



Twelfth Steering Committee **29 October 2025**

SOFF Monitoring, Evaluation and Learning (MEL) Framework

Consultation 12.2

Systematic Observations
Financing Facility

**Weather
and climate
data for
resilience**



Purpose of the document

Through [Decision 11.3](#), the 11th Steering Committee extended the First Implementation Period. This extension would also provide time to capture lessons learned and develop the SOFF Compliance Framework and the SOFF Monitoring, Evaluation and Learning (MEL) Framework.

This document presents the key elements of the proposed MEL Framework, identifies questions where Steering Committee guidance is sought, and sets out the proposed final consultation plan. In addition to Steering Committee guidance, targeted consultations will be held with countries, Peer Advisors, Implementing Entities, the WMO Technical Authority, the UNMPTF Office, and the Advisory Board.

It is expected that the MEL framework will be submitted for consideration and endorsement at the 13th meeting.

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1. Why a MEL Framework?

The SOFF Monitoring, Evaluation and Learning (MEL) framework is designed to:

- Provide a single umbrella for SOFF monitoring, evaluation and learning processes.
- Strengthen accountability and transparency across operations through systematic monitoring, evaluation and reporting.
- Enable adaptive management, systematic learning and alignment with international good practice.

SOFF has already established essential instruments for results-driven operations, including a [Theory of Change \(ToC\)](#). Many MEL elements are embedded in existing documents: reporting obligations in the [Operational Manual \(OM\)](#), indicators in the [Updated SOFF Results Framework](#), gender integration through the [Gender Action Plan](#), and risk oversight via the [Risk Management Framework](#).

The MEL framework does not replace these instruments; it consolidates and harmonizes them under a single umbrella to ensure consistent, transparent and systematic application across all SOFF phases (Readiness, Investment and Compliance). It also maps out SOFF contributions to international commitments and partnerships, including the Paris Agreement, the Early Warnings for All initiative and the Sendai Framework for Disaster Risk Reduction.

2. Core Elements of the MEL Framework

The MEL framework directly references the [SOFF Theory of Change](#) and the [Updated SOFF Results Framework](#). It defines the purpose, scope, objectives and methods to track progress at fund and project levels across monitoring, evaluation and learning. The detailed framework is presented in [Annex 1](#).

2.1. Monitoring

Monitoring is a continuing process that involves the systematic collection and collation of data (on specified indicators or other types of information). It provides the management and other stakeholders of an intervention with indications about the extent of implementation progress, achievement of intended results, occurrence of unintended results, use of allocated funds and other important intervention and context-related information.¹

→ **From SOFF perspective:**

¹ https://www.oecd.org/en/publications/glossary-of-key-terms-in-evaluation-and-results-based-management-for-sustainable-development-second-edition_632da462-en-fr-es.html

The monitoring objective is to continuously track progress, performance, risks and resource use at both fund and project levels across all three SOFF phases.

Key monitoring methods (current and continuing) include:

- **At fund level:** Steering Committee reporting; the [SOFF online dashboard](#); UNMPTF annual [financial](#) and [narrative](#) reports; the [SOFF Action Report](#).
- **At project level:** reports from Peer Advisors in the Readiness and Investment phases, and from Implementing Entities in the Investment phase; Compliance Phase reporting is under development.

For details refer to [section A1.4](#) of Annex 1.

2.2. Evaluation

Evaluation is the systematic and objective assessment of a planned, ongoing or completed intervention, its design, implementation and results. The aim is to determine relevance, coherence, effectiveness, efficiency, impact and sustainability. Evaluation also refers to the process of determining the worth or significance of an intervention. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into decision-making processes.²

→ **From SOFF perspective:**

The objective is to support accountability and learning at both fund and project levels across all three SOFF phases, thereby ensuring the long-term sustainability of SOFF-supported projects and the credibility of the initiative.

Key evaluation methods (current and continuing) include:

- **At fund level:** [Independent External Review](#), Independent External Evaluation, and Impact Reports (including [ECMWF-led SOFF impact experiments](#) that quantify how new GBON observations reduce uncertainty in weather forecasts).
- **At project level:** Evaluation of Peer Advisor support at the end of the Readiness phase, project evaluations by Implementing Entities during the Investment Phase, and a future evaluation component under the Compliance Phase framework (currently under development).

² https://www.oecd.org/en/publications/glossary-of-key-terms-in-evaluation-and-results-based-management-for-sustainable-development-second-edition_632da462-en-fr-es.html

2.3. Learning

According to OECD guidelines learning is integrated into the monitoring and evaluation cycle to ensure that findings are used to improve performance, refine strategies and empower stakeholders.

→ From SOFF perspective

The objective is to foster continuous improvement, adaptive management and global knowledge exchange across all SOFF phases at both fund and project levels. The Learning component of the MEL framework contributes to strengthening long-term capacity for surface-based observations in developing countries, ultimately helping to close the gap in basic weather and climate data.

Key learning methods (current and continuing) at both fund and project levels include:

- Consolidating implementation challenges and lessons in Steering Committee documents.
- Generating learning outputs through reporting, evaluations, technical assistance, regional workshops and stakeholder dialogues.
- Capturing and exchanging knowledge via the SOFF Learning Portal (on WMO Moodle), webinars, case materials and private-sector engagement activities.
- Exploring the development of a SOFF Knowledge Center — a stand-alone, membership-based digital platform integrating the existing Moodle platform and offering forums, libraries, virtual events, e-learning, and newsletters, with advanced features to strengthen member engagement.

3. Benchmarking with other climate funds

The SOFF MEL Framework is grounded in a benchmarking of monitoring, evaluation and learning policies and practices of other climate funds and international organizations, in particular the climate funds with whom SOFF has developed and signed the [collaboration framework](#) for enhancing systematic observation and improving the use of basic weather and climate data for effective climate action with Green Climate Fund (GCF), Global Environment Facility (GEF), Adaptation Fund (AF), Climate Investment Funds (CIF), CREWS (Climate Risk & Early Warning Systems Initiative).

Benchmarking Monitoring

A comparative assessment of MEL frameworks of the five climate funds shows that all anchor monitoring in results frameworks with clear indicators aligned to fund goals. For example, the Adaptation Fund emphasizes adaptation-focused indicators consistent with global climate finance standards. Monitoring incorporates feedback from countries,

entities and beneficiaries, and feeds into structured reporting with clear cycles and responsibilities to ensure accountability.

Benchmarking Evaluation

The GCF, AF, GEF, CIF and CREWS all include evaluation elements tailored to their mandates. For example, the GEF applies a comprehensive [Monitoring and Evaluation Policy](#), the GCF has an [Evaluation Policy and Monitoring and Accountability Framework](#), the AF applies its own evaluation policy, and the CIF uses its [Evaluation and Learning Initiative](#). Evaluation objectives differ at fund and project levels, but most apply OECD-DAC criteria of relevance, coherence, effectiveness, efficiency, impact and sustainability. Fund-level evaluations are conducted by independent or external units, either dedicated (as in the CIF) or commissioned (as in CREWS), typically every three to five years. Project-level evaluations assess success, support adaptive management and add to the knowledge base.

Benchmarking Learning

The GCF, AF, GEF, CIF and CREWS embed learning as a core part of their MEL frameworks. The GCF does so through its Independent Evaluation Unit and revised Readiness Results Management Framework (2024–2027), which promote adaptive management and knowledge sharing. The AF emphasizes thematic evaluations that generate knowledge products for scaling and impact, while the GEF links learning to policy updates through its Independent Evaluation Office.

See [Annex 2](#) for detailed benchmarking insights.

4. Consultation questions

Teme	Questions for Steering Committee
Monitoring	Implementing Entities are currently reporting every six months instead of quarterly, as stated in the Operational Manual. This has helped maintain oversight while reducing the administrative workload for all partners. 1. Should SOFF continue with semi-annual Implementing Entity reporting and align the Operational Manual accordingly?
	The Country Hydromet Diagnostics (CHD), a standardized assessment tool for NMHSs, was developed by WMO in collaboration with all members of the Alliance for Hydromet Development. It has been operationalized through the SOFF and has served as a methodological basis for the Early Warnings for All Pillar 2 Rapid Assessment . While its use is currently voluntary for SOFF countries, all countries in the SOFF Readiness Phase have requested a CHD.

	2. It is proposed that the CHD become a mandatory tool for SOFF to systematically assess NMHS progress over time, with the Operational Manual aligned accordingly.
	Updated SOFF Results Framework has yet to specify the high-level outputs and outcomes. 3. What is the appropriate process and timing for reviewing and updating their targets? Recommendation: To be revised after the end of the Extended First Implementation period
Evaluation	4. Should the Investment Funding Request (IFR) template be revised to include a dedicated section on project-level evaluation, requiring Implementing Entities to: • In each IFR the IEs, explicitly states to be conducting a final evaluation of the project, • Ensure gender-sensitive component is explicitly addressed in the evaluation criteria in line with SOFF Gender Action Plan, and ◦ Include a budget line for evaluation activities, where needed 5. Given that the Compliance Phase is results-based, are evaluations of this phase needed?
Learning	6. Should SOFF create a SOFF Knowledge Centre — a single-entry, membership-based virtual space for the SOFF community offering libraries, forums, virtual events, e-learning and other interactive services?
Overall	7. Is this preliminary draft MEL framework (Annex 1) sufficiently comprehensive and precise?

5. Next Steps

- October 2025, targeted consultations with countries, Implementing Entities, Peer Advisors at the upcoming SOFF two events: i) *SOFF Africa regional workshop for countries in investment phase* (1-3 Oct) and ii) *the Peer advisor and implementing entity workshop* (6-8 Oct), both in Casablanca, Morocco.
- 12th Steering Committee (October 2025): discussion of draft framework and seeking feedback on consultation questions.
- Q4 2025 – Q1 2026: targeted consultations with countries, Implementing Entities, Peer Advisors, Advisory Board, and WMO Technical Authority.

- 13th Steering Committee (February 2026): final consideration and endorsement of the MEL framework.

Annex 1: Preliminary draft of Monitoring, Evaluation, and Learning (MEL) Framework

A1.1 Background and context

Since its establishment, SOFF has gradually built the instruments needed for effective oversight and delivery. The Terms of Reference defined the Theory of Change; the Operational Manual set operational rules and procedures; the Investment Framework established principles and standards for SOFF investments; and the Results Framework for the First Implementation Period introduced indicators to track early progress across the Readiness and Investment phases. Together, these instruments form the foundation for transparent, results-driven operations. The SOFF Monitoring, Evaluation and Learning (MEL) Framework consolidates the monitoring, evaluation and learning elements from these documents under a single umbrella.

SOFF Theory of change and Results Framework

SOFF has a well-defined Theory of Change with one high-level outcome — improved weather and climate prediction products — one intermediate outcome of sustained GBON compliance, and a clear set of outputs. It shows how these outputs are expected to deliver the desired high-level outcome. The [SOFF updated results framework \(Decision 6.7\)](#) provides the indicators that are to be monitored across the three SOFF phases: Readiness, Investment and Compliance. The MEL framework will be anchored in the theory of change.

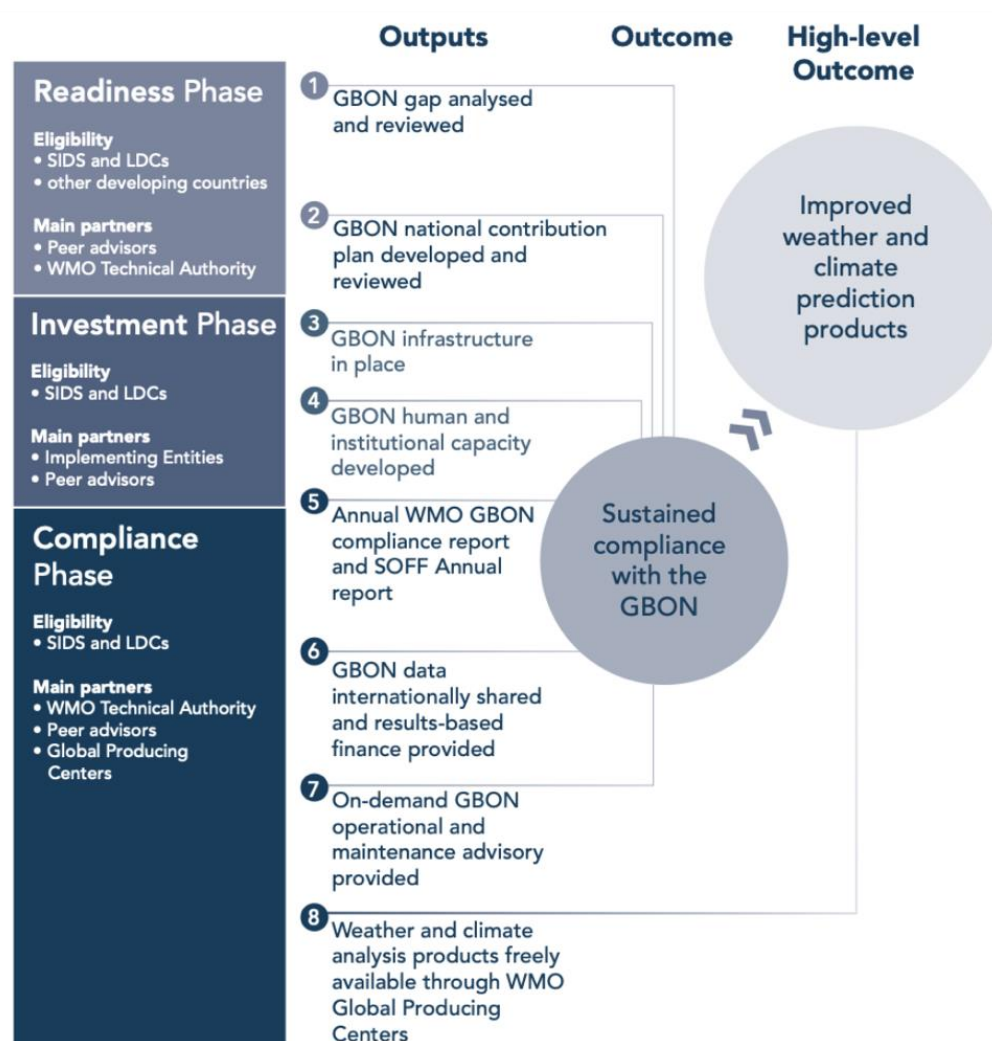


Figure 1. SOFF theory of change provides the outcomes and outputs to monitor the progress and evaluate the success of achieving the SOFF Theory of Change.

Capturing MEL across SOFF documents

The documents on which the MEL framework is built are as follows:

- Memorandum of Understanding (MoU)
- [Terms of Reference \(ToR\)](#), including [Theory of Change \(ToC\)](#)
- [Operational Manual \(OM\)](#)
- [Updated SOFF Results Framework](#)
- [Gender Action Plan](#)
- [Work Programme](#)
- [Investment Framework](#)
- [Risk Management Framework](#)
- [SOFF Readiness funding request template](#)

- [SOFF investment funding request template](#)
- Compliance Framework (under development)

The following chapters provide further detail on these elements.

A.1.2 SOFF contribution to global and regional climate action initiatives

SOFF and consequently the SOFF MEL contribute to global and regional climate action initiatives as elaborated below:

Global Initiatives

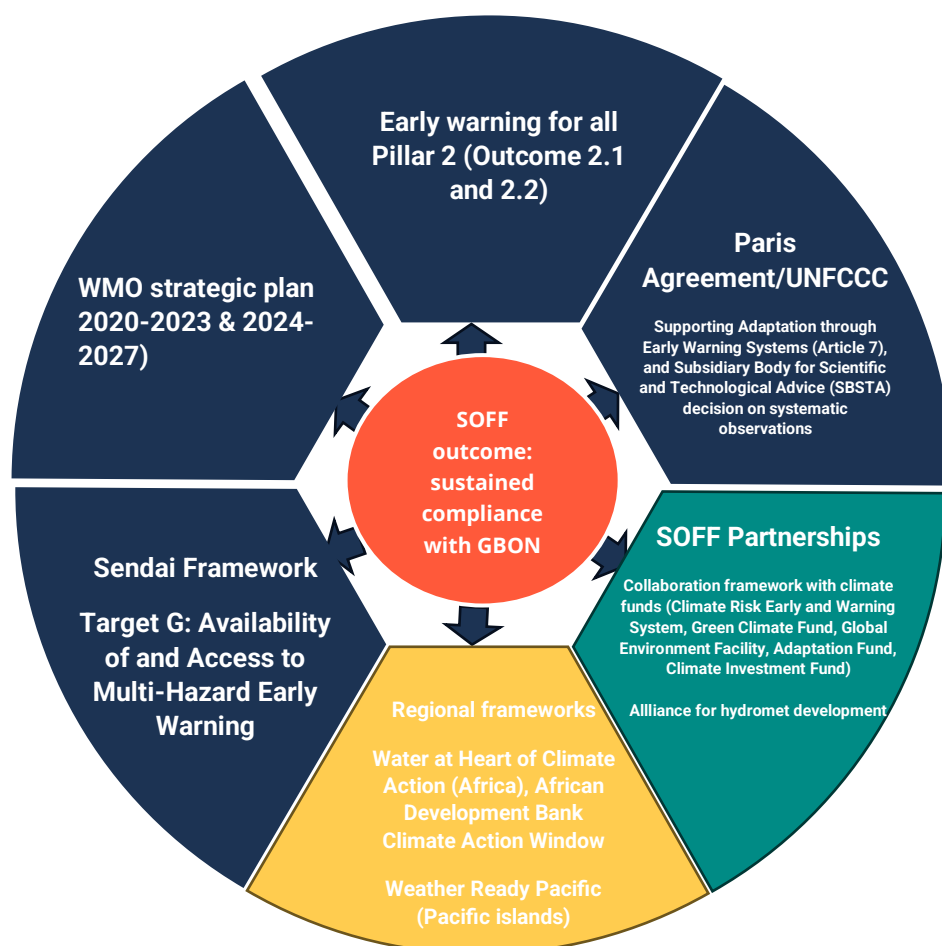


Figure 2: SOFF`s contribution to the global and regional climate action initiatives

- **World Meteorological Congress resolutions and WMO Strategic Plans**

GBON (Global Basic Observing Network) was established through WMO Resolution 75 (Cg-18) to set mandatory requirements for surface- and upper-air observations globally. SOFF was created via [WMO Resolution 76](#) (Cg-18) in 2021, responding to the urgent need to close observational data gaps, especially in Least Developed Countries (LDCs) and Small Island Developing States (SIDS).

The WMO Strategic Plans (2020-2023 and 2024 -2027) have a long-term “Goal 2: Enhance Earth system observations and predictions: Strengthening the technical foundation for the future” and “Goal 4: Close the capacity gap on weather, climate, hydrological and related environmental services”³.

→ **SOFF's contribution:** SOFF aims to ensure that National Meteorological and Hydrological Services (NMHSs) have the observational data required to deliver reliable, sector-specific services that strengthen climate resilience across priority sectors. During the Compliance Phase, and in collaboration with WMO, enhancements in Earth system observations will be monitored and verified annually.

- **Paris Agreement / UNFCCC**

Article 7 of the Paris Agreement states the importance of “Strengthening scientific knowledge on climate, including research, systematic observation of the climate system and early warning systems, in a manner that informs climate services and supports decision-making” as essential element for adequate adaptation. Article 8 on Loss and Damage highlights “early warning systems” as a key area of cooperation (UNFCCC, 2015). About half of NDCs, 40% of NAPs, and over 90% of adaptation communications mention early warning systems⁴.

→ **SOFF's contribution:** By financing GBON-compliant observing networks, data-sharing support, and technical assistance for NMHSs, SOFF enables countries to meet their obligations on systematic observation, deliver on EWS commitments in NDCs and NAPs, and establish the foundation for effective climate services.

- **Early Warnings for All (EW4All) Initiative**

Launched in 2022 by the UN Secretary-General, EW4All aims to ensure universal protection through multi-hazard early warning systems.

→ **SOFF's contribution:** SOFF is a foundational element and operational delivery mechanism for EW4All's Pillar 2 (Detection, Observation, Monitoring, Analysis and Forecasting). The [EW4All's Dashboard](#) captures SOFF intermediary outcomes 2.1

³ [WMO Strategic Plan 2024-2027](#)

⁴ UNFCCC & GEO 2024. Realising Early Warnings for All: Innovation and Technology in Support of Risk-Informed Climate Resilience Policy and Action. United Nations Climate Change Secretariat. Bonn.

(increased availability of quality observation data for hazard monitoring) and 2.2 (enhanced data exchange and access for forecasting and warning systems), along with related indicators such as number of Members supported, GBON compliance and WIS data-exchange metrics. This enables EW4All to directly aggregate SOFF outcomes into its Pillar 2 implementation indicators.

- **Sendai Framework**

The Sendai Framework for Disaster Risk Reduction 2015 – 2030 has a dedicated target on early warning systems (Target G) to *“Substantially increase the availability of and access to, multi hazard early warning systems and disaster risk information and assessments to people by 2030”* (UNDRR, 2015).

→ **SOFF’s contribution:** SOFF addresses the very first step of the early warning value chain — accurate detection and monitoring — which is essential for effective multi-hazard systems and risk-informed decision-making.

- **Regional initiatives**

- **Africa (Water at the Heart of Climate Action):** SOFF funds the production and delivery of climate products and services, enabling disaster management authorities in Ethiopia, Sudan, South Sudan, and Uganda to provide accurate and timely warnings to vulnerable communities.
- **African Development Bank (Climate Action Window):** Following the 9th SOFF Steering Committee decision, a partnership was formally established in 2024 with the African Development Bank through its Climate Action Window (CAW). Together, SOFF and CAW coordinate advocacy, resource mobilization and capacity-building to address critical climate data and early warning gaps across the continent.
- **Weather Ready Pacific Program (WRP):** An agreement on complementarity and collaboration with the Weather Ready Pacific (WRP) programme was signed in 2024. Under this partnership, SOFF supports Pacific Island countries in achieving sustained GBON compliance, while WRP strengthens observational networks beyond GBON and advances activities further along the value chain.

- **Other SOFF Partnerships**

- **Alliance for Hydromet Development**

The Alliance for Hydromet Development brings together major international development, humanitarian and climate finance institutions committed to closing the

hydromet capacity gap by 2030. It seeks to enhance the effectiveness and sustainability of hydromet investments through coordinated partnerships that leverage the expertise of its members. The creation of SOFF was the Alliance's priority commitment to address challenges from past investments in observation infrastructure. All Alliance members have contributed to SOFF's development, and almost all are engaged in its governance or operations. SOFF has now been invited, jointly with CREWS, to join the Alliance, as noted in Decision 12.5.

- **Collaboration framework with other climate funds**

The Framework for Collaboration on Enhancing Systematic Observation was developed at the request of the SOFF Steering Committee (Decisions 5.5 and 6.4). It was signed by the Secretariats of the Adaptation Fund, Climate Investment Funds, Climate Risk and Early Warning Systems Initiative, Global Environment Facility and Green Climate Fund at the SOFF high-level event on 9 December 2023 during COP28. The framework establishes complementarity and joint action between SOFF and major climate funds.

A1.3 Scope and purpose of MEL framework

The MEL framework represents an umbrella document based on the existing SOFF documents. It encompasses all phases of SOFF support (Readiness, Investment, and Compliance).

The framework is expected to serve three purposes:

- **Defining** the scope, objectives, methods, and timelines for monitoring, evaluation and learning activities.
- **Harmonizing** SOFF data collection methods, indicators, and reporting processes to ensure consistency, comparability, and reliability of information across phases and stakeholders.
- **Allowing for adaptive management** that involves an ongoing process of working collaboratively and flexibly to learn, make decisions, test assumptions, and adjust actions on this basis (OECD 2023).

A1.4 Monitoring

Objectives of monitoring for SOFF

The objective of SOFF monitoring is to systematically track progress, performance, resource use, and risks across all SOFF-supported activities. The data collected will provide the Steering Committee, implementing partners, Peer Advisors, and beneficiary countries with timely, credible information on progress and outcomes, thereby supporting accountability, adaptive management, and learning. Monitoring is guided by the OECD results framework and anchored in the outputs and indicators of the SOFF

Theory of Change and Results Framework, enabling timely course corrections and continuous improvement.

Monitoring methods

The following monitoring methods have been applied and will continue to be used and refined throughout SOFF operations to support monitoring, evaluation, and learning:

At fund level

Monitoring is the continuous, systematic collection of data on key indicators to track progress and the use of funds, while reporting is the formal communication of these findings to stakeholders to demonstrate results. This link between monitoring and reporting is central to SOFF's results-based framework, which uses multiple interconnected reporting channels to ensure accountability and track progress against agreed objectives, as outlined below.

- **Steering Committee reporting**

At each Steering Committee meeting, the SOFF Secretariat provides a regular update on the progress and implementation of country projects in all three phases, covering their progress, key challenges, successes, and lessons learned through a standard INF document prepared by the SOFF Operations team.

- **Dashboard on SOFF website**

The SOFF Secretariat maintains a publicly accessible dashboard that regularly updates implementation status and progress. The main purpose of the dashboard is to serve as a centralized, transparent, and public-facing tool for visualization of the fund's progress.

- **UNMPTF Annual Report**

The UN Multi-Partner Trust Fund Office (UNMPTF) acts as the Administrative Agent for SOFF, providing the Steering Committee with annual consolidated financial and narrative progress reports covering all activities. Financial reports are prepared directly by the UNMPTF based on submissions from participating organizations, while the SOFF Secretariat prepares the narrative report using semi-annual reports from Peer Advisors and semi-annual and annual reports from Implementing Entities. The narrative report includes updates on gender, social and environmental safeguards; participation of civil society and the private sector; complementary financing and leverage; the grievance redress mechanism; and success stories. Consolidated financial and narrative reports are published on the UNMPTF website.

- **SOFF Action Report**

Each year, the SOFF Secretariat produces a high-level Action Report alongside the UNMPTF Annual Progress Report, which serve complementary purposes. The Action

Report is a strategic communication tool for policymakers, funders and the public, presenting a visually compelling narrative of SOFF's achievements and impact. It is launched at UNFCCC COPs to showcase SOFF and is informed by the UNMPTF Annual Report, which provides detailed reporting against the results framework.

- **SOFF reporting to other global initiatives**

- **EW4All annual progress reports:** The SOFF Secretariat contributes to the EW4All M&E working group on Pillar 2, with its inputs incorporated into EW4All's annual progress reports to the UN Secretary-General via the Advisory Panel co-chaired by WMO and UNDRR.
- **COP and SBSTA:** The SOFF Secretariat produces annual Action Reports launched at high-level events during UNFCCC COPs. At the request of Parties, SOFF also provides updates at COP Earth Information Days, which inform the deliberations and conclusions of the Subsidiary Body for Scientific and Technological Advice (SBSTA).
- **World Meteorological Congress:** The SOFF Secretariat works with WMO to prepare reports for the World Meteorological Congress, highlighting SOFF's progress in strengthening global observing systems and its alignment with WMO's strategic objectives.

At project level

SOFF's project-level monitoring is based on a results framework with predefined indicators tailored to each of the three phases of country support. This approach aligns with standard results-based management practices, ensuring monitoring is systematic and data-driven.

- **Readiness Phase**

Peer Advisors are responsible for the timely and quality delivery of outputs under their Assignment Agreement. They must monitor progress closely and, in line with the Umbrella Legal Agreement, promptly notify the SOFF Secretariat of any issues, delays or risks. Semi-annual progress reports are submitted to the Secretariat, which reviews them to track implementation, identify systemic issues and facilitate solutions. Final payment is released only after all Readiness Phase outputs are delivered, technically reviewed by the WMO Technical Authority, and formally signed off by the country.

- **Investment Phase**

The SOFF [Investment Framework](#) defines standardized outputs and outcomes for all investments. During the Investment Phase, Peer Advisors submit semi-annual reports to the SOFF Secretariat on progress against their TORs, while Implementing Entities (IEs) provide semi-annual and annual narrative reports to the Secretariat and annual financial reports to the UN Multi-Partner Trust Fund (UNMPTF) Office. These reports track progress

against approved indicators. The Secretariat reviews them to monitor milestones, address challenges, and ensure projects remain on track, consolidating findings into the Annual Narrative Report for the Steering Committee and the Progress Update INF document.

In addition, each NMHS, with support and technical quality assurance from the Implementing Entity, prepares a GBON Investment Phase completion report. The report outlines results achieved, lessons learned, and the institutional arrangements established to ensure sustained GBON compliance during the Compliance Phase.

- **Compliance Phase**

GBON compliance is monitored and verified using publicly available data from the WDQMS web tool and the GBON compliance app. WDQMS tracks the availability and quality of observational data in near real time, while the compliance app provides quarterly country-level compliance information. Data are currently supplied by four global Numerical Weather Prediction (NWP) centres: the German Weather Service (DWD), ECMWF, the Japan Meteorological Agency (JMA), and the U.S. National Centers for Environmental Prediction (NCEP). In addition, SOFF and WMO are developing a dedicated SOFF GBON Compliance tool, based on WMO data and existing systems, to monitor and report on SOFF-funded stations. This tool will support operational monitoring and be accessible to SOFF partners, including Peer Advisors and Implementing Entities.

The WMO technical authority will verify station-level compliance on a quarterly and annual basis. It will issue SOFF-tailored quarterly reports detailing the performance of SOFF-funded stations and the total number of GBON-compliant stations in each country. SOFF countries and Peer Advisors will have access to these reports. By September 2025, WMO and SOFF will demonstrate the methodology for calculating quarterly and annual compliance for use in SOFF yearly reports.

A1.5 Evaluation

Objectives of evaluation for SOFF

This section outlines the objectives of SOFF evaluations at both fund and project levels. At each level, evaluations are defined by their timing, intended users, and the way findings are applied to guide decision-making and adaptive management.

At fund level

The objective of evaluation for SOFF at the fund level is to provide an independent assessment of SOFF for the purpose of continuous learning and accountability based on the international assessment criteria described in the OECD⁵.

SOFF evaluations will focus on outcomes, understood as the short- and medium-term changes that result from project outputs. These include not only measurable results but also shifts in institutional practices and behavioural capacities that contribute to sustained improvements. (OECD, 2023)⁶.

The SOFF Secretariat prepares the terms of reference for each evaluation, which are then approved by the Steering Committee.

At project level

SOFF evaluations assess how well interventions deliver their planned outputs and outcomes across all three phases of support. They are guided by the OECD DAC criteria and include gender integration as outlined in the [SOFF Gender Action plan](#). Evaluations focus on outputs—such as products, goods and services—and on short-term changes that contribute to longer-term outcomes.

Evaluation methods

The following methods have been applied and will continue to be used and refined throughout SOFF operations to support evaluation:

At fund level

- **Independent External Review**

In July 2023, the SOFF Steering Committee commissioned an Independent External Review to assess SOFF's design and early implementation. The review was submitted for consideration and endorsement at the Committee's 6th meeting in November 2023. It found SOFF to be highly relevant, transparent, and effective; the best viable option for countries to upgrade, maintain, and operate observation systems sustainably; and a foundation for attracting additional partner investments. (reference [Decision 7.2](#)).

- **Independent External Evaluation⁷**

According to the SOFF [Terms of Reference](#), an independent external evaluation will be conducted at the end of the first implementation period to assess the effectiveness,

⁵ OECD (2021) Applying evaluation criteria thoughtfully. OECD. Available at: https://www.oecd.org/en/publications/applying-evaluation-criteria-thoughtfully_543e84ed-en.html (accessed 29 June 2025).

⁶ OECD (2023c). Evaluation Systems in Development Co-operation 2023. OECD Publishing, Paris. https://www.oecd.org/en/publications/evaluation-systems-in-development-co-operation-2023_a255365e-en.html

⁷ The evaluation of an intervention conducted by entities or individuals outside the funding and implementing organisations (OECD, 2023)

efficiency, relevance, and sustainability of SOFF operations and results. With the extension of the First Implementation Period to June 2027, the Steering Committee decided to capture lessons learned, commission the evaluation, and develop the Monitoring, Evaluation and Learning (MEL) and Compliance-phase frameworks ([Decision 11.3](#)). The SOFF Gender Action Plan ([Decision 3.3](#)) also requires that gender sensitivities be explicitly addressed in all evaluations.

- **Impact Reports**

Impact reporting has been central to SOFF's approach from the outset, formally embedded in its work programme and budget to ensure that value is measured and demonstrated from inception. Guided by Steering Committee [Decision 6.8](#), WMO/ECMWF-led impact experiments have evaluated different GBON implementation scenarios and their effect on global forecasting skill. By simulating the addition of new data from under-observed regions, these experiments quantified significant improvements in forecast accuracy both locally and globally, providing rigorous evidence of GBON's value.

At its 11th meeting, the Steering Committee welcomed these results as the strongest scientific evidence to date of the benefits of targeted GBON investments. It requested broad communication of findings and proposals for a potential third phase of impact work, to be considered at the 12th meeting (Decision 12.3). Impact reports thus serve as a key instrument of SOFF's impact evaluation.⁸

At project level

- **Readiness phase**

The SOFF Readiness Funding Request requires that both the beneficiary country and the prospective Implementing Entity evaluate the quality of support provided by the Peer Advisor at the end of the Readiness Phase. Although stipulated in the agreement, this evaluation has not been implemented for several completed phases. The SOFF Secretariat will therefore ensure it is applied retroactively to completed phases and systematically to all future Readiness Phase closures.

- **Investment phase**

⁸ An evaluation that assesses the degree to which the intervention meets its higher-level goals and identifies the causal effects of the intervention. Impact evaluations may use experimental, quasi-experimental and non-experimental approaches (OECD, 2023)

Implementing Entities (IEs) are responsible for project evaluations⁹, following their own procedures while also adhering to the SOFF Results Framework and the requirements set out in their approved SOFF Investment Funding Request.

- **Compliance phase**

The Compliance Phase framework is being developed during the extension period (see consultation document on the Compliance Phase). Its evaluation component will be designed at a later stage, once the framework is finalized.

A1.6 Learning

Objectives of learning for SOFF

SOFF's learning function promotes continuous improvement, adaptive management, and global knowledge exchange among countries, Implementing Entities, Peer Advisors, and partners. Learning is embedded across reporting, evaluations, technical assistance, and stakeholder dialogues coordinated by the Secretariat, covering technical, institutional, and cross-cutting areas, including gender integration.

The Secretariat will capture and share knowledge on three priority themes: operational lessons learned across all phases (Readiness, Investment, Compliance); innovations in delivery and private-sector engagement; and technical evidence to support sustained GBON compliance.

Learning methods

The following learning methods are in use and will continue to be refined throughout SOFF operations to support monitoring, evaluation, and learning:

At fund level

- **Steering committee documents**

In close coordination with WMO technical authorities, Implementing Entities, NMHS Peer Advisors, recipient countries, and the Advisory Board, the SOFF Secretariat continuously gathers implementation evidence and lessons learned. These insights are regularly synthesized into Steering Committee documents to inform and guide decision-making.

- **Peer Advisor and Implementing Entity workshops**

SOFF Peer Advisor and Implementing Entity workshops are organized to foster collaboration, learning, and operational improvement across delivery partners. They

⁹ Evaluation of an individual intervention designed to achieve specific objectives within specified resources and implementation schedules, often within the framework of a broader programme, examining its relevance, coherence, effectiveness, efficiency, impact and sustainability (OECD, 2023).

strengthen the SOFF community, enhance technical alignment, and contribute to fund-level learning by capturing insights that inform future programming.

At project level

- **Webinars**

SOFF gathers lessons learned through webinars organized by the Secretariat—often with the WMO Technical Authority—as well as through regional workshops with countries, Implementing Entities, and Peer Advisors, and through collaboration with the private sector (e.g. the Association of the Hydro-Meteorological Industry, HMEI).

- **Regional Workshops**

SOFF has convened regional workshops in the Pacific, Africa, and South Asia, bringing together countries, regional actors, and partners to share experiences, identify challenges, and co-develop solutions. These workshops have proven cost-efficient and valuable and should continue, with lessons systematically captured and documented.

- **Moodle Platform**

SOFF has expanded its online learning through a dedicated Moodle platform that hosts forums, interactive modules, recorded webinars, procurement guidance, and country case materials, enabling peer exchange and training. The [SOFF Moodle platform](#) is open to all, though access to discussion forums is limited to registered Peer Advisors and Implementing Entities.

- **SOFF Knowledge Center**

As a further evolution, SOFF could explore the creation of a membership-based digital Knowledge Center as a single-entry point for its community of practice and wider coalition of partners. Such a platform would provide interactive access to curated libraries, e-learning modules, and discussion forums, while also hosting purpose-specific digital communities and regular virtual events. Advanced features could support member engagement through personalized content, newsletters, and peer-to-peer networking, as well as analytics to track participation and learning outcomes. Over time, the Knowledge Center could become a central hub for collaboration, knowledge exchange, and continuous capacity building across the SOFF partnership.

Annex 2: Benchmarking of MEL Frameworks of Other Five Climate Funds

MEL Component	CREWS	Green Climate Fund (GCF)	Global Environment Facility (GEF)	Adaptation Fund (AF)	Climate Investment Funds (CIF)
Organizational documents referenced	CREWS Results framework, CREWS Theory of Change	Theory of change, GCF investment framework, GCF results management framework, performance measurement frameworks, GCF environmental and social management system, risk management framework,	Results-based Management Framework	Results-based Management Framework	Integrated results frameworks
MEL Framework/ Policy Document	CREWS Operational Procedures Note No2 Monitoring and Evaluation	Evaluation policy for the GCF, Monitoring and accountability framework for Accredited Entities	Evaluation policy for the GCF, Monitoring and accountability framework for Accredited Entities	Evaluation Framework	CIF Monitoring, Evaluation, And Learning (MEL) Policy and Guidance
Evaluation Criteria	OECD (DAC) + Gender equality + People-centered	OECD (DAC) + Gender equity + Country Ownership of projects + Innovativeness + Replication and scalability + Unexpected results both positive and negative	OECD (DAC)	OECD (DAC)	OECD (DAC)
	Type: Initial phase external evaluation (2022) Level: Fund	AE monitoring: AEs self-assessment Level: AE	Type: Comprehensive Evaluation Level: Fund	Type: Mid-term Evaluations Level: Project Who Evaluates:	Type: midterm evaluations Level: Project Who Evaluates: E&L initiative

Evaluation Approach	Who Evaluates: External Frequency: Once	Who Evaluates: AE Frequency: Annually	Who Evaluates: GEF Independent Evaluation Office Frequency:	Independent consultants Frequency: Mid implementation	Frequency: 5–7 years into CIF program implementation
	Type: independent evaluations (midterm-review) Level: Portfolio Who evaluates: Independent Frequency: open	Type: mid-term review Level: AE Who evaluates: Secretariat Frequency: Mid-term accreditation period	Type: Project, program, country cluster, thematic, cross-cutting, impact process, and performance evaluations Level: Project Who Evaluates: GEF Independent Evaluation Office, GEF Agencies evaluation units Frequency: Depends on project	Type: Final Evaluations Level: Project Who evaluates: Independent of IE Frequency: Project end	Type: end-of-term evaluations Level: Project Who evaluates: E&L Initiative Frequency: 8–12 years into CIF program implementation
	Type: Formative evaluation (mid-term or process evaluation) Level: Project Who evaluates: (Internal) IE (external) From M&E plan by IE using template provided by CREWS	Type: Interim evaluation Level: Project Who Evaluates: AE (Independent) Frequency: as agreed by AE and GCF		Type: Implementing entities evaluation Level: Project Who evaluates: AF board Frequency: open	Type: independent evaluation Level: Fund Who evaluates: Trust Fund Committee Frequency: At request
	Type: Final evaluation Level: Project Who evaluates: IE (external)	Type: Final evaluation Level: Project Who Evaluates: AE (Independent) Frequency: as agreed by AE and GCF		Type: Adaptation Fund Level Evaluation Level: Fund Who evaluates: Conference of the Parties/ Frequency: At request	

	Type: Impact evaluation Level: Project Who evaluates: IE (external) Frequency: at request	Type: Independent evaluation Level: Fund Who evaluates: Independent Evaluation Unit Frequency: In time for board meeting			
		Type: Secretariat led evaluations Level: Fund/Project Who evaluates: Secretariat Frequency: at request			
Monitoring and Reporting	Type: Project status report Level: Project Who reports: IE Frequency: Annual	Type: Annual performance reports Level: Project Who reports: AE Frequency: Annually	Type: Annual Portfolio monitoring reports, tracking tools, Project and implementation reports, midterm reviews Level: Project Who reports: GEF Secretariat, GEF Agencies Frequency: Depends on project/Program	Type: annual portfolio and progress towards-results report Level: Project Who reports: Adaptation Fund Secretariat Frequency: annual	Type: annual program results reporting Level: Project Who reports: MDBs Frequency: Annual
	Type: Portfolio Annual Report Level: Portfolio Who reports: Secretariat Frequency: Annually	Type: Secretariat may decide to undertake additional ad hoc checks Level: Project Who reports: Secretariat Frequency: Open			Type: project completion report Level: Project Who reports: MDBs Frequency: project completion
	Type: Project final report Level: Project				Type: annual country results reports Level: Project Who reports: Country

	Who reports: IE Frequency: project completion				When: Annual
Alignment	Sendai Framework, Paris Agreement, SDGs and EW4All	UNFCCC/COP		Kyoto protocol	Kyoto protocol
Stakeholder Engagement in MEL	Participatory stakeholder consultations towards the development of a robust MEAL	Independent evaluations done in consultation with other relevant GCF stakeholders.	developed through a consultative process with GEF partners	engage with relevant CSOs to ensure that their views and perspectives are heard and considered in the evaluation.	Participatory MEL encouraged, incl. multilateral development banks
Gender and Social Inclusion in MEL	Gender disaggregation for the indicators will be applied where possible	Gender included as an evaluation criteria	Gender equality is one of the principles of GEF evaluation	Gender and social inclusion	MEL aligned with the CIF Gender Policy ⁷
MEL Budgeting and Resourcing	Project MEL budgets covered in project M&E plans by Implementing Entities	Evaluation budgets are to 2- 5% of project budget. Independent Evaluation unit budget should not exceed 1% of the GCF programming envelope. Secretariat evaluations are 1-2% of the secretariat administrative budget	budgetary planning of the IEO, the Agency fee system, and project and program budgets.	Project MEL budgets covered in project M&E plans	Evaluation budget included in project budgets

Annex 3. Roles and responsibilities

Readiness Phase	
Role	Monitoring
Steering Committee	Approves readiness funding requests
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.
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 Peer Advisors.
Peer Advisors	- Are accountable to the beneficiary country. - In dialogue with the beneficiary country, provide independent technical advice, analysis and recommendations to support the beneficiary country in implementing the activities of the Readiness phase. - Develop the Readiness phase outputs and are responsible for their quality and timely delivery. Communicate regularly and timely with the beneficiary country and the Implementing Entity. - Engage with the civil society, including on the identification of stakeholders of relevance for GBON implementation.

	• Submit the final report with the Readiness phase outputs to the country for comments and to the prospective Implementing Entity for feedback. • Submit the final report including the beneficiary country's comments and the prospective Implementing Entity's feedback to the SOFF Secretariat. • Notify 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 Entities	• Participate in the Readiness phase activities and collaborate 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. • Contribute to the definition of the Terms of Reference and provides feedback on the outputs delivered by the Peer Advisor.
Country	• 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.
Readiness Phase	
Role	Evaluation
SOFF Secretariat	Provides Evaluation form to the Country and Implementing Entities for evaluation of peer advisory services. Reviews Evaluation forms submitted by country and Implementing Entities

WMO Technical Authority	Signs off approved readiness outputs
Peer Advisors	In Collaboration with Country, sign off approved readiness outputs
Implementing Entities	Evaluate the quality of support received from the Peer Advisor at the end of the Readiness phase using form provided by the SOFF Secretariat
Country	Evaluates the quality of support received from the Peer Advisor at the end of the Readiness phase using form provided by the SOFF Secretariat
Readiness Phase	
Role	Learning
SOFF Secretariat	Activities are ongoing via SOFF's Moodle platform where SOFF Secretariat facilitates the exchange of knowledge and experiences and captures lessons learned.
Implementing Entities	Based on its experience in the beneficiary country, support the work of the Peer Advisor, e.g. by sharing its knowledge and facilitating access to the network of relevant stakeholders.

Investment Phase	
Role	Monitoring
Steering Committee	Approves Funding Requests
SOFF Secretariat	- Facilitates communication, coordination and collaboration between the beneficiary country, the Implementing Entity, the Peer Advisor and WMO Technical Authority. - Reviews the SOFF Investment Phase funding request, including the Terms of Reference for the provision of technical advisory services and provides feedback as needed. Then transmits the funding request to the SOFF Steering Committee for their decision. - Compiles quarterly updates and annual reports and monitors implementation based on information received from the Implementing entity, the Peer Advisor and the beneficiary country. Regularly informs the Steering Committee of progress.

	- Coordinates regional implementation approaches to the SOFF Investment Phase. - Confirms receipt of the final report by the Implementing Entity and completion of the Investment Phase based on WMO verification of data sharing.
UNMPTF	Funds disbursement as approved by the SC
WMO Technical Authority	- Provides basic on-demand technical assistance to the beneficiary country, Implementing Entity and Peer Advisor on GBON regulations, including on monitoring and assessing the data-sharing status of the stations using the WDQMS web tool¹ - Is responsible for the verification of data sharing of the new or rehabilitated surface and upper -air stations as per GBON regulations. - Provides a verification report to the SOFF Secretariat, upon which the Investment Phase can be considered completed. - Establishes and administers the pass-through mechanism for contracting and funding of the advisory services provided by the Peer Advisors.
Peer Advisors	- Are accountable to the beneficiary country and the Implementing Entity. Are contracted via the WMO pass-through mechanism and operate on a cost-recovery basis. - Provide technical advisory services to support beneficiary countries and Implementing Entities in the design and implementation of the SOFF Investment Phase activities and report on potential practical impediments. - Contribute to the final report of the SOFF Investment Phase.
Implementing Entities	- Prepares the Investment Phase funding request in collaboration with the beneficiary country and the Peer Advisor, including the Terms of References for the provision of technical advisory services during the SOFF Investment Phase. - Manages the Investment Phase activities following the terms specified in the funding request and in collaboration with relevant national partners, including civil society organizations. - Delivers the Investment phase outputs and is responsible for their quality and timely delivery, in coordination with the country and the Peer Advisor.

	- Provides quarterly updates to the SOFF Secretariat according to a simple standardized form and annual reports according to the United Nations Multi-Partner Trust Fund Office's reporting requirements indicated in the legal agreements. - Informs the SOFF Secretariat of circumstances that could materially impede the implementation of the Investment phase or any considerable deviation in the conditions of the funding request to achieve its objectives. - Submits the final report to the SOFF Secretariat including the beneficiary country's comments and the Peer Advisors' feedback. The final report describes the institutional arrangements to secure sustained operation and maintenance of the investments made.
Investment Phase	
Role	Evaluation
Steering Committee	Commissions Evaluations
SOFF Secretariat	Confirms receipt of the final evaluation report by the Implementing Entity
Implementing Entities	Conduct the final evaluation of the project upon completion and submit the final evaluation report to SOFF
Investment Phase	
Role	Learning
SOFF Secretariat	Activities are ongoing via SOFF's Moodle platform where SOFF Secretariat facilitates the exchange of knowledge and experiences and captures lessons learned.
Peer Advisors	Provide information on milestones and challenges of project progress through the submitted annual and semi-annual reports.
Implementing Entities	Provide information on milestones and challenges of project progress through the submitted annual and semi-annual reports.
Compliance phase	
Details to be defined following completion of the Compliance document.	