SOFF
Systematic Observations Financing Facility

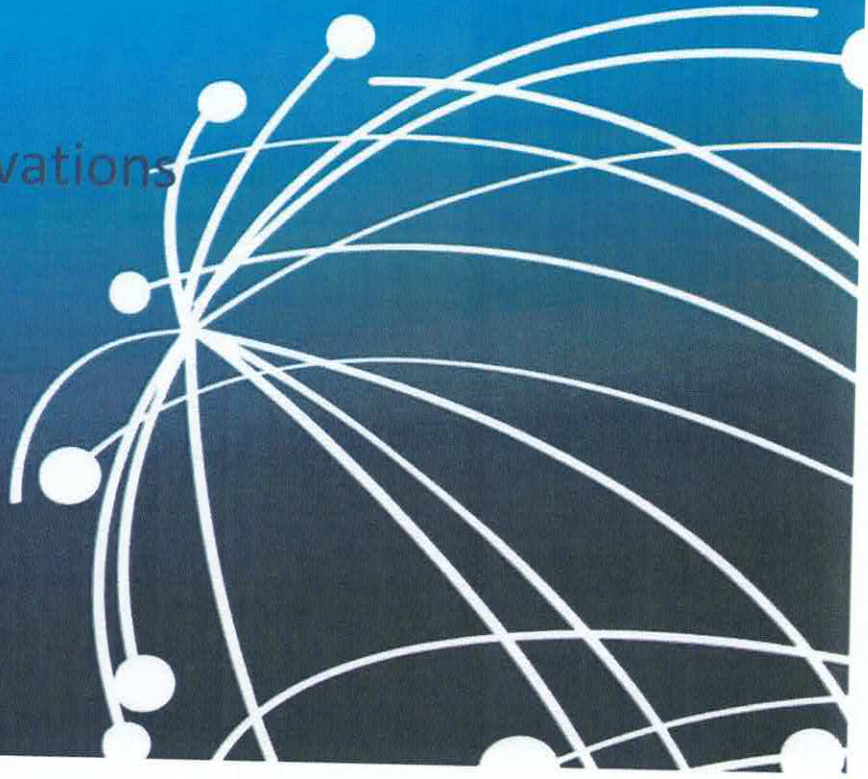
SOFF Readiness Funding Request Template

Version 1.0

17 January 2023

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.

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	Tuvalu
Country Focal Point	Mr Tauala Katea, Director, Tuvalu Meteorological Service
Peer advisor	Meteorological Service of New Zealand Ltd (MetService) National Institute of Water and Atmospheric Research (NIWA)
Peer advisor Focal Point	Mr James Lunny, WMO Manager, MetService
Prospective Implementing Entity	UNEP
Prospective Implementing Entity Focal Point	Jochem Zoetelief, Senior Programme Officer, UNEP
Total budget USD	39,800
Delivery timeframe	May – June 2023
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

Close the most significant data gaps	Funafuti (0-20000-0-91643) undertakes one upper air sounding per day, rather than the two specified under GBON. The same station also provides eight manual observations in SYNOP code each day. Three land surface stations; Nanumea (0-20000-0-91631), Nui (0-20000-0-91636) and Niulakita (0-20000-0-91648) provide four manual observations in SYNOP code each day at the main synoptic hours.
Target easy fixes	Introduce a second daily radiosonde sounding at Funafuti. Supplement the surface manual observing programme at Funafuti with automated hourly reports produced in BUFR code. Implement hourly reporting of BUFR surface weather observations from eight new climate AWS stations being installed in the country under the UNEP Five Atolls project.
Maximize delivery capacity	*Outline the capacity of the peer advisor and the prospective Implementing Entity to deliver SOFF support efficiently and effectively in the country.* *State funding received by the peer advisor from other sources for ongoing activities the country.* New Zealand is already very active in the country through its two agencies MetService and NIWA. Funding available to work within Tuvalu is normally tied to specific projects. MetService provides engineering support (technical consultancy and in-country maintenance) to Tuvalu's upper air site through an MOU between MetService and the Met Office UK; administered by Secretariat of the Pacific Regional Environment Programme (SPREP). Funding is on a 50:50 cost share basis between MetService and the

	Met Office UK. Activity is reported annually to the Voluntary Cooperation Programme (VCP) of WMO. NIWA have been supporting Tuvalu with the set-up and training of the product generation systems linked to Tuvalu's climate database under the Climate and Ocean Support Programme for the Pacific (COSPPac). We are also supporting the development of satellite rainfall monitoring product development for all of the Pacific including Tuvalu to assist particularly with drought early warning for outer island locations with no or limited rainfall monitoring. This is conducted under the NIWA funded Island Climate Update programme and is reported annually to the Voluntary Cooperation Programme (VCP) of WMO. The implementing entity is also very active in Tuvalu. UNEP is currently working on implementing a GCF-funded 5-year programme, "Enhancing Climate Information and Knowledge Services for resilience in 5 island countries of the Pacific Ocean" (FP147) where strengthening observational capacity is one of the key components. Tuvalu is one of the five beneficiary countries of this programme, and the SOFF will complement the ongoing activities and ensure the long-term sustainability of the programme. NIWA is also a regional technical partner in this programme with specific responsibility for surface monitoring support to the five countries, and therefore, UNEP believes that the SOFF, by engaging both UNEP as the Implementing Entity and New Zealand as the peer advisor, will be perfectly aligned with the existing and ongoing programme. The UNEP Programme Management Unit (PMU) for the above programme is co-located with SPREP and the Pacific Climate Change Centre (PCCC) in Samoa. The PCCC is supporting capacity building within national meteorological services through delivery of the training mode of the WMO Pacific Regional Climate Centre. The regional presence of UNEP in the Pacific Islands region will be useful in the implementation of SOFF activities in the region. UNEP is also co-leading Pillar 2 of Early Warnings for All Initiative (Observations & Forecasting).
Create leverage	*Provide initial indications on opportunities for complementarity of SOFF with previous, ongoing and planned operations by the SOFF Implementing Entities and other funds*

	UNEP is currently working on strengthening observational capacity in Tuvalu within a GCF-funded 5-year programme "Enhancing Climate Information and Knowledge Services for resilience in 5 island countries of the Pacific Ocean". The GCF-funded programme will expand the surface-based observation network in Tuvalu in compliance with the expected GBON requirements. NIWA is the principal technical implementing partner supporting Tuvalu with these activities with one AWOS planned for installation in Funafuti and eight further AWS planned for installation in Tuvalu's eight outer islands. All stations will be GBON compliant and able to report hourly data in near real-time. All observational data from the new AWS installations will be integrated into the Tuvalu Meteorological Service climate data base (CliDE) to support climate resilience and advisory services in Tuvalu. SOFF Readiness support would enable validation of GBON network requirements. The SOFF investment phase funding will complement the ongoing activities by investing in the upper-air observation network, which is not covered under the GCF project, enabling further strengthening of observational capacity in Tuvalu. The SOFF Compliance phase will also support long-term sustainability of the GCF programme outcomes. The UK Met Office has offered to provide in-kind contribution for the gap analysis through the VCP, under the existing Pacific Fund MOU (MetService/Met Office UK/SPREP).
Sub-regional gains	*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* SOFF implementation in the Pacific Islands, through the first batch of countries (five), including Tuvalu, and subsequent country batches, will lead to a standardized and coordinated GBON within the region. This is necessary to optimize the benefits of SOFF.
Ensure country balance	*Indicate if the country is a Small Island Developing State, a Least Developed Country, an ODA-recipient country, a Fragile and Conflict-affected State* Tuvalu is a Small Island Developing State (SIDS) and a Least Developed Country (LDC). Tuvalu also qualifies for Official Development Assistance (ODA).

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[1]
National GBON Gap Analysis		**May 2023**				
GBON National Contribution Plan			**June 2023**			
Country Hydromet Diagnostic (on demand)			**June 2023**			
Total budget USD[2]	**39,800**					

[1] 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.

[2] 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	Re-escalation of COVID pandemic closing borders	Low	Delay mission; Make use of online platforms
Institutional risks Risks related to the beneficiary country's institutions participation in the Readiness phase activities	1. Extremely small Meteorological Service with limited staff who are thinly spread across many tasks and responsibilities. Logistical challenges to engage in-person with remote communities in planning activities due to vast distances between islands and very high air and shipping costs.	1 High 2 High	1. Support staff and provide training as needed to develop and collate station information and realistic plans for sustainability and maintenance. Strengthen communication infrastructure and community training to improve engagement in planning activities and programme responsibilities.

Programmatic risks Risks related to country ownership of the Readiness phase outputs	Limited opportunities for all interested stakeholders to engage in the Readiness process	Low	Tuvalu is a relatively small country; Readiness process will be as inclusive as possible, and relatively easy to undertake. New Zealand will support, to the extent possible, Tuvalu with their responsibilities as the SOFF beneficiary country.

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 New Zealand to Tuvalu 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: *MetService and NIWA joint mission to Tuvalu (2 experts, one from each organisation). Only one country visit expected to be required.*
- Coordination arrangements with the prospective Implementing Entity: *coordination with UNEP via email and online meetings.*
- In-person or virtual consultation meetings with relevant national and international stakeholders and partners: *Coordination via email and online meetings with Met Office UK, SPREP, equipment providers.*
- Delivery partners that support the peer advisor in the delivery of the outputs, as applicable: *TBC*
- Peer advisor delivery team and focal point: *MetService and NIWA; James Lunny (MetService)*

- Timeline for the development of the outputs: *In-country visit May 2023 (post tropical cyclone season). Submission of GBON National Gap Analysis, GBON National Contribution Plan and Country Hydromet Diagnostics expected June 2023. Write-up time: 1 week (MetService) and 1 week (NIWA).*

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).

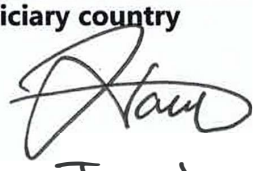
Completion

- **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.

Beneficiary country



Tavala Katea (PR to Tuvalu with WMO)

Peer advisor

Mr Norm Henry, for the Permanent Representative of New Zealand with WMO

Prospective Implementing Entity (UNEP)

Jochem Zoetelief, 23.02.2023