

ANNUAL PROGRAMME NARRATIVE PROGRESS REPORT

REPORTING PERIOD:

1 JANUARY – 31 DECEMBER 2024

Systematic Observations Financing Facility

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1. Executive Summary

Steering Committee Approved \$36 Million Investment Phase Funding Requests

In 2024, SOFF strengthened its portfolio and focused on implementation of SOFF investments to accelerate progress in countries. The Steering Committee (SC) convened three times, making key decisions at its 7th, 8th, and 9th meetings. In March, the SC approved USD 36 million in Investment funding for Bhutan, Cabo Verde, Ethiopia, Solomon Islands, and Tanzania. In June, Chad and Uganda were approved, with five additional countries conditionally approved. In October, the SC welcomed the results of the first phase of the SOFF Impact Studies by the European Centre for Medium-Range Weather Forecasts (ECMWF) and endorsed enhanced roles for the World Meteorological Organization (WMO). At the 8th meeting, Dr. Sinéad Walsh, Climate Director of Ireland's Department of Foreign Affairs, was appointed SC Co-Chair, representing the funders.

66 Countries Actively Engaged with 23 Countries Successfully Completing Readiness Phase Deliverables

By 2024, SOFF's portfolio of programmed countries expanded to 66 countries. While no new Readiness funding approvals were made that year, focus shifted toward execution, with 23¹ countries having completed the Readiness phase. These countries made substantial progress on key deliverables namely the GBON National Gap Analysis, National Contribution Plan, and Hydromet Diagnostics, supported by 20 active peer advisors and seven active Implementing Entities under WMO's technical oversight. Over 130 Readiness outputs were reviewed and verified by the WMO technical authority.

13 Countries Secured Investment Phase Funding

Thirteen countries received SOFF Investment phase funding by 2024, up from six in 2023. Of these, nine received their first disbursements, while others await finalization of legal arrangements. Five additional Investment Phase funding requests were conditionally approved. Annual and semi-annual progress reports submitted by countries show notable progress, including project launches, institutional setup, procurement preparations, implementation measures for WMO Information System 2.0 (WIS2.0), and collaborative stakeholder engagement. Countries also advanced in areas of gender inclusion, grievance mechanisms, safeguards application, and resource mobilization through alignment with initiatives like Green Climate Fund (GCF), Climate Risk and Early Warning Systems (CREWS), and Early Warnings for All (EW4All).

Strengthening the SOFF Community of Practice through Regional Workshops and knowledge exchange

In 2024, SOFF organized regional workshops in Africa, South Asia, and the Pacific, convening operational partners, regional organizations, and development and climate

¹ Status as reported in the [INF 9.1 SOFF Portfolio and Implementation Progress report](#)

finance institutions to review progress, explore regional opportunities, and coordinate support for systematic observation. These workshops reinforced institutional partnerships, promoted gender-inclusive approaches, and advanced dialogue with civil society and the private sector. Complementing these efforts, the SOFF Peer Advisor and Implementing Entity Workshop was hosted by the Netherlands at the Royal Netherlands Meteorological Institute (KNMI) Office, with the aim to share lessons learned and knowledge between SOFF operational partners.

SOFF Formalized Key Strategic Partnerships at COP29

At COP29, SOFF strengthened partnerships to close climate data gaps. The High-Level Event on “Sustained Climate Finance for Systematic Observation” gathered senior leaders to highlight the value of basic weather and climate data, announce donor pledges, and launch the SOFF Action Report 2024. SOFF formalized key partnerships, including a Letter of Intent with the African Development Bank to address Africa’s urgent data needs and an agreement with the Weather Ready Pacific Programme to support climate resilience in the Pacific. At Earth Information Day, SOFF called for a new equitable partnership with developing countries—recognizing their essential contributions to global forecasting. These efforts expand upon SOFF’s COP28 collaboration framework with major climate funds to leverage support for GBON implementation.

2. SOFF governance

2.1. SOFF Steering Committee and Advisory board

During 2024, the [6th](#), [7th](#), and [8th](#) SOFF Advisory Board meetings were held to provide recommendations and advice to the SOFF Steering Committee, particularly on technical and operational aspects.

In March, the [7th Steering Committee](#) meeting approved Investment funding requests for Bhutan, Cabo Verde, Ethiopia, Solomon Islands, and Tanzania, totalling USD 36 million. Additionally, the first SOFF Independent External Review was endorsed, highlighting SOFF's relevance, transparency, and effectiveness.

The [8th Steering Committee meeting](#) was held in person in Reykjavík, Iceland, on 18–19 June 2024, hosted by the Icelandic Ministry of Foreign Affairs. The meeting marked significant progress, with the announcement of an additional USD 14.7 million pledged by Austria, Belgium, Iceland, and the Nordic Development Fund, bringing SOFF’s total resources mobilized to USD 94 million within its first two years. Key outcomes of the meeting included the approval of USD 13.2 million in Investment funding for Chad and Uganda, conditional approval for five more countries pending further resource mobilization, and the programming of Niue, Cook Islands, Guinea, and Sierra Leone for SOFF support, expanding the facility’s reach to 66 beneficiary countries.

In October, the [9th Steering Committee](#) convened virtually, welcoming the results of the first phase SOFF Impact Studies prepared by the European Centre for Medium-Range

Weather Forecasts (ECMWF) and acknowledging the World Meteorological Organization's (WMO) enhanced role in SOFF. The committee encouraged further regional collaboration and partnerships and requested the development of a Green Climate Fund – SOFF Fragile and Conflict-Affected States Accelerator Programme.

Furthermore, Dr. Sinead Walsh, Climate Director at Ireland’s Department of Foreign Affairs, was appointed as Co-Chair of the SOFF Steering Committee. This appointment followed the Nordic Development Fund's co-chairing with WMO for two years.

Next, the Steering Committee scheduled its 10th meeting to be held virtually in February 2025, and its 11th meeting in a hybrid format in Dublin, Ireland in May 2025.

2.2. SOFF Secretariat

The SOFF Secretariat is accountable to the SOFF Steering Committee and operates under its overall guidance. It is hosted by the World Meteorological Organization (WMO) and follows WMO financial and staff regulations and rules with respect to all administrative policies and procedures. Below is the composition of the SOFF Secretariat

Composition

| | |
|---|--|
| Director | Markus Repnik |
| Programme Management Officer | Ana Heureux |
| Partnership Officer | Mario Peiró Espí |
| Programme Officer | Serena Odianose (until November 2024) |
| Scientific Programme Officer | Zulkarnain |
| Associate Coordination Officer | Anjeline Odialla |
| Associate Advocacy and Communications Officer | Pauline Trepczyk |
| Associate Programme Officer | AJ Untalan |
| Assistant Programme Officer | Tshering Lhamo |
| Data Analyst (50% position) | Ha Young Lee |
| Data Management Consultant | Zarifou Djibril |
| Communications and Partnership Intern | Anaëlle Deneuve |
| Operations Intern | Rebecca Nambooze |
| Global Facilitators | Johannes Linn Laura Tuck Khadeeja Naseem |

The SOFF Secretariat work plan and budget for the SOFF First Implementation Period can be viewed [here](#).

3. Evolution of SOFF Portfolio

In 2022, SOFF established its governance structure and operational framework. This included the development of the Operational Manual and key programmatic documents and defined the work plan for the first implementation period.

In 2023, 60 countries had their Readiness funding requests approved by the SOFF Steering Committee through Decisions 4.3, Decision 5.3, Intersessional Decision 1.1, and Decision 6.2.

In 2024, the number of programmed countries increased to 66. While no new Readiness funding request approvals were made in 2024, the focus shifted towards supporting implementation.

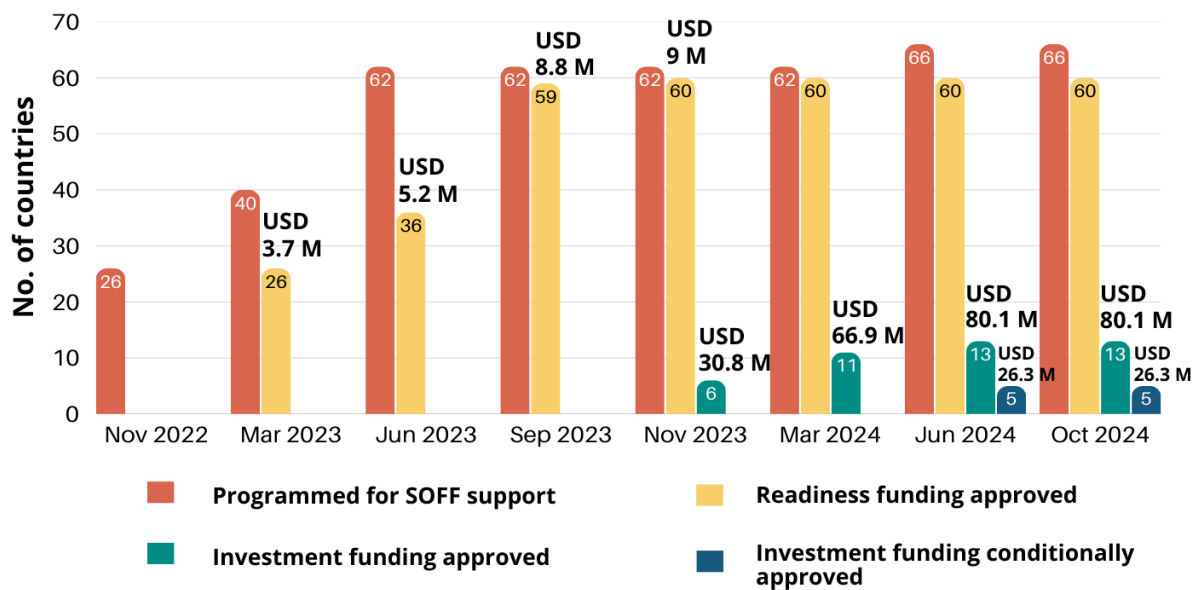


Figure 1: Overview of the evolution of the SOFF portfolio since the November 2022 Steering Committee. The number of countries at each phase are represented by bars according to the legend (bottom) and the amount approved in USD displayed in text.

3.1. SOFF Readiness phase

The SOFF Readiness phase provides technical assistance for the development of the Global Basic Observing Network (GBON) National Gap Analysis, National Contribution Plan, and the Country Hydromet Diagnostics. As of 2024, Readiness funding for 60 countries were approved in three batches.

First batch

The first batch of SOFF Readiness funding requests were approved for 26 countries through [Decision 4.3](#). Out of these 26 countries, 18 completed their Readiness phase. A more detailed progress is shown in Figure 2 below.

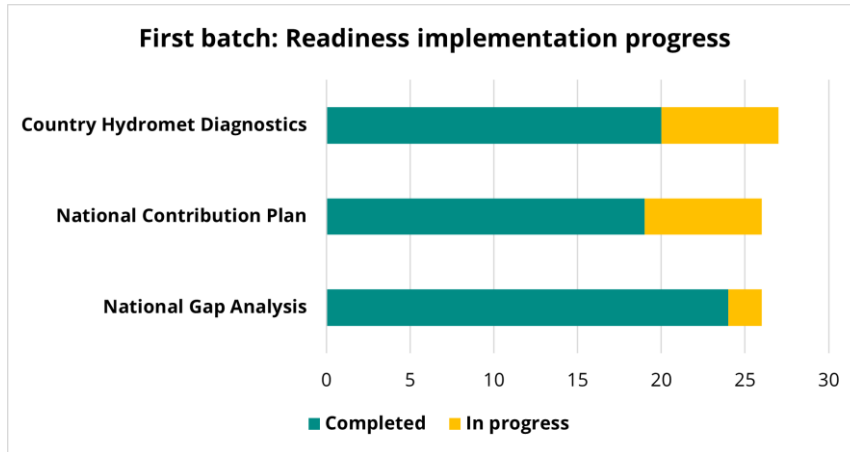


Figure 2: First batch Readiness implementation progress

Second batch

10 countries had their Readiness funding requests approved in June 2023 through [Decision 5.3](#). Out of these, 4 completed their Readiness phase while the others are ongoing as shown in Figure 3 below.

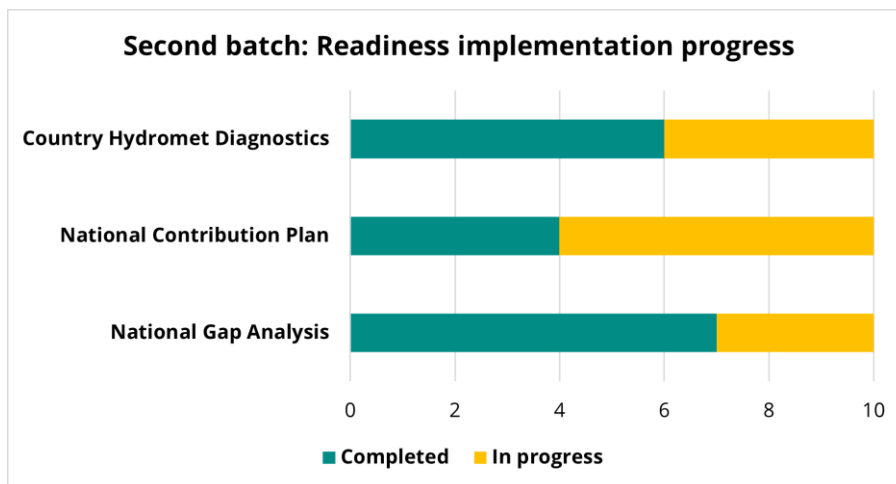


Figure 3: Second batch Readiness implementation progress

Third batch

In the third batch, 23 countries had their Readiness funding requests approved through [Intersessional Decision 1.1](#) in September 2023. Progress of these countries are shown in Figure 4 below.

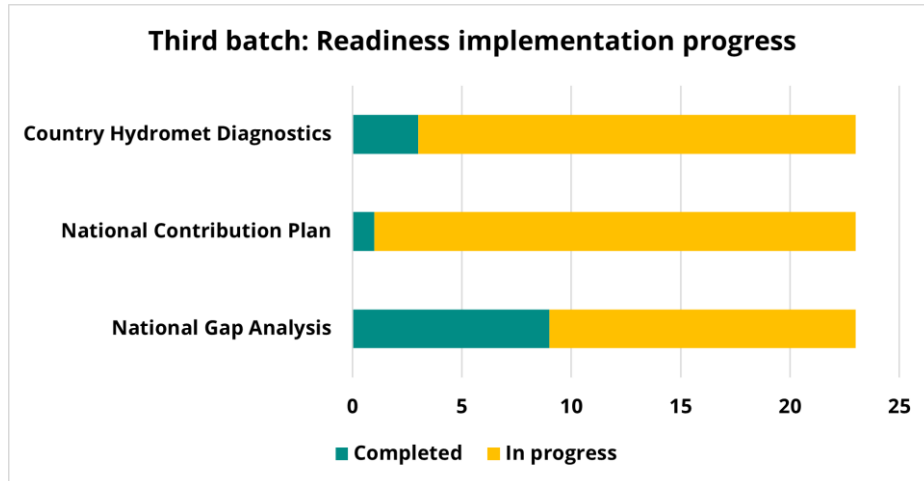


Figure 4: Third batch Readiness implementation progress

Additional Readiness funding requests

The Readiness funding request for Haiti was programmed together with the third batch of countries, however the funding request was only approved in November 2023 through [Decision 6.2](#) due to delays in the submission of the funding request. Additionally, works only began in June 2024 due to the situation in the country that does not allow for the implementation to start immediately.

Significant progress was achieved in the implementation of the Readiness phase.

All 60 countries with Readiness funding approved made significant progress in completing their Readiness phase deliverables. These deliverables as outlined in the SOFF Operational Manual include GBON National Gap Analysis², GBON National Contribution Plan³, and the Country Hydromet Diagnostic⁴. Implementation was supported by 20 active peer advisors (advanced National Meteorological and Hydrological Services), 7 active Implementing entities (UN organizations and Multi-lateral Development Banks) with technical oversight from the WMO technical authority. By 2024, the WMO had reviewed and screened more than 130 Readiness outputs.

The following figures provide an overview of the breakdown of SOFF Readiness phase implementation. Figure 5 highlights the regional breakdown of the 60 countries with Readiness funding approved. More comprehensive information is available on the [SOFF dashboard](#).

² The GBON 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

³ 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 observing network.

⁴ The Country Hydromet Diagnostics is offered on a demand basis (not mandatory) to beneficiary countries and IE.

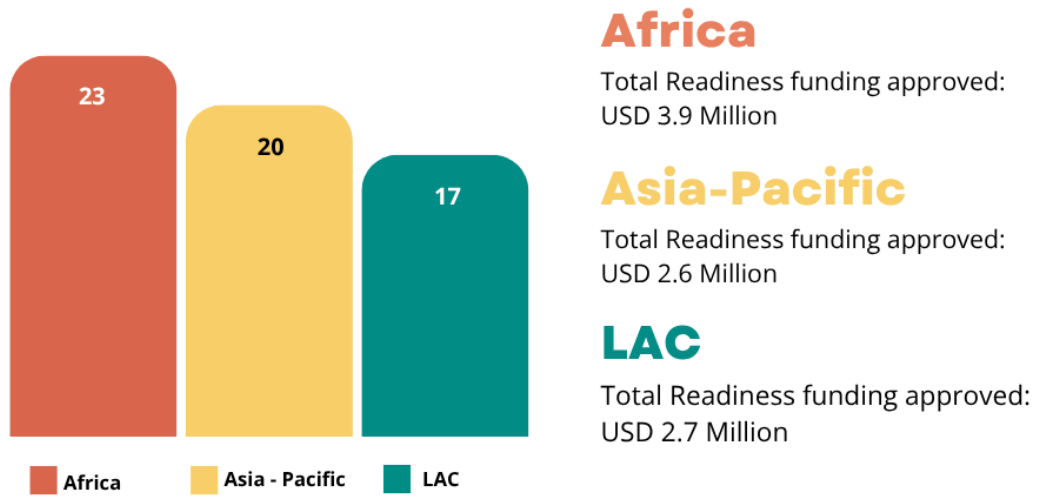
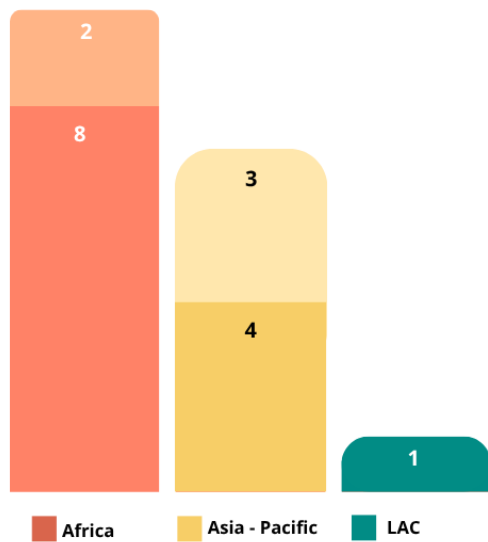


Figure 5: Regional distribution of the 60 countries receiving Readiness support.

3.2. SOFF Investment phase

The number of countries with approved Investment Phase funding increased from 6 in 2023 to 13 in 2024, through [Decisions 6.3](#) (2023), [Decision 7.3](#) (2024), and [Decision 8.4.1](#) (2024). Additionally, five countries received conditional Investment funding approval in 2024 under the same [Decision 8.4.1](#). Among the 13 countries with approved Investment funding, disbursements for the first tranche were made to 9 countries. The remaining four are awaiting the finalization of legal agreements and fulfilment of administrative requirements with the UNMPTF. Disbursements for the five countries with conditional Investment funding will proceed in accordance with the procedures outlined in [Decision 8.4.1](#).

The regional distribution of the Investment phase funding requests is summarized in the figure below.



Africa

Total Investment funding approved (8):
USD 55 Million
Total Investment funding conditionally approved (1):
USD 3.9 Million

Asia-Pacific

Total Investment funding approved (5):
34.9 Million
Total Investment funding conditionally approved (2):
USD 12.2 Million

LAC

Total Investment funding approved (1):
USD 0.8 Million

Figure 6. Regional distribution of countries receiving Investment support. Countries with conditionally approved Investment funding requests are represented in the lighter shade.

Ten countries, Bhutan, Cabo Verde, Chad, Ethiopia, Kiribati, Maldives, Mozambique, Rwanda, Solomon Islands, and Tanzania submitted annual reports that covered activities from the start of implementation until March 2025, detailing progress under the SOFF Investment Phase. The country reports highlight good progress by SOFF-supported countries with strategies tailored to local contexts. Key updates from these countries include project launching, setting up of Project Management Units, institutional strengthening, building collaborative partnerships, and preparing tenders for procurement of relevant infrastructure and data sharing software, including for the implementation of WIS2.0. Most of the countries are currently in the procurement phase, reflecting progress in setting up their GBON networks. Figure 7 below summarizes the progress made in implementing key activities across all Investment Phase countries and the following sections present updates on engagements with the civil society and the private sector; social and environmental safeguards; grievance redress mechanisms; leveraging opportunities; and gender inclusion.

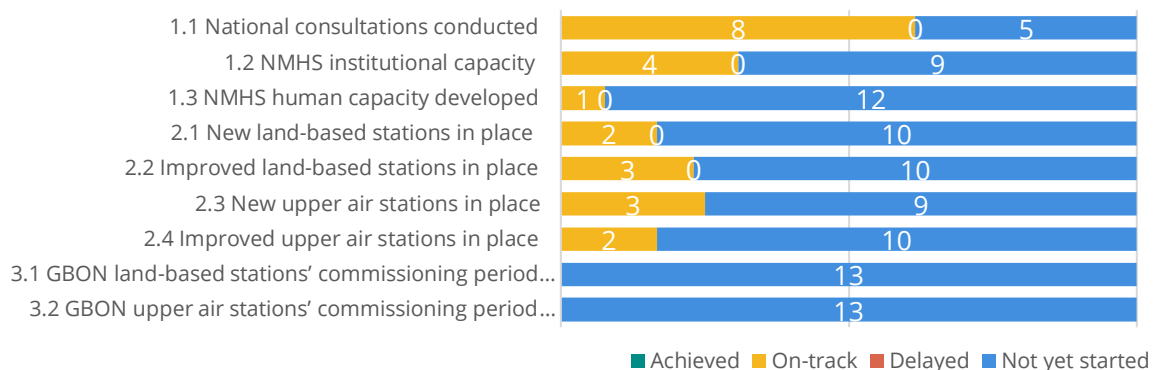


Figure 7. Summary of status of implementation in countries under Investment phase.

Engaging Civil Society and the Private Sector

Several countries have actively engaged civil society and the private sector in various stages of their projects. In Bhutan, civil society, academic institutions, and private sector suppliers are integrated into procurement planning and knowledge exchange. Cabo Verde involves municipal associations, NGOs, and private companies like CVTelecom and NOSI in project planning. In Chad, civil society organizations and private sector stakeholders participate during the launch and planning phases. Kiribati is planning future collaboration with civil society and private sector partners.

Ethiopia utilizes state-operated infrastructure, with minimal private sector involvement, focusing on procurement and awareness campaigns. The Maldives primarily focuses on private sector involvement in procurement planning, with broader participation expected in later phases. In Rwanda, the private sector is involved in aviation, and civil society is consulted for input. Solomon Islands builds upon previous partnerships with CSOs and the private sector to enhance project implementation. Tanzania involves private sector contractors in the construction activities of its weather stations.

Social and Environmental Safeguards

Countries have implemented a variety of social and environmental safeguards to ensure the sustainability of their projects. Bhutan and Cabo Verde both adhere to UNEP's Environmental and Social Safeguards Framework (ESSF), with Bhutan including community consultations as part of its approach. Chad follows the World Food Programme's safeguards to minimize environmental impact and ensure community engagement. In Kiribati, UNEP's ESSF is applied during the planning phase, with site-specific safeguards being reviewed during technical assessments.

Ethiopia adopts UNDP's Social and Environmental Standards (SES), incorporating risk screening, mitigation measures, and sustainable practices such as using renewable energy and reducing emissions. The Maldives aligns with UNEP's ESSF as well as local regulations for procurement and installation, focusing on environmental best practices. Rwanda ensures compliance with environmental standards, including the use of biodegradable materials. Solomon Islands applies UNDP's SES and has mechanisms in place to ensure compliance, while Tanzania conducts Environmental Impact Assessments (EIAs) to avoid project impacts in environmentally sensitive areas.

Grievance Redress Mechanisms

Bhutan, Cabo Verde, Kiribati, and the Maldives follow the United Nations Environment Programme (UNEP) Sustainability Framework. Stakeholders in these countries can file complaints through the Stakeholder Response Mechanism (SRM), managed by the Independent Office for Stakeholder Safeguards and Response (IOSSR), using online forms, email, or mail. In Bhutan, the National Center for Hydrology and Meteorology (NCHM) has also established a dedicated grievance mechanism accessible through its

official website. Chad uses the World Food Programme's (WFP) standard complaint mechanisms. Ethiopia has established a grievance redress mechanism focused on social and environmental complaints. In Ethiopia, an email address is listed on the UNDP country office website to receive complaints.

No formal grievances have been reported in any of the countries to date, but Implementing Entities will continue to report on grievances and incidents through the semi-annual and annual reports.

Leveraging Opportunities

Countries are employing various mechanisms to leverage additional resources in support of their climate resilience and early warning efforts. The following are selected examples:

Bhutan benefits from co-financing through the Green Climate Fund (GCF) and the World Bank's Climate Resilience Program. Cabo Verde utilizes the University of Twente's Geonetcast system to strengthen its early warning capabilities. In Chad, the World Food Programme (WFP) and GeoSphere Austria have clearly mapped out ongoing investments in the area and designed SOFF funding requests based on existing investments, building on initiatives such as the Climate Risk and Early Warning Systems (CREWS) and Early Warning for All (EW4All).

Ethiopia has secured USD 13 million through UNDP and GCF to enhance early warning systems and ensure SOFF investments benefit the entire EW value chain. The Maldives aligns its SOFF activities with UNEP's GCF-funded project and is developing a GCF project focused on marine meteorological stations, complementing SOFF efforts. Rwanda benefits from several initiatives, including the Volcanoes Community Resilience Project, Strengthening Early Warning and Early Action (SEWAA), and CREWS East Africa. The Solomon Islands participates in EW4All and the Weather-Ready Pacific programme, which SOFF has signed a collaboration agreement to ensure leveraging of investments.

Mozambique has received funding from the Norwegian Agency for Development Cooperation (NORAD), the European Civil Protection and Humanitarian Aid Operations (ECHO), the Foreign, Commonwealth & Development Office (FCDO), and the World Meteorological Organization (WMO). These funds support the implementation of the Programme for Risk Information and Early Warning Systems (PRISM), the development of anticipatory action triggers, and the enhancement of the Flash Flood Guidance System. Tanzania receives co-funding from the Government of Tanzania, with SOFF supporting the country's EW4All activities.

Gender inclusion

Countries are advancing gender inclusion through various targeted activities. Mozambique has scheduled a gender awareness workshop for INAM staff in Year 2 to explore how women perceive climate information and to integrate gender considerations into SOFF operations. During stakeholder engagement, civil society organizations focused

on women's empowerment—Associação de Mulheres, Género e Desenvolvimento (MuGeDe), Fórum Mulheres, and LeMuSiCa (Levante-se Mulher e Siga o Seu Caminho)—were invited to the national consultation. An academy-oriented awareness event is also planned to increase interest among young women in meteorology as a career path.

Rwanda reported 60% female participation in consultations. Cabo Verde achieved 50% female participation in workshops. Bhutan reported 46% female representation in the Project Steering Committee. Chad recorded 28% female participation during the project launch, exceeding its target.

Kiribati applied gender-sensitive approaches in training. Ethiopia included gender-responsive climate governance in its activities. The Maldives is aiming for 30% female participation in training sessions. Solomon Islands is developing a Gender Action Plan. Tanzania is planning future workshops to support the inclusion of women in meteorological services.

4. SOFF regional workshops

[Intersessional Decision 2.1](#) and [Decision 9.4](#) welcomed and encouraged SOFF increased regional collaboration and partnerships.

A series of regional workshops were organized in 2024 in Africa, Asia, and the Pacific to enhance coordination, knowledge exchange, and implementation of its support to countries. These workshops served as critical platforms for bringing together national stakeholders, operational partners, development agencies, and regional institutions to address gaps in weather and climate data, align efforts with the Early Warnings for All initiative, and foster peer learning. The events focused on identifying concrete opportunities for regional implementation of SOFF investments including through sharing best practices, strengthening institutional partnerships and identifying opportunities for leveraging and coordinating investments in the region. They have also facilitated alignment with investments from other regional initiatives – a priority strongly emphasized by participating countries. These workshops remain an important platform for stakeholder consultations on key topics such as the design of the SOFF Compliance phase, gender considerations, and the engagement of civil society organizations (CSOs) and the private sector.

4.1. Pacific Regional Workshop

From 10 to 12 April 2024, SOFF, in partnership with the Fiji Meteorological Service, hosted a Pacific Regional Workshop in Nadi, Fiji, to support Pacific Island countries in closing climate and weather data gaps. The Pacific regional workshop was a key platform for aligning efforts to deliver the Early Warnings for All (EW4All) initiative across Pacific Island Countries. The workshop reinforced the importance of a Pacific-led, systematic approach to strengthening multi-hazard early warning systems, leveraging SOFF and complementary initiatives like CREWS. Regional stakeholders, including governments,

development partners, and technical agencies, discussed the implementation of the Weather Ready Pacific programme and strategies to secure sustainable funding and operational capacity for national and regional observation networks, ensuring resilience and improved early warning coverage for vulnerable island communities.



(More: [Workshop outcome document](#) and [Agreement on collaboration and complementarity between WRPP and SOFF signed at COP29 in Baku, Azerbaijan](#) and [web story](#).)

4.2. Africa Regional Workshop

From 11 to 13 September 2024, SOFF, in collaboration with the African Development Bank Climate Action Window, hosted a regional workshop in Abidjan, Côte d'Ivoire, to address Africa's significant weather and climate data gaps. The workshop brought together over 100 representatives from countries and development partners to discuss enhancing regional approaches to SOFF support and leveraging complementary funding from the African Development Bank's Climate Action Window, in support of the UN Early Warnings for All initiative. Participants emphasized the importance of peer-to-peer technical assistance, gender inclusivity, and public-private partnerships to foster innovation and efficiency in meteorological services.



(More: [Workshop outcome document](#) and [Letter of Intent between AfDB and WMO on behalf of SOFF signed at COP29](#) and [web story](#).)

4.3. South Asia Regional Workshop

From 24 – 26 September 2024, SOFF and Bhutan's National Centre for Hydrology and Meteorology co-hosted a regional workshop in Thimphu, Bhutan, focusing on closing significant weather and climate data gaps in South Asia. The workshop gathered participants from South Asian countries, SOFF operational partners, the World Meteorological Organization, and various development partners to discuss strategies for enhancing weather and climate data collection and translating this data into effective climate action. Key discussions included the importance of effective partnerships, strengthening gender inclusivity in National Meteorological and Hydrological Services, and engaging the private sector in SOFF implementation. The workshop also underscored the role of the South Asia Hydromet Forum and the potential for complementary funding from CREWS to further strengthen regional collaboration and accelerate progress toward resilient, climate-adaptive communities.



(More: [Workshop outcome document](#) and [web story](#).)

5. Building the SOFF community and knowledge exchange

Since its inception, SOFF has prioritized the creation of a structured community of practice to support sustained and technically sound implementation of the Global Basic Observing Network (GBON). In 2024, this effort translated into a series of targeted initiatives designed to enhance collaboration, knowledge exchange, and technical alignment among key stakeholders—beneficiary countries, peer advisors, Implementing Entities, and the WMO as technical authority.

Key activities included the **SOFF Peer Advisors and Implementing Entities Workshop** held in De Bilt, Netherlands (9 – 10 October 2024), with a follow-up workshop planned for Morocco in 2025. The outcomes of the peers and Implementing Entities Workshop are elaborated [here](#).



Collaboration with WMO’s technical departments and its governing bodies has ensured that SOFF investments align with WMO standards and regulations. Specific engagements have taken place with teams including the Commission of Observation, Infrastructure and Information System (INFCOM), Regional Associations, Regional WIGOS Centres (RWCs), Global Information System Centres (GISCs) and the Global Climate Observing System (GCOS) team. These engagements have helped clarify investments in SOFF countries on various topics such as WIGOS metadata, calibration, and data exchange.

To facilitate ongoing peer-to-peer learning, supported by the WMO Education and Training Office, SOFF launched a dedicated Moodle platform for peer advisors and Implementing Entities. This digital space supports structured engagement on readiness outputs, technical challenges, and investment preparation, reinforcing SOFF’s goal of embedding systemic and sustainable change in national observing systems.

Table 1. Summary of technical webinars coordinated by the SOFF Secretariat and WMO Technical Authority together with partners

| Date | Technical webinars |
|------------------|---|
| 7 February 2024 | Knowledge sharing and lessons learned from preparing Country Hydromet Diagnostics |
| 16 February 2024 | GBON National Contribution Plan lessons learned. |
| 28 May 2024 | Engagement with SOFF peer advisors on WIS 2.0 |
| 7 November 2024 | Follow up on WIS 2.0 towards SOFF implementation |
| 12 November 2024 | Calibration approaches for instruments at GBON stations |
| 12 December 2024 | Follow up on WIS 2.0 towards SOFF implementation (2 nd session) |

6. SOFF impact report

The SOFF Steering Committee, through [Decision 6.8](#), approved funding for the production of SOFF Impact Reports as part of the SOFF Work Programme 2022-2025. Impact is defined as the impact of improved observations on forecast skill. The reports are being conducted in two phases. The first phase will prepare a summary of the findings of existing scientific studies, i.e. answers the question “what do we know and what do we not know”. It also proposes scenarios for SOFF-tailored further research and experiments in phase two in order to further develop understanding of the impact specifically for SOFF investments. WMO has engaged the European Centre for Medium-Range Weather Forecasts (ECMWF), one of the World Meteorological Centres and a member of the SOFF Advisory Board, to undertake the studies.

The phase one report was prepared and submitted to the 9th Steering committee. The report finds substantial evidence that investments in additional surface-based observations yield significant benefits for weather prediction and climate services, which are essential for disaster preparedness and climate adaptation, especially in vulnerable regions. However, it also notes that further scientific studies are needed to better quantify these impacts and guide SOFF’s investment priorities. The phase two report, completing the SOFF tailored impact experiments, will be presented at the 11th SOFF Steering Committee meeting.

7. SOFF at COP29

The Paris Agreement calls on strengthening systematic observation. The legally binding international treaty on climate change was adopted by 196 Parties at the United Nations Framework Convention on Climate Change (UNFCCC) and the 21st session of the Conference of the Parties of the UNFCCC (COP21) in 2015. Action under the agreement should be carried out in accordance with the best available science. To enhance understanding, action and support, the Agreement identifies the need to enhance and strengthen systematic observation.

SOFF was featured in SBSTA61 conclusions ([FCCC/SBSTA/2024/10](#)). The conclusions of the 61st session of the Subsidiary Body for Scientific and Technological Advice (SBSTA) highlight the essential role of Earth observation systems in supporting climate adaptation, mitigation, and loss and damage efforts. SBSTA noted with appreciation the support being provided for addressing gaps in systematic observation in developing countries and SOFF’s continued efforts, inviting SOFF to consider extending its support to more countries. It encouraged Parties and relevant organizations to further strengthen their provision of support to the systematic observation community.

At COP29 Earth Information Day, SOFF called for a new systematic observation partnership with developing countries. A new partnership for systematic observation is critical, a partnership that SOFF is contributing to. Firstly, investments in systematic observation are needed where it matters the most, in developing countries and regions with the largest data gaps. Secondly, basic weather and climate data need to be valued as a global public good. Thirdly, this requires a new partnership with developing

countries, one not built on “aid” but on equal footing, a partnership that recognizes and values the important contributions of developing countries to the global observing system, which will significantly enhance the accuracy of global forecasting, delivering substantial economic benefits to developed countries as well.

The SOFF high-level [event](#) on “Sustained Climate Finance for Systematic Observation” at COP29 welcomed senior leadership from SOFF partners as well as from SOFF countries and funders. The event created a space to highlight the importance of basic weather and climate data, announce donor pledges and present the [SOFF Action Report 2024](#).

During COP29, SOFF and the African Development Bank (AfDB) signed a Letter of Intent to address Africa's urgent climate observation needs. The partnership leverages SOFF's grant-based finance and technical assistance together with AfDB's Climate Action Window (CAW), aiming to provide timely financing for accurate early warnings in the continent's most vulnerable countries.

Additionally, SOFF formalized its partnership with the Weather Ready Pacific Programme through an agreement signed at COP29, underscoring the complementarity of efforts to strengthen climate resilience in the Pacific region.

These partnerships expand upon the collaboration framework signed at COP28, where SOFF and the secretariats of key climate funds—including the Adaptation Fund, Climate Investment Funds, CREWS, Global Environment Facility, and Green Climate Fund—committed to enhancing systematic climate observation and the use of weather and climate data.

8. SOFF results overview

Indicator based performance assessment

The table below presents an overview of results achieved against the SOFF Results Framework ([See SOFF TOR](#)), highlighting progress toward planned targets.

As of 2024, SOFF has supported 60 countries in the Readiness phase, with 23 countries completing the phase and significant progress on outputs such as 40 National Gap Analysis reports, 24 National Contribution Plans, and 29 Country Hydromet Diagnostics developed and verified. In the Investment phase, 13 countries have been approved for funding against a target of 50, with implementation ongoing. Capacity-building efforts continue, with training, institutional activities, and consultations underway, while infrastructure development is progressing, with many countries entering the procurement phase for surface and upper-air station installations.

| | Achieved Indicator Targets | Reasons for Variance with Planned Target (if any) | Source of Verification |
|---|---|--|---|
| <p>Outcome 1 SOFF Readiness phase implementation</p> <p>Indicator:</p> <ul style="list-style-type: none"> Number of beneficiary countries approved for SOFF Readiness phase Progress toward 3 Readiness phase outputs <p>Baseline: 0</p> <p>Planned Target⁵:</p> <ul style="list-style-type: none"> Original target 55 countries by June 2025 | <ol style="list-style-type: none"> 60 countries supported with SOFF Readiness phase funding Significant progress toward Readiness phase outputs including 23 countries have completed Readiness phase with additional countries nearing completion. | <p>N/A</p> | <p>All Readiness Phase investment funding requests and outputs available on SOFF website: SOFF Document Library - Systematic Observations Financing Facility (un-soff.org)</p> |

| | | | |
|--|---|-----|--|
| <ul style="list-style-type: none"> Updated target 75 countries by June 2025 | | | |
| <p>Output 1.1 GBON National Gap Analysis reports established and verified</p> <p>Indicator 1.1.1 Number of GBON National Gap Analysis reports produced and verified</p> <p>Baseline: 0</p> <p>Planned Target:</p> <ul style="list-style-type: none"> 75 by 2025 | <p>Targets achieved under Indicator 1.1.1</p> <ul style="list-style-type: none"> 40 | N/A | <p>All National Gap Analysis verified by WMO Technical Authority are available on: SOFF Document Library - Systematic Observations Financing Facility (un-soff.org)</p> |
| <p>Output 1.2 GBON National Contribution Plans developed and verified</p> | <p>Targets achieved under Indicator 1.2.1</p> <ul style="list-style-type: none"> 24 | N/A | <p>All National Contribution Plan verified by WMO Technical Authority are available on: SOFF</p> |

| | | | |
|---|---|-----|---|
| <p>Indicator 1.2.1 Number of GBON National Contribution Plans developed</p> <p>Baseline: 0</p> <p>Planned Target:</p> <ul style="list-style-type: none"> • 75 by 2025 | | | <p>Document Library - Systematic Observations Financing Facility (un-soff.org)</p> |
| <p>Output 1.3⁶ Country Hydromet Diagnostics developed and verified</p> <p>Indicator 1.3.1 Number of CHDs developed</p> <p>Baseline: 0</p> <p>Planned Target:</p> | <p>Targets achieved under Indicator 1.3.1</p> <ul style="list-style-type: none"> • 29 | N/A | <p>All Country Hydromet Diagnostics verified by WMO Technical Authority are available on SOFF Document Library - Systematic Observations Financing Facility (un-soff.org)</p> |
| <p>Outcome 2 SOFF Investment Phase Implementation and sustained compliance with GBON</p> | <p>Targets achieved</p> <ul style="list-style-type: none"> • 13 countries approved for SOFF Investment phase funding • Implementation on going | N/A | <p>All Investment Phase documents available on SOFF website: SOFF Document Library - Systematic Observations</p> |

| | | | |
|--|---|-----|---|
| <p>Indicator:</p> <ul style="list-style-type: none"> Number of beneficiary countries approved for SOFF Investment phase <p>Baseline: 0</p> <p>Planned Target⁷:</p> <ul style="list-style-type: none"> Updated target 50 countries by June 2025 | | | Financing Facility (unsoff.org) |
| <p>Output 2.1: GBON institutional and human capacity developed⁸</p> <p>Indicator 2.1</p> <ul style="list-style-type: none"> # NMHS staff trained # Institutional capacity building activities # National consultations | <ul style="list-style-type: none"> Implementation on going | N/A | Decision-6.6-Updated-SOFF-work-programme-July-2022-June-2025-1.pdf (unsoff.org) |

| | | | |
|--|--|--|--|
| <p>Baseline: 0</p> <p>Planned Target:</p> <ul style="list-style-type: none"> • 120 staff trained • 20 institutional capacity building activities • 60 national consultations | | | |
| <p>Output 2.2 GBON infrastructure in place</p> <p>Indicator 1.3.1</p> <ul style="list-style-type: none"> • # of surface stations rehabilitated and/or installed with SOFF support • # of upper air stations rehabilitated and/or installed with SOFF support • Baseline: Defined in National Contribution Plan <p>Planned Target:</p> | <ul style="list-style-type: none"> • Most of the countries are currently in the procurement phase, reflecting progress in setting up their GBON networks and infrastructure development starting from Q2, 2025. | | |

| | | | |
|---|--|--|--|
| <ul style="list-style-type: none">• 40 surface stations• 1⁹ upper air station | | | |
|---|--|--|--|

Annex 1⁵: Country list: Programmed, Readiness, Investment

| Batch | | Country | Peer Advisor | IE ⁶ | Status |
|---------|----|---|-------------------------|-----------------|---|
| Batch 1 | 1 | Belize | United Kingdom | IADB | Investment phase |
| | 2 | Bhutan | Finland | UNEP | Investment phase |
| | 3 | Burkina Faso | Spain - Nigeria | AfDB | Readiness phase ongoing |
| | 4 | Cabo Verde | Netherlands | UNEP | Investment phase |
| | 5 | Chad | Austria | WFP | Investment phase |
| | 6 | Democratic Republic of the Congo | Switzerland | WFP | Readiness phase ongoing |
| | 7 | Ecuador | Switzerland – Argentina | IADB | Readiness phase ongoing |
| | 8 | Ethiopia | Norway -Finland | UNDP | Investment phase |
| | 9 | Fiji | Australia | World Bank | Readiness phase completed |
| | 10 | Grenada | Spain | - | Readiness phase ongoing |
| | 11 | Guyana | Austria | IADB | Readiness phase ongoing |
| | 12 | Kiribati | Australia | UNEP | Investment phase |
| | 13 | Liberia | Nigeria | AfDB | Readiness phase completed |
| | 14 | Madagascar | Germany | AfDB | Investment funding request conditionally approved |

⁵ Status as reported in the [INF 9.1 SOFF Portfolio and Implementation Progress report](#)

⁶ Implementing Entities from countries that have either requested changes or have already made changes are highlighted in red.

| Batch | | Country | Peer Advisor | IE ⁶ | Status |
|----------------|----|---|---------------------|-----------------|---|
| | 15 | Malawi | Norway – Iceland | UNDP | Investment funding request conditionally approved |
| | 16 | Maldives | Finland – Indonesia | UNEP | Investment phase |
| | 17 | Mozambique | South Africa | WFP | Investment phase |
| | 18 | Nepal | Finland | UNEP | Readiness phase ongoing |
| | 19 | Rwanda | Finland | UNDP | Investment phase |
| | 20 | Samoa | Australia | World Bank | Investment funding request conditionally approved |
| | 21 | Senegal | Netherlands | IsDB | Readiness phase ongoing |
| | 22 | Solomon Islands | Australia | UNDP | Investment phase |
| | 23 | South Sudan | Austria | AfDB | Investment phase |
| | 24 | United Republic of Tanzania | Denmark | UNDP | Investment phase |
| | 25 | Timor-Leste | Finland– Indonesia | UNEP | Investment funding request conditionally approved |
| | 26 | Tuvalu | New Zealand | UNEP | Readiness phase ongoing |
| Batch 2 | 27 | Cambodia | United Kingdom | World Bank | Readiness phase ongoing |
| | 28 | Guinea-Bissau | Portugal | UNEP | Readiness phase ongoing |
| | 29 | Lao People's Democratic Republic | Austria-China | World Bank | Readiness phase ongoing |
| | 30 | Nauru | Australia | UNEP | Investment funding request conditionally approved |
| | 31 | Papua New Guinea | Australia | UNDP | Readiness phase completed |

| Batch | | Country | Peer Advisor | IE ⁶ | Status |
|----------------|--------------|---------------------------------------|----------------------|-------------------------|---------------------------|
| | 32 | Sao Tome and Principe | Netherlands | UNDP | Readiness phase ongoing |
| | 33 | Tonga | New Zealand | World Bank | Readiness phase ongoing |
| | 34 | Uganda | Netherlands | IsDB | Investment phase |
| | 35 | Vanuatu | New Zealand | World Bank | Readiness phase ongoing |
| | 36 | Zambia | United Kingdom | WFP | Readiness phase completed |
| Batch 3 | 37 | Antigua and Barbuda | United Kingdom | UNDP | Readiness phase ongoing |
| | 38 | Bahamas | Finland | IADB | Readiness phase ongoing |
| | 39 | Bangladesh | Norway | IsDB | Readiness phase completed |
| | 40 | Barbados | Finland | IADB | Readiness phase ongoing |
| | 41 | Comoros | Morocco | AfDB | Readiness phase ongoing |
| | 42 | Cuba | Spain | UNDP | Readiness phase ongoing |
| | 43 | Djibouti | Austria | UNDP | Readiness phase ongoing |
| | 44 | Dominica | Austria | WFP | Readiness phase ongoing |
| | 45 | Dominican Republic | Spain | WFP | Readiness phase ongoing |
| | 46 | Federated States of Micronesia | United Kingdom | UNEP | Readiness phase ongoing |
| | 47 | Jamaica | Finland | IADB | Readiness phase ongoing |
| | 48 | Marshall Islands | United Kingdom | UNEP | Readiness phase ongoing |
| | 49 | Mauritius | South Africa – India | AfDB | Readiness phase ongoing |
| | 50 | Niger | Nigeria | AfDB | Readiness phase ongoing |
| 51 | Palau | United Kingdom | UNEP | Readiness phase ongoing | |

| Batch | | Country | Peer Advisor | IE ⁶ | Status |
|-------|----|-------------------------------------|-------------------|-----------------|----------------------------|
| | 52 | Saint Kitts and Nevis | Finland | IADB | Readiness phase ongoing |
| | 53 | Saint Lucia | Austria | WFP | Readiness phase ongoing |
| | 54 | Saint Vincent and Grenadines | Austria | WFP | Readiness phase ongoing |
| | 55 | Seychelles | South Africa | AfDB | Readiness phase ongoing |
| | 56 | Somalia | Nigeria | UNDP | Readiness phase ongoing |
| | 57 | Suriname | Netherlands | UNDP | Readiness phase ongoing |
| | 58 | Tajikistan | Finland | World Bank | Readiness phase ongoing |
| | 59 | Trinidad and Tobago | Finland | IADB | Readiness phase ongoing |
| | 60 | Haiti | Switzerland | IADB | Readiness phase ongoing |
| | 61 | Sierra Leone | Austria - Germany | WFP | Readiness phase ongoing |
| | 62 | Sudan | - | - | Readiness phase programmed |
| | 63 | Guatemala | - | - | Readiness phase programmed |
| | 64 | Cook Islands | New Zealand | UNEP | Readiness phase programmed |
| | 65 | Guinea | Germany | UNDP | Readiness phase programmed |
| | 66 | Niue | New Zealand | UNEP | Readiness phase programmed |

Annex 2⁷: Investment phase: portfolio summary

| Country | Date of approval | IE | Peer advisor | Partner Peer advisor | Amount approved (in USD) | Amount transferred (in USD) | Status |
|------------------------|------------------|------|----------------|----------------------|--------------------------|-----------------------------|----------------------|
| Belize | Nov 2023 | IADB | United Kingdom | | 864,543 | | Not yet started |
| Bhutan | Mar 2024 | UNEP | Finland | | 4,624,024 | 3,514,453 | Under implementation |
| Cabo Verde | Mar 2024 | UNEP | Netherlands | | 3,879,118 | 2,883,272 | Under implementation |
| Chad | Jun 2024 | WFP | Austria | | 6,980,083 | | Not yet started |
| Ethiopia | Mar 2024 | UNDP | Norway | Finland | 9,956,803 | 6,701,576 | Under implementation |
| Kiribati | Nov 2023 | UNEP | Australia | | 11,155,102 | 9,715,184 | Under implementation |
| Maldives | Nov 2023 | UNEP | Finland | Indonesia | 4,907,326 | 4,149,791 | Under implementation |
| Mozambique | Nov 2023 | WFP | South Africa | | 7,892,560 | 5,373,477 | Under implementation |
| Rwanda | Nov 2023 | UNDP | Finland | | 3,535,377 | 2,473,185 | Under implementation |
| Solomon Islands | Mar 2024 | UNDP | Australia | | 8,488,524 | 5,732,049 | Under implementation |
| South Sudan | Nov 2023 | UNDP | Austria | | 2,480,496 | | Not yet started |

⁷ Status as reported in the [INF 9.1 SOFF Portfolio and Implementation Progress report](#)

| Country | Date of approval | IE | Peer advisor | Partner Peer advisor | Amount approved (in USD) | Amount transferred (in USD) | Status |
|------------------------------------|------------------|------|--------------|----------------------|--------------------------|-----------------------------|----------------------|
| United Republic of Tanzania | Mar 2024 | UNDP | Denmark | | 9,067,504 | 5,272,437 | Under implementation |
| Uganda | Jun 2024 | IsDB | Netherlands | | 6,316,536 | | Not yet started |
| | | | | Total | 80,147,997 | 45,815,424 (57%) | |