

# SOFF Readiness Funding Request Template

Version 1.0

Systematic Observations Financing Facility

Weather and climate data for resilience



## **SOFF Readiness Funding Request**

The SOFF Readiness Funding Request template includes the following sections:

- 1. Basic information
- 2. SOFF Programming criteria
- 3. Readiness phase outputs, timeline and budget
- 4. Monitoring
- 5. Readiness Phase Risk Management Framework

The Assignment Terms of Reference are included in Annex 1.



## 1. Basic information

SOFF Beneficiary Country	South Sudan
Country Focal Point	Mojwok Ogawi Modo [Head of South Sudan
	Meteorological Department (SSMD)]
Peer advisor	Geosphere Austria
Peer advisor Focal Point	Giora Gershtein
Prospective Implementing Entity	African Development Bank(AFDB)
Prospective Implementing Entity Focal Point	James Kinyangi
Total budget USD	152698
Delivery timeframe	6 months – from April to September 2023
Date of approval	30 <sup>th</sup> March 2023
Signature SOFF Steering Com funding request)	mittee co-chairs (after Steering Committee approval of the



### 2. SOFF Programming criteria

#### Table 1: Programming criteria

Close the most significant data gaps Based on the WMO Global GBON Gap Analysis conducted in *Jan. 2022*, South Sudan suffers from a significant limitation in terms of observational network (Table 1). Therefore, strengthening in any way its network will ensure availability of reliable data and improve the quality of the numerical weather prediction products both at national level and contributing to better global models output.

WMO Member: South Sudan						
Surface area: 633.907 square km						
Station type	Target	Reporting	Gap (total)	Gap (improve)	Gap (new)	
GBON Surface Land stations (standard density)	16	0	16	2	14	
GBON Surface Land stations (high density)	64	0	64	2	62	
GBON Upper-Air stations over land	3	0	3	0	3	

Currently South Sudan has only two synoptic stations are operating in the country in Juba and Wau. Two observing stations out of five were destroyed during the crises in 2014 and 2016 and the third station closed due to lack of instruments and lack of technical staff required to operate them. While SSMD has 9 Automatic Weather Stations (AWSs) provided by FAO in 2009, they are not working due to lack spares and funds to pay to Zain telecommunication company for Zain connect Simcards. The observational network clearly requires both conventional manual and automatic weather stations. SSMD has no upper-air stations or weather radars.

Last, the maturity level of observational infrastructure at SSMD is assessed to be Level 1 or 2 due to the small number of working observation infrastructure.

Stations shall be accompanied by the corresponding training of staff for production of Early Warning information and Data management to ensure proper usage and exploitation of the observational data.

Lastly, it is to be noted that SSMD lacks offices for accommodation of staff and perform operations. Such a limitation in the basic infrastructure affects staff, equipment installation, database handling, EWS management and all related weather services activities.



Target easy fixes	Clearly any development towards an enhanced network towards GBON compliance would be beneficial. Sustainability is here key as demonstrated in the section above, where stations have been deployed but later on discontinued its operation due to multifactorial reasons. Through the potential fudning provided under the SOFF umbrella and with the agreement and endorsement of the corresponding implementing entity, a phased approach could be organized. The first targeted quick wins could be to ensure <b>sustained operability</b> <b>of the already existing infrastructure</b> . Namely, enhance the operability of the Juba and Wau synop stations to operate all day round and to suit the existing AWSs with appropriate telecommunication and infrastructure. This initial easy fix should be
	supported by a long-term sustainability plan in terms of manteinance and personnel for a minimum period with length agreed with the Implementing Entity. This easy fix could be accompanied by the preparation of maintenance plans, installation of telecommunication systems, software upgrades to convert to WMO standard formats and staff acquisition and training.
	In agreement with the implementing Entity, and based on the detailed activities hereby presented, specifically the GBON National Contribution Plan, the enhancement of the network capacity could be explored in a second phase through the deployment of a number of GBON Surface Land stations in order to deliver data into the global system per GBON regulations. The number of stations shall be derived from a resources and network planning with focus on maintenance and sustainability in collaboration with the Implementing Entity. It is however encouraged that installation of stations is based on project intervention areas and historical station networks destroyed during the civil crises.
	Similarly, together with the implementing entity an initial assessment on feasibility for Upper air stations deployment could be initiated.
	However, it will be critical to ensure that any deployment comes with the corresponding sustainability plan and long-term resources to prevent failure of the infrastructure or lack of capacity to maintain and sustain the activities. Therefore investments on manteinance, training, tecnological and telecommunications infrastructure and basic infrastructure for data management should be performed.
Maximize delivery capacity	Geosphere Austria, formerly known as the Austrian Meteorological and Geodynamics service, has performed the Hydromet Diagnosis in Kazakhsta, North Macedonia and Albania and has deployed EWS in



	Myanmar while AFDB has supported over the years many projects in many countries in the African regions. Hence, based on this practical experience, Geosphere Austria and AFDB can act as SOFF peer advisors and Implementing Entities with adequate capacity to deliver SOFF support efficiently and effectively in South Sudan. The AfDB has a country office in Sudan with excellent contacts with the Government and other organizations relevant to facilitating interactions for SOFF work and missions during the readiness and implementation phases. The peer advisor does not receive funding for this country from any other sources also the peer advisor institution has no additional project running in this country.
Create leverage	Discussions will be conducted with CREWS initiatives and other UN agencies as possible and facilitated and in collaboration with AFDB in order to capitalise and synergise on emerging activities. AfDB is preparing Bank investment of US \$ 5.2M to the Ministry of Agriculture, through ADRiFi which will enable capacity development of relevant government departments to enhance preparedness and management of climate disaster risks. The project will enable South Sudan to access the pan-African risk pool run by the African Risk Capacity (ARC) to insure itself against the risk of severe natural hazards, especially the recurrent flooding. Where possible the AfDB will provide linkages to the Horn of Africa Resilience Program that will deliver early warning services in South Sudan.
	In relation to the training activities, the potential liaison with the Tanzania Meteorological Agency in Dar al Salaam to negotiate the provision of training courses to fulfil the training needs of aeronautical meteorological personnel in SSMD could be explored.
Sub-regional gains	Opportunities to create economies of scale and optimize the design of the observing networks may be explored with neighbouring countries as they gradually access SOFF support. SSDMS will also establish a dialogue with CREWS and other initiatives. Sudan and the SSDMS is a member of the IGAD regional and benefits from access to weather and climate services from the ICPAC regional centre in Nairobi
Ensure country balance	South Sudan is classified as a Least Developed Country and a Fragile and Conflict-affected State.



## 3. Readiness phase outputs, timeline and budget

The Terms of Reference for the development of the SOFF Readiness phase outputs (see Annex I) provide more detailed information. They also summarize the roles and responsibilities, as stated in the <u>SOFF Operational Manual</u>, of the beneficiary country, the peer advisor, the prospective Implementing Entity and WMO Technical Authority for the delivery of the Readiness phase outputs.

The budget for the development of the SOFF Readiness phase outputs by the SOFF peer advisor shall be a lump-sum, fixed cost amount. It shall be calculated using a cost-recovery approach based on the peer advisors' standard cost recovery rates.

#### Table 2: outputs, timeline and budget

Outputc	Timeline					
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6 <sup>1</sup>
National GBON Gap Analysis						
GBON National Contribution Plan						
Country Hydromet Diagnostic (on demand)						
Total budget USD <sup>2</sup>			152	698		

<sup>&</sup>lt;sup>1</sup> It is expected that the assignment is completed within six months. If more time is required for exceptional circumstances, please add additional months to the table.

<sup>&</sup>lt;sup>2</sup> Eligible expenditures are limited to: Staff and consultants; Consultations, national technical workshops, and communications; Travel and transportation costs; Other incidental expenditures.



## 4. Monitoring

The beneficiary country and peer advisor shall notify the SOFF Secretariat on any delays that may impede the timely delivery of the Readiness phase outputs. If the assignment takes more than six months, the SOFF peer advisor shall submit semi-annual progress reports to the SOFF Secretariat (form to be provided by the SOFF Secretariat) stating the delivery status of the outputs.

The Readiness phase completion will be monitored by the peer advisor and the SOFF Secretariat using the following country-level Results Framework for the Readiness phase.

#### Table 3: Result framework

Outputs	Indicator	Target		
1. GBON National Gap Analysis	GBON gap established and reviewed (Y/N)	GBON gap analysed and reviewed by WMO Technical Authority		
2. GBON National Contribution Plan	GBON national contribution plan developed (Y/N)	GBON national contribution plan developed and reviewed by WMO Technical Authority		
	GBON National Contribution Plan includes gender considerations (Y/N)	GBON National Contribution Plan includes gender considerations		
3. Country Hydromet Diagnostic (on demand)	Country Hydromet Diagnostic developed (Y/N)	Country Hydromet Diagnostic developed		

### 5. Evaluation

An evaluation from both, the beneficiary country and the prospective Implementing Entity on the quality of support received by the peer advisor will be conducted at the end of the Readiness phase and the peer advisor's assignment (form to be provided upon completion of the Readiness phase by the SOFF Secretariat).



## 6. Readiness Phase Risk Management Framework

#### Table 3: Risk Management Framework

Risk category	Description	Probability	Mitigation action
<b>Contextual risks</b> Risks related to conflicts, safety and political insecurity jeopardizing the delivery of the Readiness phase outputs	South Sudan is fragile and in conflict therefore outbreak of a conflict is not unlikely. This may affect both accessibility of the local personnel and interlocutors as well as limit severely the on- site visit expected by the peer advisor.	High	While conflict cannot be mitigated per sé, the approach will be to have periodic (monthly interaction – via email and if possible via videoconference) to ensure as much as up to date information and exchange. In case of limited on-site acces, email and videoconference will then be method of choice and strong support by the implementing entity, who has more regional access, will be required.
	Pandemics, health thread or natural hazard threads may limit both the accessibility of the peer to the country and the national personnel availability.	Medium	In case of limited accessibility by the peer, mitigation actions as above will be implemented, with virtual or remote communication periodic actions. Should the personnel not be accessible, the peers will provide as much information in written as possible in order to facilitate



			information exchange when possible. Help and local support by the Implementing Entity will as well be sought.
<b>Institutional risks</b> Risks related to the beneficiary country's institutions participation in the Readiness phase activities	The engagement with the SSMD is active and it is expected to be so. Also engagement with SSMD customers and stakeholders for understanding their needs. However, due to the country situation, it may be difficult to have easy access to the stakeholders at the local level related to the activity.	Medium	Mitigation will be here in the form of seeking high level support by the SOFF secretariat to act as facilitators to ease and trigger engagement.
	Delays in the activities are possible in case discussions should take place at ministerial level to seek their political support in project implementation as a development support to South Sudan or also with a highly occupied Implementing Entity.	Medium	Mitigation will be here in the form of seeking high level support by the SOFF secretariat to act as facilitators to ease and trigger engagement.



	In addition, the risk of funds not used for the intended purposes may appear as well as potential limited accountability.	Low	Close interaction with the SOFF secretariat and the PR of the beneficiary country, as well as always liaised with the Implementing Entity will facilitate that the funding is used with the right purposes. In the National Contribution plan an accountability plan is to be developed to this aim.
	Limited personnel resources and national capacity to perform the activities or high turn- over.	High	Lack of personnel or capacitated staff can only be addressed by providing as much support as possible and provide written material as possible to facilitate handovers or warm start of new staff.
<b>Programmatic</b> <b>risks</b> Risks related to country ownership of the Readiness phase outputs	The main risk is that the activities continuously rely on external expertise and engagement therefore weaking the national governance and not strengthening the national capacity.	Medium	The main mitigation strategy is to bring always the component of sustainability in any of the activities and planning. Having a national focus on sustainability (both technical, governance and staff) is key for national ownership.



## Annex 1. Assignment Terms of Reference for the development of the SOFF Readiness phase outputs

#### 1. Purpose and scope

The purpose of this Assignment is to provide SOFF peer advisory services by Geosphere Austria to South Sudan to develop the outputs of the SOFF Readiness phase as described in section 3 of these Terms of Reference.

The provisions defined in the Terms of Reference are based on the <u>SOFF Operational Manual</u>, in particular Section 4.4 on Operational Partners and Section 4.5.1 on the Readiness phase.

#### 2. Roles and responsibilities

#### Beneficiary country National Meteorological and Hydrological Service

- Is responsible for implementing the activities of the Readiness phase with the support from the peer advisor and the prospective Implementing Entity.
- Prepares the Assignment Terms of Reference following the standard Terms of Reference provided by the SOFF Secretariat, in collaboration with the peer advisor and in coordination with the prospective Implementing Entity.
- Submits the funding request for the SOFF Readiness phase support using the standardized template provided by the SOFF Secretariat.
- Is responsible for collaborating with the peer advisor to provide all the necessary information and participate in and facilitate the national activities the peer advisor needs to conduct in order to develop the Readiness phase outputs.
- Confirms receipt of the peer advisors' report with the Readiness phase outputs and provides comments on the outputs as needed.

#### Peer advisor

- Is accountable to the beneficiary country.
- In dialogue with the beneficiary country, provides independent technical advice, analysis and recommendations to support the beneficiary country in implementing the activities of the Readiness phase.
- Develops the Readiness phase outputs and is responsible for their quality and timely delivery. Communicates regularly with the beneficiary country and the Implementing Entity.
- Engages with the civil society, including on the identification of stakeholders of relevance for GBON implementation.
- Submits the final report with the Readiness phase outputs to the country for comments and to the prospective Implementing Entity for feedback.
- Submits the final report including the beneficiary country's comments and the prospective Implementing Entity's feedback to the SOFF Secretariat.



• Notifies the SOFF Secretariat and the prospective Implementing Entity of any delays that may impede the timely delivery of the outputs, and for assignments for which the delivery takes more than six months submits a semi-annual progress report.

#### Implementing Entity

- Participates in the Readiness phase activities and collaborates with the beneficiary country and the peer advisor to ensure a common understanding of the Readiness phase outputs and that they address the technical needs for the design and implementation of the Investment phase.
- Contributes to the definition of the Terms of Reference and provides feedback on the outputs delivered by the peer advisor.
- Based on its experience in the beneficiary country, supports the work of the peer advisor, e.g. by sharing its knowledge and facilitating access to the network of relevant stakeholders.

#### WMO Technical Authority

- Provides basic technical support to the beneficiary country, peer advisor, and prospective Implementing Entity on GBON regulations.
- Is responsible for the technical screening of the draft GBON National Gap Analysis and the draft GBON National Contribution Plan against the GBON regulations.
- Is responsible for establishing and administering the pass-through mechanism for contracting and funding of the technical assistance provided by the peer advisors.

#### **SOFF Secretariat**

- Facilitates communication, coordination and collaboration between the beneficiary country, the peer advisor, the prospective Implementing Entity and WMO Technical Authority.
- Reviews the Readiness funding request, including the Terms of Reference, for compliance and consistency with the information requirements in the template and provides feedback as needed. Transmits the funding request to the SOFF Steering Committee for its decision.
- Confirms receipt of the peer advisors' report with the Readiness phase outputs.
- Organizes exchange of knowledge and experiences and captures lessons learned.

#### 3. Readiness phase outputs

The peer advisor should perform the following tasks following the technical guidance and using the templates provided in the <u>operational guidance documents</u> for each one of the outputs. A summary of the key steps and modules to be conducted for each output is presented below.



#### 3.1 GBON National Gap Analysis

The GBON National Gap Analysis defines the gap between the mandatory requirements of the GBON regulations and the existing country surface and upper-air networks. In other words, it serves as the basis for identifying the number of observing stations that need to be installed or rehabilitated to comply with the mandatory requirements of the GBON regulations.

To develop the GBON National Gap Analysis, the following steps should be followed

- **Step 1** Country information from the GBON Global Gap Analysis
- **Step 2** Analysis of existing GBON stations and their status against GBON requirements
- **Step 3** GBON Gap Analysis results
- **Step 4** Country endorsement for integration of the GBON National Gap Analysis into the GBON National Contribution Plan

#### 3.2 GBON National Contribution Plan

The GBON National Contribution Plan identifies the infrastructure, human and institutional capacity needed to achieve a progressive target toward GBON compliance, including the sustained operation and maintenance of the national GBON observing network.

To develop the GBON National Contribution Plan, the following modules should be completed

- **Module 1. National target toward GBON compliance:** Establishment of a progressive national target toward GBON compliance
- **Module 2. GBON business model and institutional development**: public-private business model as appropriate; partnerships, institutional and financial arrangements needed to operate and maintain the observing network
- **Module 3. GBON infrastructure development**: Appropriate investments needed to increase or improve the observing network and its Information and Communication Technology (ICT) infrastructure
- **Module 4. GBON human capacity development**: Human technical and managerial capacities required to operate and maintain the observing network
- **Module 5. Risk Management:** Operational risks of the observing network and required mitigation measures
- **Module 6. Transition to SOFF Investment phase:** Support the beneficiary country and the Implementing Entity in preparing the Investment phase funding request (template provided by the SOFF Secretariat).

#### **3.3 Country Hydromet Diagnostics**

The Country Hydromet Diagnostic (CHD) complements the GBON National Gap Analysis and the GBON National Contribution Plan. It is a standardized, integrated and operational tool and approach for diagnosing National Meteorological Services across the meteorological value chain, their operating environment, and their contribution to high-quality weather,



climate, hydrological and environmental information services and warnings. Its assessment serves as a basis for investments beyond SOFF, across the whole value chain, by the SOFF Implementing Entity and other development partners.

The peer advisor should **assess the 10 CHD elements** with its respective indicators following the matrix provided in the CHD guidance document.

- Governance and institutional setting
- Effective partnerships to improve service delivery
- Observational infrastructure
- Data and product management and sharing policies
- Numerical model and forecasting tool application
- Warning and advisory services
- Contribution to climate services
- Contribution to hydrological services
- Product dissemination and outreach
- Use and national value of products and services

To develop the Country Hydromet Diagnostic, the following **steps** should be completed.

- Stage 1 Information gathering. As input, the WMO Monitoring Evaluation Risk and Performance unit will provide available country data structured along the CHD elements and their indicators (performed remotely)
- Stage 2 Validation and analysis (performed in-country if feasible)
- Stage 3 Closure

#### 4. Delivery process

The peer advisor in collaboration with the beneficiary country and in coordination with the prospective Implementing Entity should establish the specific activities and consultations needed to complete the outputs. The development of the outputs should include the following:

- Collaboration arrangements between the beneficiary country and the peer advisor, including at least one country visit, unless the country context does not allow it. It is expected to have two one-week visits to:
  - Perform the GBON gap analysis
  - Perform the interview/exploratory activities to gather the information for the CHD. This will include interaction with the PR and staff members, potential visists to station locations and exchange with stakeholders.
  - $\circ$   $\;$  Perform a review and agreement of the CHD final version.
  - Have face to face discussions and exchange for the preparation of the National Contribution Plan.
- Coordination arrangements with the prospective Implementing Entity. This activity envisages:



- 1 Initial Kick-off meeting with the implementing entity, peer advisor and beneficiary country.
- o 2 workshops if possible face to face during the aforementioned visits.
- Agreement meeting (virtual) to finalise and formally agree on the National Contribution Plan.
- In-person or virtual consultation meetings with relevant national and international stakeholders and partners.
  - Within the on-site visits, a set of face to face discussions with national stakeholders will take place. This aims at exploring both sustainability and usability of data and products to facilitate considerations of the complete value chain in all the SOFF activities.
  - A virtual workshop is expected at the end of the 6 month period together with both SSDMS, implementing entity and stakeholder, national and representatives of major international organisations (as possible)
- The activities will seek the support from the regional office of WMO.
- Peer advisor delivery team and focal point. The activities include the following team members:
  - o Giora Gershtein Focal Point
  - Delia Arnolds SOFF support
  - On-demand technical expertise based on the initial assessment. The profile will focus on observational aspects including maintenance and data provision.
- Timeline for the development of the outputs. The outline follows that of the financial proposal:
  - Initial visit second half of April
  - Finalisation of the GBON Gap Analysis 30 May 2023
  - Finalisation of the CHD 30 July 2023
  - Second visit first half of August.
  - $\circ$  Finalisation of the National Contribution Plan 30 September



#### **Reporting and completion**

**Reporting.** For assignments for which the delivery of advisory services takes more than six months, the SOFF peer advisor shall submit a semi-annual progress report to the SOFF Secretariat (form to be provided by the SOFF Secretariat).

#### Completion

- **Step 1.** The peer advisor submits the draft GBON National Gap Analysis and the GBON National Contribution Plan reports to WMO Technical Authority and, as applicable, the draft Country Hydromet Diagnostics to the Monitoring Evaluation Risk and Performance unit of the WMO Secretariat. The draft reports have to follow the templates provided in the SOFF operational guidance documents.
- **Step 2.** WMO Technical Authority screens the draft GBON National Gap Analysis and the draft GBON National Contribution Plan to ensure consistency with the GBON regulations. The WMO Monitoring Evaluation Risk and Performance unit screens the draft Country Hydromet Diagnostics and provides feedback for revisions as needed.
- **Step 3.** The peer advisor submits the report with the Readiness phase outputs for beneficiary country and prospective Implementing Entity feedback.
- **Step 4.** The peer advisor finalizes the report for confirmation of receipt by the beneficiary country and, as needed, beneficiary country comments. Following beneficiary country receipt of the report, the peer advisor submits the report, including beneficiary country's comments and the prospective Implementing Entity's feedback, to the SOFF Secretariat.
- **Step 5.** The SOFF Secretariat confirms the satisfactory receipt of the report and informs the country and the prospective Implementing Entity accordingly. The SOFF Secretariat authorizes WMO to proceed with the release of the final payment, and informs the SOFF Steering Committee of the completion of the SOFF readiness phase.



#### 5. Signatures

By signing this document, the beneficiary country, peer advisor and the prospective Implementing Entity agree with the provisions stated in this Terms of Reference.

