The full description provided by the Implementing Entity can be found in Section 5 of the funding request.

Table 3. Summary of the execution models.

Country	Execution Model
Chad	<p>Hybrid</p> <p>WFP will oversee the entire process from execution and financial handling to evaluation, reporting, and project conclusion within agreed deadlines. A steering committee involving Chad National Meteorological Agency (ANAM), WFP, and the peer advisor Geosphere Austria will provide strategic and technical guidance. ANAM will act as the national Executing Entity, responsible for on-the-ground project execution and resource management, under a cooperation agreement with WFP outlining roles, responsibilities, and financial oversight. Procurement will mainly be handled by WFP using a joint procurement plan developed by ANAM and Geosphere. Geosphere will provide technical support and contribute to the supervision of project implementation and contribute in providing regular feedback to the SOFF secretariat on the evolution of the Investment phase activities.</p>
Uganda	<p>Hybrid</p> <p>IsDB will lead and coordinate the annual and quarterly planning, implementation, financial management, evaluation, reporting and closure of the activities under the project, working together with the beneficiary, the Uganda National Meteorological Authority (UNMA), to ensure the proper management and application of SOFF Grant Proceeds. Overall guidance on the execution of the project will be provided by a project steering committee, consisting of UNMA, IsDB, key stakeholders including KNMI in an advisory capacity. A project management unit (PMU) will be established with different technical task teams across UNMA's district meteorological service centers. UNMA will be responsible for supporting stakeholder engagement, preparing</p>

and submitting annual and quarterly work plans, requesting fund disbursements, overseeing station operation, maintenance, and calibration and handle data collection, analysis, and reporting. Specifications and Terms of Reference for goods and services drafted under the National Contribution Plan may be used as technical specifications for procurement and will be updated before the procurement process is initiated. The peer advisor will provide technical advisory services to support UNMA in implementing the National Contribution Plan and agreed activities for the Investment Phase.

3.2 Public-private partnerships

The NMHS of Chad and Uganda follow a fully public business model.

In Chad, there is limited availability of a relevant private sector in the field of meteorology, and the government has full control of the observational capacities/operation and services. At the initial stage of SOFF implementation, it is envisaged that the NMHS establishes a partnership or contractual cooperation with ASECNA which is in charge of regulation aviation and meteorology in west African countries. However, to understand the potential role of other private sectors for future sustainability, private sector partners will be invited to join stakeholder engagement workshops.

In Uganda, the NMHS has full control of the observational capacity and intends to maintain them. However private sector involvement will be explored related to maintenance services and contracts, and possibly calibration services.

3.3 Regional Implementation

SOFF promotes regional and sub-regional approaches to GBON implementation and encourages countries to explore opportunities to create economies of scale and optimize the design of the observing networks. The objective of SOFF regional engagement is to foster coordinated SOFF implementation, leveraging investments and climate finance opportunities beyond SOFF, and knowledge sharing and consultation on technical issues relevant to the respective regions. Regional benefits in the implementation of the Investment phase will also be pursued in collaboration with regional organizations. Table 5 outlines the opportunities for a regional approach in Chad and Uganda.

Table 4. Overview of regional implementation opportunities.

Country	Regional Implementation
Chad	Currently Chad is one of the first countries to be programmed for SOFF support among its neighbouring countries. Therefore, stations installed near the borders can also serve the neighbouring countries once their data are transmitted internationally.

	<p>Purchase of the same type of AWS equipment (ADCON) can be considered. A cooperative agreement with ASECNA which also operates in Cameroun, Niger and Central African Republic can be established which would facilitate regional maintenance, more effective spare parts management, and training.</p> <p>Chad is currently not affiliated with any Regional WIGOS centre. Technical support from SOFF peer advisor during SOFF Investment phase is important to improve the NMHS capacity on observations.</p>
Uganda	<p>SOFF support in Uganda will be linked with the IsDB Reverse Linkage Program, which aids peer-to-peer learning (on real-time and better forecasting and observatory systems) between countries in the global south, especially between countries in the East Africa sub-region.</p> <p>Potential regional collaboration includes regional trainings, instrument calibration, knowledge exchange through several existing regional agencies such as the WMO Regional Office for Africa or Regional WIGOS Center (EAC), the WMO Regional Climate Centre (RCC), Intergovernmental Authority on Development (IGAD) facilitation. Cooperation with the Regional Training Centre in Nairobi could also be established.</p> <p>Further opportunities for data sharing and network optimization with neighbouring countries, east African Community (EAC) engagement, CREWS East Africa, Lake Victoria communities, EW4All initiative will be considered.</p> <p>Uganda has been affiliated with the RWC East Africa Countries (EAC) hosted by Kenya and Tanzania, there is a need for continuous capacity development activities to ensure that relevant technical staff in NMHS are able to perform their functions, particularly the National Focal Point on WDQMS who will be responsible for coordinating any data performance issues.</p>

4. Risks

Section 7 of the SOFF Investment phase funding request requires partners to conduct a preliminary risk assessment for the implementation of the SOFF Investment phase. Table 5 shows the risks identified and their corresponding risk levels which in the case of Chad and Uganda are mostly rated as medium.

Table 5. Distribution of risks in the Investment phase Funding Requests of Chad and Uganda.

Risks	Chad Risk Level	Uganda Risk Level
Countries cannot make optimal use of data, including accessing or using improved forecasts products from the Global Producing Centers throughout the hydromet value chain	High	Low
Destruction or theft of SOFF-financed equipment and infrastructure	High	Low
After the conclusion of the Investment phase, GBON data are not collected or shared or are shared of insufficient quality	High	Medium
Slow implementation and delays in procurement, installation and capacity building activities	High	Medium
NMHS staff depart after being trained	High	Medium
SOFF-funded investments cause environmental or social impacts	Low	Low
Non-compliance with fiduciary and procurement standards in some SOFF activities	Medium	Medium

Overall, the presence of several risks rated as high is associated with the risks of implementation in a fragile-conflict afflicted country. The operational partners have an extensive track record of operating in the country and the implementation will be coordinated closely with several partner organizations. The SOFF Secretariat, in coordination with the Implementing Entities, will closely monitor the situation and alert the Steering Committee if issues impeding the successful SOFF implementation arise.

SOFF Investment phase activities include extensive capacity building for both human resources and institutions, such as trainings, staff salaries and regional workshops, alongside infrastructure investments. These activities address various risks, including issues related to data sharing, data quality, and data flow. Workshops with stakeholders, including Civil Society Organizations, help raise awareness and support for the importance of National Meteorological Services, while also serving as protective measures for stations and equipment, particularly in remote areas where risks of destruction or theft exist.

To tackle risks related to fiduciary and procurement standards compliance, the Implementing Entities will evaluate the financial management capacity of national Executing Entities and provide ongoing support for capacity development. Close

monitoring of project finances, annual audits, and establishment of internal controls will ensure compliance with anti-fraud and anti-corruption frameworks, along with training on procurement and fiduciary policies. Clear responsibilities will be outlined through Memorandum of Understandings or agreements among parties.

Environmental and Social risks will be addressed through the policies and procedures of the Implementing Entity. Adherence to environmental policies and implementation of site-specific mitigation plans informed by Environment and Social Impact Assessments will ensure responsible project execution.

Effective collaboration between the Implementing Entity, peer advisor, and beneficiary countries, along with recruitment of experienced procurement staff and frontloading of complex procurements, will address risks associated with slow implementation and investment activity delays.

To address the risk of countries not optimally utilizing data, SOFF is partnering with Global Producing Centres, such as the European Centre for Medium-Range Weather Forecasts (ECMWF), to provide free access to improved forecast data and graphical products. In addition, the Implementing Entity will further support capacity building in the context of the Anticipatory Action activities in the country.