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# SOFF Readiness Funding Request for Malawi

Version 1.0

17 January 2023

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Systematic Observations  
Financing Facility

**Weather  
and climate  
data for  
resilience**



## SOFF Readiness Funding Request

*The funding request should be prepared by the SOFF beneficiary country in collaboration with the SOFF peer advisor in coordination with the prospective SOFF Implementing Entity. In case of questions on how to complete this template, please contact the SOFF Secretariat at: [soffsecretariat@wmo.int](mailto:soffsecretariat@wmo.int).*

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

<b>SOFF Beneficiary Country</b>	<i>Malawi</i>
<b>Country Focal Point</b>	<i>[Mrs. Lucy M. Mtilatila, Director, PR to WMO]</i>
<b>Peer advisor</b>	<i>Norwegian Meteorological institute (MET Norway)</i>
<b>Peer advisor Focal Point</b>	<i>Kristine Gjesdal, email: kristineg@met.no, phone 004798021555</i>
<b>Prospective Implementing Entity</b>	<i>UNDP Malawi</i>
<b>Prospective Implementing Entity Focal Point</b>	<i>.....</i>
<b>Total budget USD</b>	<i>USD 186 615.00</i>
<b>Delivery timeframe</b>	<i>6 Months</i>
<b>Date of approval</b>	<i>....</i>
<b>Signature SOFF Steering Committee co-chairs (after Steering Committee approval of the funding request)</b>	

## 2. SOFF Programming criteria

Please provide below an initial short description of the application of the [SOFF programming criteria](#) in the country.

Table 1: Programming criteria

<p><b>Close the most significant data gaps</b></p>	<p>Based on its location and varying climatic zones, Malawi plans for 15 GBON surface stations and 2 upper air stations. Malawi is located between latitudes 9.38S and 17.13S, and longitudes 32.6E and 35.9E. Malawi has a network of automated weather stations that are at varying degrees of operations, and can be easily added to the GBON. Malawi has previously operated 2 upper air stations. These are currently not operational but would also be revived and added to the GBON. All AWS in Malawi report at least hourly. There are 21 AWS installed at synoptic stations that do manual synoptic observations and report at Synoptic hours. Data transmission for AWSs is done using mobile data communication and is automated while communication for manual stations relies on phone calls and SMS or social media such as Whatsapp. Manual observations are exchanged regionally to GTS using a Netsys message handling system. Common gaps faced in observation and transmission include shortage of meteorological observers which affects the frequency and timeliness of manual observations, obsolete and irreparable conventional instruments which limits the weather parameters being observed and recorded. For AWSs the gap is mainly on the duration of operation and frequency of data communication which is due to limited maintenance capacity in terms of manpower, mobility and spares.</p>
<p><b>Target easy fixes</b></p>	<p>Since Malawi has a network of AWSs which can be easily added to the GBON, there is a need to focus on the (i) regular maintenance, (ii) availability of spares and (iii) human capacity development. For upper air observations there is a need to revive operations through the (i) provision of tools and consumable accessories, (ii) in-depth training in upper air observations since those that had the expertise have since left the service. Capacity building for sustaining the operations will also be important.</p>
<p><b>Maximize delivery capacity</b></p>	<p>Malawi's NHMS, DCCMS has a project that it is implementing with Met-Norway, the Peer Advisor. DCCMS has also been continuously involved in UNDP-Malawi coordinated programs and projects since 2010 and UNDP-Malawi has contributed significantly to the growth of climate services as well as having a good understanding of DCCMS strengths and challenges. DCCMS is most likely to benefit from the partnership.</p>
<p><b>Create leverage</b></p>	<p>In the case of Malawi, monitoring systems have been acquired through other interventions such as the Green Climate Fund and</p>

	<i>UNDP coordinated project. These could easily feed into the GBON and enable easy SOFF implementation. At the same time there has been a pilot project on WIS2Box for Malawi with the WMO which is also interested in smooth operation of weather monitoring systems in Malawi.</i>
<b>Sub-regional gains</b>	<i>There are on-going efforts in the Southern Africa Development Community (SADC) to enhance the early warning and coordination among countries' NHMS. Through SADC it is possible for coordinated sub-regional plans for procurement and capacity building for maintenance.</i>
<b>Ensure country balance</b>	<i>Malawi is one of the Least Developed Countries in the sub-Saharan Africa and has frequently experienced negative climate change impacts through extreme weather events</i>

### 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 [SOFF Operational Manual](#), 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.

*Please indicate the expected time required to deliver the Readiness outputs and the total budget. See example below.*

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

Outputs	Timeline					
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6 <sup>1</sup>
<b>National GBON Gap Analysis</b>						
<b>GBON National Contribution Plan</b>						

<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.



<b>Country Hydromet Diagnostic (on demand)</b>						
<b>Total budget USD<sup>2</sup></b>	<b>186 615,00 USD</b>					

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<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
<b>1. GBON National Gap Analysis</b>	GBON gap established and reviewed (Y/N)	GBON gap analysed and reviewed by WMO Technical Authority
<b>2. GBON National Contribution Plan</b>	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
<b>3. Country Hydromet Diagnostic (on demand)</b>	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

*Please provide a brief description of the contextual, institutional, and programmatic risks that might hinder the effective delivery of the Readiness phase outputs.*

**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	<b>Malawi is currently politically stable but economically struggling. Budgeting may be affected by changing prices of commodities</b>	Low	<b>Budget in US\$ and use the expertise of the Implementing Entity in managing funds</b>
<b>Institutional risks</b> Risks related to the beneficiary country's institutions participation in the Readiness phase activities	<b>DCCMS as the implementing institution in Malawi faces challenge in mobility (old fleet of vehicles)</b>	Medium	<b>Plan for the hiring of vehicles/ acquisition of new vehicles for the Readiness activities</b>
<b>Programmatic risks</b> Risks related to country ownership of the Readiness phase outputs	<b>Limited awareness among the communities on the benefits of climate services and the need to safe-guard monitoring systems</b>	Low	<b>Plan for awareness raising in all areas selected, as well as institutions to work with</b>



## 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 MET Norway to Malawi 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 [SOFF Operational Manual](#), 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 [operational guidance documents](#) 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 two country visits, unless the country context does not allow it.
  - MET Norway plan to visit DCCMS, Malawi during April 2023 for working with the National Gap Analysis and outline the GBON National Contribution Plan
  - MET Norway plan for a workshop in Blantyre during October 2023 to finalise the Country Hydromet Diagnostic
  - In between we will schedule monthly digital meetings to ensure good progress.
- Coordination arrangements with the prospective Implementing Entity
  - MET Norway will arrange for monthly digital status/information meetings with UNDP. (Or more frequent if necessary)
- In-person or virtual consultation meetings with relevant national and international stakeholders and partners  
MET Norway will discuss with NORAD how to best integrate SOFF with ongoing projects.
- Delivery partners that support the peer advisor in the delivery of the outputs, as applicable
  - NORAD
- Peer advisor delivery team and focal point  
Focal point: Kristine Gjesdal, [kristineg@met.no](mailto:kristineg@met.no)  
Team: Elinah Khasandi Kuya [elinahkk@met.no](mailto:elinahkk@met.no),
- Timeline for the development of the outputs  
15.06.2023 National GBON Gap Analysis delivery  
15.08.2023 GBON National Contribution Plan delivery  
25.10.2023 Country Hydromet Diagnostic delivery

## 5. 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).

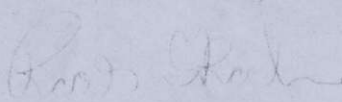
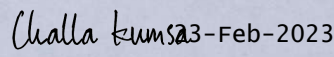
### Completion

- **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.



## 6. 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.

<b>Beneficiary country</b>	MALAWI, BLANTYRE DEPARTMENT OF CLIMATE CHANGE & METEOROLOGICAL SERVICES LUCY MTHATILA, DIRECTOR PR OF MALAWI WITH WMO
<b>Peer advisor</b>	Oslo, 23.02.2023  Roar Skålin, Director General, MET Norway PR of Norway with WMO
<b>Prospective Implementing Entity</b>	Challa Kumsa UNDP Headquarters
DocuSigned by:  Challa Kumsa 3-Feb-2023 55CE989E6A55446... DRR	