
SOFF Readiness Funding Request Template

Version 1.0

17 January 2023

Systematic Observations
Financing Facility

**Weather
and climate
data for
resilience**



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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.

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	State of Grenada
Country Focal Point	Cristina Joseph, Chief Executive Office at Grenada Airports Authority
Peer advisor	AEMET, Spain
Peer advisor Focal Point	Fernando Belda
Prospective Implementing Entity	TBC
Prospective Implementing Entity Focal Point	TBC
Total budget USD	120,000
Delivery timeframe	From April 20 th to October 20th
Date of approval	
Signature SOFF Steering Committee co-chairs (after Steering Committee approval of the funding request)	



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>Close the most significant data gaps</p>	<p><i>Based on the WMO Global GBON Gap Analysis for the country, please provide a brief summary of the initial indications regarding the GBON gap in the country.</i></p> <p><i>A remote assessment on the current meteorological infrastructures of the State of Grenada has been undertaken from January 15th to February 16th with the purpose of making a first assessment regarding the capabilities of observing systems and associate communication networks related to meteorological data sharing. We had three remote connections between Peer advisor and GAA team lead by Cécil Mitchell, Manager of Meteorology in GAA.</i></p> <p><i>We have used two main sources, firstly, information taken from www.wdqms.int, OSCAR database and a document deliver by GAA team with relevant information about automatic weather stations (AWS) installed mainly under the Disaster Vulnerability Reduction Project (DVRP).</i></p> <p><i>1.- Surface data gap:</i></p> <p><i>Existing 19 AWS with 10 minutes recording and hourly transmission using GOES satellite.</i></p> <p><i>From OSCAR database we found two operational stations registered.</i></p> <p><i>1.- Maurice Bishop International Airport-MBIA (WSI 0-20000-0-78958) partly operational as RBON and pending as GBON affiliation, supervised by BCT.</i></p> <p><i>2.- WSI 0-22000-100-4101756 affiliated by E-SURFMAR (EUMETNET program).</i></p> <p><i>Significant data gap From WDQMS, GBON analysis of MBIA shows an availability less than 30 %. Double-check onsite is needed.</i></p> <p><i>2.- Upper-air data gap.</i></p> <p><i>Not available. It is recommended to install on new equipment although is less than 500 km from Barbados.</i></p>
<p>Target easy fixes</p>	<p><i>Based on the WMO Global GBON Gap Analysis, please provide initial indications on the opportunities for rehabilitation and improvement of potential GBON stations in the country.</i></p>



	<p><i>Milestones:</i></p> <p>1.- Upgraded MBIA to ensure GBON requirement. First assessment has been done using wdqms.wmo.int, it shows an availability less than 30%. Onsite analysis also needs to be made to analyze the GBON compliance.</p> <p>2.- Promote Marli or Kublal as potential GBON. Although both locations are less than 100km, It is recommended to have two options as GBON stations in the Island.</p> <p>3.- New upper-air station in MBIA. Recommended although is less than 500 km from Barbados. Education and Training plan would be established as well as Maintenance Plan.</p>
<p>Maximize delivery capacity</p>	<p><i>Outline the capacity of the peer advisor and the prospective Implementing Entity to deliver SOFF support efficiently and effectively in the country. State any ongoing or planned activities in the country for which the peer advisor receives funding from other sources.</i></p> <p>Full time employed from peer adviser country available to visit the owner country. No additional funds have been received by the peer advisor. AEMET has long experience in management AWS networks, calibration, data transmission and maintenance.</p> <p>AEMET has long experience supporting countries in Central and South America. Projects as the deployment of lightning detection network sponsored by AECID (Spanish Agency for International Development Cooperation) or the Regionalized climate change scenarios for Central America sponsored by FIIAPP (International and Ibero-American Foundation for Administration and Public Policies). Under CIMHET, AEMET has organized, or has led training courses related to Calibration and Maintenance of AWS, Satellite applications, communications, forecast, NWP and GHG Monitoring.</p> <p>AEMET will keep the leadership in Iberoamerican countries for training courses under the Regional Training Center (RTC). The main strategic topics are, Management and leadership, GHG Monitoring, NWP use for Tropical Area, Satellite Meteorology, Climate Change, Climate Services, Meteorological Radar and applications, Meteorology and Health.</p>
<p>Create leverage</p>	<p><i>Provide initial indications on opportunities for complementarity of SOFF with previous, ongoing and planned operations by the SOFF Implementing Entities and other funds.</i></p>



	<p><i>The Grenada Met Service (GMS) has benefited from the Weather and Climate Ready Nations (WCRNs) initiative which is associated with the Strengthening Disaster and Climate Resilience (SDCR) Project funded through USAID and collaboration with the Caribbean Institute for Meteorology and Hydrology (CIMH). The GMS received a donation of the Geonet Cast Satellite, two VHF radios and valuable training. The GMS also expanded the AWS network under the Disaster Vulnerability Reduction Project (DVRP) which afforded specialized training to the instrument technician. This allowed for enhanced data collection and analysis that is representative of the Tri Island State of Grenada.</i></p> <p><i>Spain as member of CIMHET could ensure the continuity of the investment done and improve the observation capabilities of The State of Grenada with several training courses under the umbrella of CIMHET and support to maintain the infrastructure. It is expected to have complementary operations with DVRP.</i></p>
<p>Sub-regional gains</p>	<p><i>Provide initial indications on opportunities to create economies of scale and optimize the design of the observing networks through multi-country/sub-regional SOFF implementation e.g. existing sub-regional cooperation or opportunities for sub-regional procurement and operations and maintenance.</i></p> <p><i>Developing new capabilities on observation network according GBON standards will offer the opportunity of improving technical capacities and enhance the capacity building in neighboring countries.</i></p> <p><i>Additional opportunities on education and training on maintenance, calibration and communications.</i></p> <p><i>Opportunities on public-private engagement increasing the value of meteorological industry at sub-regional level.</i></p> <p><i>As member of CMO, this investment will optimize the design of the observations network and increase the stations in GBON for RA IV.</i></p>
<p>Ensure country balance</p>	<p><i>Indicate if the country is a Small Island Developing State, a Least Developed Country, an ODA-recipient country, a Fragile and Conflict-affected State.</i></p> <p>Yes. SIDS (sustainabledevelopment.un.org)</p>

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					
	May	June	July	August	September	October
National GBON Gap Analysis						
GBON National Contribution Plan						
Country Hydromet Diagnostic (on demand)						
Total budget USD¹	120,000					

¹ 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

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
Contextual risks Risks related to conflicts, safety and political insecurity jeopardizing the delivery of the Readiness phase outputs	The island is politically stable and there is no evidence of instability of unrest	Low	In – situ analyses planned in close coordination with GAA.
Institutional risks Risks related to the beneficiary country's institutions participation in the Readiness phase activities	Lack of cooperation between partners and stakeholders.	Low	Leadership of GAA: GAA must lead strategic alliance with local and regional institutions. Key partners are already defined.
Programmatic risks Risks related to country ownership of the Readiness phase outputs	Lack of commitment of readiness phase outputs by stakeholders	Low	Establishment of protocols and methodology to share outputs



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 AEMET to State of Grenada 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 one country visit, unless the country context does not allow it
 1. Kick off virtual meeting between GAA-AEMET.
 - a. Information about the status of the observing and relevant communication networks of the NWS. Set up of available documents and reports about actual AWS and upper air stations. Verification of gaps.
 - b. Planning for first country mission: tasks and dates.
 2. First country mission. Completion of steps 1 and 2
 - a. Review 1.a via combination of interviews, with NMS staff, site visits and analysis of online data flows from www.wdqms.int
 - b. Meeting with stakeholders-GAA-AEMET



3. Periodic videoconferences between GAA-AEMET
4. Progress report virtual meeting between AEMET-GAA in August/September
5. Second country mission: Final validation national workshop with participation of peer advisor experts and stakeholders. August-September

- Coordination arrangements with the prospective Implementing Entity

State of Grenada and AEMET and World Bank will have all agreed to hold regular coordination virtual meetings for information sharing

- In-person or virtual consultation meetings with relevant national and international stakeholders and partners

Regular in-person or virtual consultation meetings with relevant national and international stakeholders and partners will be planned and organized by State of Grenada through GAA in collaboration with the peer advisor and the prospective Implementing Entity. Point 2 to 5.

- Delivery partners that support the peer advisor in the delivery of the outputs, as applicable
SOFF Secretariat, GAA and prospective implementing entity.

- Peer advisor delivery team and focal point

AEMET, Spain. Focal point: Fernando Belda

- Timeline for the development of the outputs

May 2023-October 2023

Steps 1 and 2 . July. Steps 3-4. October



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

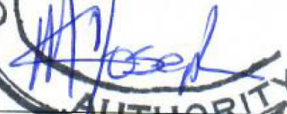

- **Step 1.** The peer advisor submits the draft GBON National Gap Analysis and the GBON National Contribution Plan reports to WMO Technical Authority and, as applicable, the draft Country Hydromet Diagnostics to the Monitoring Evaluation Risk and Performance unit of the WMO Secretariat. The draft reports 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.

<p>Beneficiary country State of Grenada</p>  	<p><i>CRISTINA</i> <i>General Manager (AG)</i> <i>Grenada Airports Authority</i></p>
<p>Peer advisor</p> <p>AEMET SPAIN (electronic Signature) <u>Fernando Belda. Acting Director for Production and Infrastructure.</u></p> <p><u>Miguel Ángel López. PR of Spain</u></p>	
<p>Prospective Implementing Entity</p>	

