

Thirteenth Steering Committee

18 February 2026

Draft SOFF Compliance Phase Framework

INF 13.5

Systematic Observations
Financing Facility

**Weather
and climate
data for
resilience**



Purpose of this Document

This document presents the draft framework that guides the implementation of the SOFF Compliance Phase. While the general operational provisions are outlined in the SOFF Operational Manual, the SOFF Compliance Phase framework specifies the execution, implementation arrangements and responsibilities, as well as financial modalities. The Draft document reflects multiple feedback received from SOFF program countries, Implementing Entities, peer advisors, Advisory Board and Steering Committee. It is expected to be finalized based on final consultations and be presented to the 14th Steering Committee meeting for endorsement. The framework is subject to revision and updating as required based on lessons learned from early implementation of the Compliance Phase.

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Draft SOFF Compliance Phase Framework

1. Introduction

The Compliance Phase of the Systematic Observations Financing Facility (SOFF) is a distinctive and innovative feature of the fund, created to ensure long-term sustainability of investments. Experience has shown that without sustained financial and technical support for the operation and maintenance of observation networks, in countries with limited technical and financial resources systems often fail, data is not shared internationally, and investments fail to achieve their objective¹. To address this sustainability gap and aligned with the principles of a global public good, SOFF was designed with a phase of support following the Investment Phase, in which countries will receive results-based finance to sustain investments and ensure the long-term international sharing of data. To date, no other funding mechanism provides such open-ended, results-based support for sustaining hydrometeorological networks.

2. Compliance Phase Overview

2.1. Principles

The [SOFF Operational Manual](#) (section 4.5.3) and Steering Committee decision [5.7 SOFF and GBON Compliance](#) provide the foundation for the SOFF Compliance Phase. These documents define key requirements, tools and criteria for compliance monitoring, including operational elements and the monitoring, reporting and verification procedures.

The SOFF Compliance Phase builds on four key principles:

- **Results-based finance:** Compliance payments are made upon WMO Technical Authority independent verification of results, i.e. international sharing of GBON data.
- **Predictable long-term finance:** Long-term financial and technical support enables countries to sustain operations, following completion of the Investment Phase. As a pooled multi-partner fund, the design of the SOFF fund aims to support long-term finance for countries.

¹<https://openknowledge.worldbank.org/entities/publication/4fc1bf3e-7cc3-5134-a966-8aef62ce817f>

- **Continued technical support:** Peer Advisors, funded by SOFF on a cost-recovery basis, provide on-demand technical assistance.
- **Performance monitoring:** WMO Technical Authority routinely verifies performance through the WIGOS Data Quality Monitoring System (WDQMS) and the SOFF compliance monitoring tool.

2.2. Scope and Eligibility

Funding from SOFF is allocated in three phases of support: Readiness, Investment and Compliance. SOFF support starts with Readiness, in which the necessary assessments and plans are put in place for SOFF implementation. The SOFF Investment Phase builds on the outputs of the Readiness Phase and funding is used to procure, install and operate the observation infrastructure, telecommunications, and other equipment needed for GBON stations, as well as strengthen the human and institutional capacity needed to operate, maintain, and share GBON observations. A country transitions from the Investment Phase to the Compliance Phase once it demonstrates sustained operations of SOFF-funded stations and completes the commissioning period².

Commissioning is the process by which GBON data is reliably shared through WIS 2.0 in line with GBON compliance criteria. During the final year of the Investment Phase, countries must operate and maintain their networks according to these criteria. Performance is monitored jointly by the country and the Implementing Entity, with support from the Peer Advisor and the WMO Technical Authority. A station is formally declared *commissioned* once WMO verifies that it has met the criteria over a continuous three-month period.

The scope of Compliance Phase support is to provide both technical assistance and results-based finance, enabling countries to operate and maintain their national contribution to GBON and sustain international data sharing.

SOFF prioritizes support to SIDS and LDCs. Eligibility for different phases of SOFF support is currently defined in the SOFF [Operational Manual](#) as follows:

- **Small Island Developing States (SIDS) and Least Developed Countries (LDCs):** Eligible for all SOFF phases, including Compliance.
- **Other Official Development Assistance (ODA) eligible developing countries:** Eligible for the Readiness Phase only.
- **Potential future expansion:** The Steering Committee may open eligibility of Investment and Compliance support to additional countries through future decisions.

² [Decision-5.8-SOFF-Investment-Phase-Framework-and-Funding-Request-Template.pdf](#)

2.3. A results-based approach

A results-based approach to financing requires clear, measurable and independently verified metrics to validate the achievement of results. The SOFF model is based on the definition of GBON as agreed by WMO and its members³ and independent verification of compliance by the WMO Technical Authority to meet the requirements of a results-based approach. Payment for Compliance will be explicitly linked to these metrics and independent verification systems will be in place to ensure transparency. The results-based approach of the SOFF Compliance phase also enables learning and accountability, including allowing governments and donors easily monitor performance and demonstrate value for money.

3. Monitoring, Reporting and Verification of Compliance

3.1. GBON Compliance

This chapter describes how the compliance of SOFF countries with the Global Basic Observing Network (GBON), established by [Resolution 2 \(Cg-Ext\(2021\)\)](#) - Amendments to the Technical Regulations related to the establishment of the Global Basic Observing Network, will be monitored and verified. GBON compliance is defined in two ways, station-level compliance and Member (country) level compliance.

SOFF Compliance Phase support will be provided based on the station-level compliance, which will be achieved when a given station reports the required measurements, at the required temporal frequency, with the required reporting quality.

SOFF uses the GBON compliance criteria applicable to all WMO Members (193 states and territories) as the basis to plan and implement activities and monitor and verify results. Criteria are clearly outlined in Section 10.4 of the [Guide to the WMO Integrated Global Observing System](#) (WMO-No. 1165). The criteria for station-level compliance are defined by the WMO as outlined in [INF6.2](#). The WMO Technical Authority is responsible for the tools to monitor GBON compliance. Monitoring and data collection are entirely based on the [WIGOS Data Quality Monitoring System \(WDQMS\)](#) webtool.

3.2. Compliance monitoring

Monitoring of GBON stations is achieved through publicly available tools developed by the WMO:

- The **WDQMS web tool**, which provides information on the availability and quality of observational data;

³ GBON Guide which was approved by the 76th WMO Executive Council (EC-76) and in the WIGOS Manual (WMO-No. 1160)

- The **GBON compliance app**, which provides quarterly compliance information by station and by Member;
- The **SOFF Compliance monitoring tool** which will monitor the status of SOFF-funded stations and targets set through National Gap Analysis. The tool will be simplified and easy for partners to access and visualize information.

The GBON Compliance App publishes the compliance of each registered station with the GBON temporal reporting requirements and WMO Members with the GBON temporal and spatial reporting requirements, currently for Surface land stations and Upper-air stations operated from land.

Currently, these tools draw on data from four global Numerical Weather Prediction (NWP) centres: Deutscher Wetterdienst (DWD); European Centre for Medium-Range Weather Forecasts (ECMWF); Japan Meteorological Agency (JMA) and United States National Centers for Environmental Prediction (NCEP).

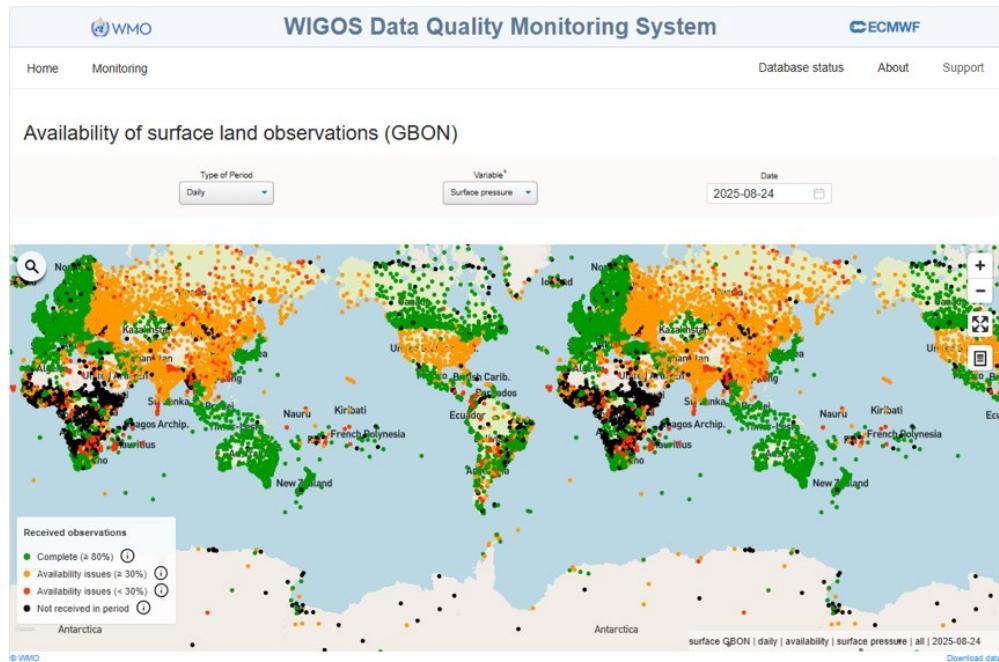


Figure 1: GBON surface station monitoring on WDQMS

3.3. Verification and WMO Annual Compliance Report

During the Compliance Phase, station level compliance will be verified by the WMO Technical Authority quarterly and annually. WMO will provide SOFF-tailored quarterly GBON compliance reports showing the SOFF funded stations' performance and progress, including the percentage of Compliance across a given time-period for each SOFF country. Quarterly GBON compliance monitoring reports will be made publicly available on the SOFF website.

These Compliance monitoring processes and outputs will be integrated into the SOFF Monitoring, Evaluation, and Learning (MEL) framework.

4. Implementation Arrangements

4.1. Process

The Compliance Phase provides predictable, results-based financing to sustain GBON operations. The financial and operational design features of the SOFF Compliance Phase are outlined in this section.

4.2. Eligible expenditures for Compliance payments

Eligible expenditures for Compliance payments are those that are deemed essential for sustained operation, maintenance and international sharing of GBON data. Below is an overview of eligible expenditures that will be continuously developed based on countries' needs and deemed essential from a technical and financial point of view.

1. **Consumables:** including consumables for 2 launches per day for upper-air stations.
2. **Spares and replacement costs:** while the expected lifetime of a system can be as high as 20 years (or more for upper-air) if maintained properly, parts and sensors will typically have shorter lifetimes. Costs of necessary spares and replacements are included in the cost of Compliance.
3. **Calibration:** depending on the calibration solution and process decided by the country, the needs for supporting regular calibration will differ. The cost of calibration will include shipping of equipment, as necessary, and any cost of the calibration service from the manufacturer or a local calibration facility.
4. **Software licenses:** including annual costs to provide various levels of upgrades and support.
5. **Service-level agreements:** including for software for complex equipment, this will reduce the expense of training and salaries of highly qualified technical staff.

- **Training of field staff for annual preventive maintenance:** while staff costs are born by the NMHS, the capacity development of staff to perform regular preventive maintenance is included in the cost of Compliance.
- 6. **Travel cost for maintenance:** including public transportation, vehicle rental or maintenance of vehicle including, fuel and accommodation.

Expenditures beyond those outlined below will require justification.

Costs to be covered by the country:

- **Business operating costs:** include operating expenses such as rent (office, furniture, etc.), equipment (services, computers, vehicles), inventory costs, payroll and insurance.
- **Administrative costs:** include the cost of staff salaries required to carry out the work of the financial and human resource management and day-to-day administrative work.

7. **Utilities:** including mains power, water, sewer, and communications required for all sites.

4.3. Calculation of Compliance payments

4.3.1. Fixed country tailored cost per station

Each country will determine the fixed cost of Compliance for surface and upper-air stations in that country, determined based on the eligible expenditures defined in section 4.2 before the end of the Investment Phase. This cost will be determined jointly by the country, the Implementing Entity and the Peer Advisor, with technical input from the WMO Technical Authority. Countries will submit a SOFF Compliance Phase funding request prior to the end of the SOFF Investment Phase. To determine the total annual Compliance payment to be made to the country, the calculation will consider the number of compliant stations (see 4.3.3) and the co-financing of the country (see 4.3.2).

4.3.2 Country contribution to Compliance payments

While acknowledging the global public good value of data generated and internationally shared by countries, countries are expected to financially contribute to cover compliance costs of up to 25% of the compliance payment amount. This contribution is in addition to the costs covered by the country as outlined in section 4.2. The financing can come from a country's own budget, other public or multilateral sources, climate or development funds, NGOs, or the private sector.

A country's contribution will be based on its **economic ability to pay under GBON**, defined as **GDP per surface area** (including EEZ for SIDS). The number of required GBON stations is a function of its surface area. Based on this calculation, countries are grouped into five categories:

Category	GDP per surface area	Percentage co-financing
Category I	< 50,000 USD/km ²	0%
Category II	50,000 – < 100,000 USD/km ²	5%
Category III	100,000 – < 200,000 USD/km ²	10%

Category IV	200,000 – < 500,000 USD/km ²	15%
Category V	≥ 500,000 USD/km ²	25%

The distribution of SIDS and LDCs across categories is presented in Annex 1.

4.3.3. Calculation of the amount of annual Compliance payments

Payments will be made annually, covering the period 1 July to 30 June, following Steering Committee approval at the October Steering Committee meeting. The yearly compliance payment is calculated as the sum of the yearly fixed costs for each station type, minus the country contribution, multiplied by the ratio of compliant quarters. The WMO Annual Compliance Report issued in September will provide the number of quarters each SOFF-funded station met GBON compliance requirements.

4.3.4. Compliance payments special considerations for upper-air stations

Many SOFF countries will be operating upper-air stations for the first time through SOFF investments. Due to the particular importance of upper-air observations for NWP and the reliance of successful launches on the purchase of consumables for the stations, lack of sufficient resources might jeopardize future compliance. To address this challenge, special considerations for upper-air stations are made in which payments for non-compliance of 4 full quarters are issued before transitioning to a strict results-based model.

This results in the following approach for compliance payments:

- For **surface stations** – SOFF will provide payments for compliant quarters.
- For **upper-air stations** – SOFF will provide payments for up to four quarters of non-compliance, before transitioning to the strict payment for results model of payments only for compliant quarters.

4.4. Execution and disbursements

Compliance payments will be made according to a results-based finance model in which funds are disbursed upon WMO verification of GBON compliance through the annual Compliance report. To disburse funds, two modalities will be available to SOFF countries depending on the financial and legal structures in place within the NMHS. The preferred option should be selected by the country in the Compliance phase funding request. The two options for disbursement of results-based annual Compliance payments are as follows:

- **Direct disbursement from UNMPTF to the NMHS (or national government entity designated by the country).** In this model, the UNMPTF will directly disburse the annual Compliance Phase payments to the country upon approval of

the Steering Committee. The NMHS or designated government entity will need to pass mandatory due diligence assessments required by the UN System. The assessments will evaluate the financial management capacity and risks of implementing partners.

- **Disbursement through UN entity pooled project modality through a UN entity to the NMHS.** In this model, funds from the UNMPTF will be disbursed to a UN entity as a pooled multi-country project managed by the entity. The entity will directly manage the disbursement of results-based payments to all countries who have selected this model, preferably through their decentralized office using the entity's internal due diligence requirements. The UN entity will manage these funds with the 7% Implementing Entity fee as determined by the UNMPTF. This option is suitable for NMHSs in which the financial and legal structures for direct receipt of payment are not yet established. The funds for Compliance will be transferred to the NMHS according to an agreement between the UN entity and the NMHS.

4.5. Contingency funding window

The Contingency funding window of the Compliance Phase will cover costs for corrective maintenance that is not considered part of the annual and regular costs of Compliance according to the assessment of total cost of ownership. This funding window will be available to countries to request as needed support for unanticipated equipment failures damaged by the environment (damage beyond normal depreciation of equipment, or other damages outside of standard operations which cannot be prevented through good planning and O&M).

Contingency support in the SOFF Compliance phase requires a request for support from the country outlining the problem and the need. The request further requires validation by Peer Advisor. The request will be reviewed by the WMO Technical Authority and the Steering Committee will consider and approve each request individually. The country will be eligible to apply for this window once every 3 years.

4.6. Regional window for Compliance

Regional efficiency is a core SOFF principle defined in the SOFF programming criteria (Decision 1.4), specifically the criteria on opportunities to create economies of scale and optimize the design of the observing networks through multi-country/sub-regional implementation. As in the Readiness and Investment Phases, the Compliance Phase aims to create economies of scale and optimize observing networks through multi-country and sub-regional approaches.

Upon consultation with countries, the need for a regional window of funding for the Compliance Phase was emphasized, in particular in the Pacific in the Caribbean, where countries maintain networks through support of regional institutions and collaborate due

to the small size and limited resources of certain NMHSs. Depending on the needs of a particular country and/or region, SOFF will consider proposals for pooling Compliance payments through a regional request. The payments will still be calculated according to the criteria outlined above. If countries agree to request Compliance support regionally, the request for funding can be considered in the UN entity pooled payment modality as a regional request that can support regional institutions or functions. The proposal would need to be prepared by and signed by all countries involved. The regional Compliance support is an option available to countries, but the decision will remain with the WMO Permanent Representative of each country.

5. Technical support in the Compliance Phase

5.1. Peer Advisory technical support

Peer Advisors provide on-demand GBON operational and maintenance advisory support throughout the Compliance Phase. When issues occur with the performance of SOFF funded stations, or GBON compliance is threatened or compromised, the Peer Advisors are the “first line of defense” and liaise with the NMHS and WMO regional centers, as necessary, to ensure the fastest possible resolution of issues.

Peer Advisory costs will be provided on-demand, based on the needs of the country. A financial cap for Peer Advisory support is included in the funding request for the Compliance Phase. Peer technical assistance is capped at USD 100,000 per country over a 3-year period.

5.2. WMO Technical Authority

In the Compliance phase, WMO will continue to perform its function of monitoring GBON compliance using WIGOS tools and reporting to SOFF. WMO will further support the operationalization of the Compliance phase by providing timely technical feedback to countries and peer advisors, helping to diagnose compliance issues related to observation quality, metadata, communications, or data exchange.

This support will be delivered in close coordination with WMO-designated regional centres, including WIGOS Regional Centres and Global Information System Centres, ensuring that regional capacities are leveraged effectively while maintaining a clear Technical Authority interface for SOFF.

Annex I: Roles and Responsibilities during Compliance

SOFF Countries

Through their NMHSs, SOFF countries are responsible for operating and maintaining their station network, including GBON stations, in line with GBON regulations. The countries will have ownership during the SOFF Compliance phase and the ultimate responsibility for compliance is with the country. Countries are responsible, together with operational partners, for preparing the Compliance Phase funding requests and reporting any problems to the WMO Technical Authority or SOFF Secretariat.

SOFF Peer Advisors

Peer Advisors provide on-demand technical support to SOFF countries, which remain responsible for operating and maintaining their GBON stations in line with GBON regulations. Peer Advisors support the SOFF country to resolve problems quickly when performance issues occur, and also for liaising with Regional WIGOS Centres (RWCs) and Global Information System Centres (GISCs) when requested by the SOFF country.

Their main functions include:

- Advising National Focal Points (NFPs) for WIGOS, OSCAR/Surface, WDQMS and WIS on GBON implementation;
- Supporting SOFF countries, in particular, NFPs for WIGOS, OSCAR/Surface, WDQMS and WIS, to resolve issues regarding monitoring results and payment triggers;

Funding for Peer Advisory support during the Compliance phase will be approved by the Steering Committee in the Compliance Phase funding request. WMO acts as pass-through entity to contract Peer Advisors. Countries can request support through the SOFF Secretariat, but responsibility for resolving station issues remains with the NMHS. Peer technical assistance is capped at USD 100,000 per country over a period of 3 years.

WMO Technical Authority (WMO TA)

The WMO Technical Authority will:

- Verify the status of GBON compliance after the commissioning period and provide verification for all SOFF Compliance Phase payments;
- Produce a quarterly GBON compliance report, to be shared with the SOFF Secretariat one month before the Steering Committee meeting in May/June;
- Provide technical guidance and support to Members on GBON and compliance requirements, in line with its mandate.

SOFF Secretariat

The SOFF Secretariat facilitates coordination and collaboration among operational partners during the Compliance Phase. Its responsibilities include:

- Coordinating the review of Compliance Phase funding requests and submitting them to the Steering Committee;
- Maintaining the SOFF GBON compliance tool, with support from the WMO Technical Authority.
- Reporting to the UNMPTF and SOFF Steering Committee on progress in the Compliance Phase

Steering Committee

- The Steering Committee will consider and approve annual Compliance payments at the October Steering Committee meeting based on the WMO Annual Compliance Report issued in September.
- The Steering Committee will decide on updates/revisions to the Compliance Framework as required based on lessons learned.

Annex 1. Distribution of SIDS and LDCs by category.

No.	Countries	Category
1	Bangladesh	V
2	Cook Islands	V
3	Rwanda	V
4	Singapore	V
5	Cambodia	IV
6	Cuba	IV
7	Dominican Republic	IV
8	Gambia, The	IV
9	Nepal	IV
10	Trinidad and Tobago	IV
11	Uganda	IV
12	Benin	III
13	Djibouti	III
14	Ethiopia	III
15	Guinea	III
16	Haiti	III
17	Myanmar	III
18	Senegal	III
19	Sierra Leone	III
20	St. Kitts and Nevis	III
21	St. Lucia	III
22	Togo	III
23	Angola	II
24	Belize	II
25	Burkina Faso	II
26	Burundi	II
27	Grenada	II
28	Guyana	II
29	Jamaica	II
30	Lao PDR	II
31	Lesotho	II
32	Malawi	II
33	Nieu	II
34	Tanzania	II
35	Afghanistan	I
36	Antigua and Barbuda	I
37	Bahamas, The	I

38	Barbados	
39	Cabo Verde	
40	Central African Republic	
41	Chad	
42	Comoros	
43	Democratic Republic of the Congo	
44	Dominica	
45	Eritrea	
46	Fiji	
47	Guinea-Bissau	
48	Kiribati	
49	Liberia	
50	Madagascar	
51	Maldives	
52	Mali	
53	Marshall Islands	
54	Mauritania	
55	Mauritius	
56	Micronesia, Fed. Sts.	
57	Mozambique	
58	Nauru	
59	Niger	
60	Palau	
61	Papua New Guinea	
62	Samoa	
63	Sao Tome and Principe	
64	Seychelles	
65	Solomon Islands	
66	Somalia	
67	South Sudan	
68	St. Vincent and the Grenadines	
69	Sudan	
70	Suriname	
71	Timor-Leste	
72	Tonga	
73	Tuvalu	
74	Vanuatu	
75	Yemen, Rep.	
76	Zambia	

Notes:

- GDP data are based on World Bank sources, or other reliable sources where World Bank data are not available.
- Surface area data are based on those used for the WMO GBON Global Gap Analysis.
- The calculations are planned to be updated annually to ensure they remain up to date.