
SOFF Investment Funding Request

Jamaica

Systematic Observations
Financing Facility

**Weather
and climate
data for
resilience**





General Information

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|-------------------------|--|---------------------|---------------------------------|--------------------|--------------------------------|------------------|
| Fund | MPTF_00281: The Systematic Observations Financing Facility | | | | | |
| FMP Record | SOFF Jamaica Investment Phase | | | | | |
| MPTFO Project Id | | | | | | |
| Start Date | | | | | | |
| End Date | | | | | | |
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| Signatories | Signature Process | Role | Name of Organization | Name | User Email | |
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| Description | <p>The Systematic Observations Financing Facility (SOFF) is a funding mechanism designed to help countries address gaps in basic weather and climate observation data. To save lives, protect livelihoods, and safeguard property globally, it is essential to enhance the availability of weather and climate observations, especially in the most data-sparse areas. These observations are crucial for accurate weather forecasts, effective early warning systems, and comprehensive climate information services. The lack of such data limits countries' ability to adapt to climate change and build resilience.</p> <p>Jamaica is the largest and most populated island in the English-speaking Caribbean. Jamaica is vulnerable to natural disasters such as hurricanes and flooding that occur annually and is severely affected by the climate change, especially along its coasts. The expected impacts of climate change include a warming and drying trend, causing more frequent droughts and bush fires, as well as intense rainfall and sea level rise. These effects will have a huge impact on the national food and water security, as well as the country's society and economy. Jamaica has significant agricultural, tourism and maritime sectors, which are all susceptible to severe weather and climate events. As a country, Jamaica has suffered both the loss of human life and financial income resulting from weather and climate events. In October 2025, the country was impacted by Hurricane Melissa, a Category Five (5) system that caused catastrophic damage (estimated at US\$12.2 billion or 56.7% of Jamaica's 2024 GDP) in the western section of the island, resulting in significant loss of infrastructure across all sectors including housing, tourism, education health, agriculture, energy, water, energy, transport and telecommunications, together with significant loss of life and economic production (JIS, March 6, 2026).</p> <p>The Meteorological Service of Jamaica (MSJ) is a branch of the Ministry Economic Growth and Job Creation of the Government of Jamaica with the responsibility for monitoring and tracking weather and climate in Jamaica. The MSJ is successfully providing weather warnings, as well as versatile weather services and climate services to the public and local stakeholders and has an important role in disaster risk reduction and emergency operations in Jamaica. Besides its national collaborations, the MSJ is actively partaking in the regional and international meteorological community. The MSJ has been continuously developing its capabilities to produce and disseminate services effectively and to serve specific stakeholder needs, as well as increasing public awareness and knowledge of weather and climate topics.</p> <p>Based on the analysis of the Country Hydromet Diagnostics, the following critical gaps in the MSJ current capabilities have been identified:</p> <ul style="list-style-type: none"> • There is currently no legislation for meteorological services to stipulate MSJ's mandate and responsibilities. The development of national legislation to grant the MSJ the status of an Authority is essential. • The MSJ has identified a staff shortage and is encouraged to continue pinpointing key positions—such as those in climate services, | | | | | |

quality management, and communications.

- Operation and maintenance plans, including life-cycle plans, annual maintenance and calibration SOPs need to be developed or updated to support the sustainable operation of observing systems.
- Currently no Quality Management System is consistently followed by the MSJ.
- The MSJ is encouraged to maintain close and regular engagement with stakeholders, fostering coordinated discussions on needs and co-design of new services.
- The MSJ is recommended to strengthen their human capability in utilizing automatic product dissemination, model editing and post-processing, introducing AI based methods and initiating forecast verification, as well as improving capabilities in impact-based forecasting and QMS.
- Significant gaps exist in the observation system, including the need to upgrade manual GBON observation stations to automated ones and the urgent repair of the malfunctioning weather radar. Furthermore, there is a clear requirement for a lightning observation network and a marine observation network, both of which would benefit from regional support and solutions. Additionally, the absence of an integrated data management system presents a major challenge for the storage and processing of observation data.

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| Universal Markers | Gender Equality Marker | Risk | | | |
| | GEM1 - The Key Activity contributes to GEWE in a limited way. | Low Risk | | | |
| Optional Markers | WB Income Category | Upper Middle Income | | | |
| | UN LDC | No | | | |
| | Small Island Developing States (SIDS) | Yes | | | |
| Fund Specific Markers | SOFF Phases | SOFF Phases ♦ Investment Phase | | | |
| | EW4All | Early Warnings for All initial focus countries ♦ Yes | | | |
| | Fragile and conflict- affected situation | Fragile and conflict-affected situation ♦ No | | | |
| | Peer advisor | Peer advisor ♦ Finnish Meteorological Institute | | | |
| Geographical Scope | Geographical Scope | Name of the Region | Region(s) | Country | |
| | ♦ Country | Caribbean | ♦ Americas | ♦ Jamaica | |
| Participating Organizations and their Implementing Partners | UN Participating Organizations | Government/ Multilateral/ NGO/ Other | New Entities | Implementing Partners | |
| | ♦ WMO - WMO (World Meteorological Organization) ♦ | Inter-American Development Bank | | | |
| Programme and Project Cost | Participating Organization | Amount (in USD) | Comments | | |
| | Budget Requested | | | | |
| | ♦ IE | \$953,905 | Includes the Please write % of IE fee requested IE fee | | |
| | WMO | \$258,673.57 | Includes the 7% WMO fee | | |
| | Total Budget Requested | \$1,212,578.57 | | | |
| | Tranches | | | | |
| | Tranche 1 | | Tranche 2 | | Tranche 3 |
| | IE (60 % requested) | \$ 572,343 | IE (40 % requested) | \$ 381,562 | IE (0%) \$ 0.00 |
| | WMO (33.33%) | \$ 86,215.9 | WMO (33.33%) | \$ 86,215.9 | WMO (33.34%) \$ 86,241.77 |
| | Total: | \$ 658,558.9 | Total: | \$ 467,777.9 | Total: \$ 86,241.77 |
| Other Sources (Parallel Funding) | | | | | |
| Total | \$ amount | \$1,212,578.57 | | | |
| Thematic Keywords | | | | | |
| Programme Duration | Anticipated Start Date | 4 January 2027 | | | |
| | Duration (In months) | 36 | | | |
| | Anticipated End Date | 31 January 2030 | | | |

Narratives

Close the most significant data gaps

The GBON Global Gap Analysis conducted by WMO in June 2023, considers Jamaica as a SIDS and is responsible for providing data from two (2) surface stations only. However the Meteorological Service of Jamaica (MSJ) operates a network including manual synoptic stations and automatic stations with both WMO grade synoptic stations and stations of subgrade category as well as a network of manual rain gauges. All-in-all there are 118 AWS stations, from which approximately 30 have capability to transmit information in real-time from which approximately half in a reliable fashion. Most of the stations report all GBON parameters excluding snow-depth, which is not relevant for the Jamaican climate. Many of the stations require manual collection and actual pick-up of data from the station itself. In addition to MSJ-owned stations MSJ operates some weather stations owned by the Civil Aviation Authority for the aviation purposes.

The two manual surface weather stations registered in the GBON WDQMS database, are located in Montego Bay international airport and Kingston international airport with less than 150km space between them. Both stations are reporting every 3 hours instead of the hourly resolution required for GBON. Both stations operate a very old set of sensors (including mercury-based thermometers) that need to be replaced.

According to the NGA, to reach the required reporting interval of one hour and to replace the obsolete technology it is recommended to automate all GBON sensors (SLP, T, H, W, P) for the selected two GBON stations. To ensure data availability, good calibration practices and sustainability of the stations spare part stock needs to be included. Additionally the MSJ lacks technical staff to support the maintenance and operation of the network and it is recommended to recruit one additional technician for the team.

The upper air sounding system is operating well with the support of NWS. To ensure twice daily soundings operations one additional operator needs to be recruited to the staff. Investing in a power line conditioner has been recommended by NWS to avoid power spikes that can damage the hydrogen generator thus interrupting operations.

Caribbean WIS2.0 platform is being implemented to support the dissemination of messages manually and needs to be developed to support the automatic transmission to ensure hourly target. The regional development of the platform is coordinated by the Caribbean Meteorological Organization.

Table1. GBON National Contribution Target

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| Type of station | Baseline (Results of the GBON National Gap Analysis) | | | | GBON National Contribution Target | |
|-----------------|--|-----------------------------|-----|------------|-----------------------------------|-----|
| | Target (# of stations) ¹ | GBON-compliant stations (#) | Gap | | To improve | New |
| | | | New | To improve | | |
| Surface | 2 | 0 | - | 2 | 2 | - |
| Upper-air | 1 | 1 | - | - | - | - |
| Marine | *when applicable | | | | | |

Target easy fixes

The main gap in fulfilling the GBON requirements in Jamaica is the lack of temporal resolution of the shared synoptic surface observation data. Real-time data collection, automatic data quality control and data management systems need to be strengthened to support the increased data reporting and format demand by GBON requirements. This may include upgrading the existing manual stations to automatic systems in order to reach the GBON data availability criteria.

Sustainable network maintenance can be strengthened with capacity building focusing on calibration and maintenance processes of the required network. To achieve this target and ensure sustainability, it is recommended that the MSJ develop a lifecycle plan for AWS operations and related IT hardware and link this to the annual budget planning. Additionally for calibration, it is recommended that the MSJ continues to engage with regional calibration center (i.e. the Caribbean Institute for Meteorology and Hydrology - CIMH, hosts the WMO regional calibration center), but considers forming new partnerships with calibration centers nearby or investing in a national calibration facility.

Create leverage

SHOCS projects I and II focused on improving policies, communication and human capacity on national and regional level to strengthen resilience to impact of hydro-meteorological hazards was funded by the Finnish Government. WMO CREWS project Building Resilience to High-Impact Hydro-meteorological Events through Strengthening Multi-Hazard Early Warning Systems in Small Island Developing States 2015-2019 targeted also Jamaica and helped to create the national framework and strategic plan for the service.

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| | <p>The SOFF project activities will be beneficial to hydrometeorological dependent projects that are being implemented in Jamaica to increase resilience to the impacts of climate change. The recently approved GCF project “ADAPT Jamaica: Enhancing climate change resilience of vulnerable smallholders in Central Jamaica” will benefit from improvements in MSJ’s network and capacity strengthening efforts including the dissemination of climate service information on its web platform.</p> <p>The regional aspect of maintaining and harmonizing practices for the Caribbean network is present as FMI is acting as the SOFF Peer Advisor in five countries in the region. This is further emphasized as the Implementing Entity IDB is working with the same countries as well as countries with different Peer Advisors. To strengthen the regional capacity collaboration and knowledge sharing with other important regional organizations such as Caribbean Meteorological Organization (CMO), Caribbean Institute for Meteorology and Hydrology (CIMH) and Caribbean Disaster Emergency Management Agency (CDEMA) should be included when feasible. An especially crucial role is played by the CIMH in the region in terms of the quality of observation data as it operates the regional instrument calibration facilities in the Caribbean region. Synergies and means for the instrument calibration procedures in collaboration with the CIMH will be sought during the implementation of the SOFF.</p> <p>The CREWS funded Building Resilience Through Climate Adaptation Technologies Project (BReTCAT) to improve impact-based forecasts in Jamaica is still on-going with FMI participating to this, but all activities have been delivered and the project will be soon closed after formal acceptances.</p> |
| <p>Maximize delivery capacity</p> | <p>The Implementing Entity is the Inter-American Development Bank (IDB), an international financial institution headquartered in Washington, D.C. and serves as the largest source of development financing for Latin America and the Caribbean. The IDB supports economic development, social development and regional integration in the Latin American and Caribbean (LAC) region through the provision of loans, grants and knowledge creation. The IDB provides these resources to its twenty-six (26) borrowing member countries in LAC, supporting development in a sustainable, climate-friendly way.</p> <p>The IDB will also leverage lessons learned and delivery capacity from the ongoing SOFF projects in Belize and Guyana, where the Bank is serving as Implementing Entity. The operational experience gained in both countries, managing procurement and logistical challenges in a Caribbean context will directly strengthen IDB’s ability to ensure efficient, high-quality execution Jamaica.</p> <p>Additionally the Bank is developing two projects on agroforestry and sustainable agriculture (another Climate Investment Funds’ Pilot Program for Climate Resilience [PPCR] project) that will require access to hydrometeorological data and will require engagement with the JMS.</p> <p>FMI has previous experience of working with Meteorological Service of Jamaica in several projects. SHOCS I and II Finnish-funded capacity building projects to improve Caribbean countries resilience to impacts of hydro-meteorological hazards including the impact of climate change with multi-hazard early warning systems and disaster risk reduction and the human capacity. The SHOCS II project included a dedicated activity on the rehabilitation and development of the existing AWS network over the Caribbean region and the peer advisor is therefore well aware of the current situation, needs and challenges in the region in development of the observation systems.</p> <p>The peer advisor implemented a consultant assignment of the World Bank funded PPCR project in Jamaica 2016-2019, which included among others preparation of the business plan for the MSJ, needs and gap analysis of the observation networks and technical specification of the acquisition of a new weather radar in Jamaica.</p> <p>A project Improving Climate Data and Information Management Project (2019) by developing surface observation network design and latest in CREWS funded Building Resilience Through Climate Adaptation Technologies Project (2021) to improve impact-based forecasts in Jamaica by installing FMI forecast and service production system SmartMet mobile app and capacity building. The project is currently on-going but all FMI activities have been delivered and the project will be closed as soon as formal acceptance has been granted. Peer advisor has no further activities planned in Jamaica.</p> |
| <p>Sub-regional gains</p> | <p>Jamaica is a member of WMO and a part of the Caribbean Meteorological Organization and is included in the wider Caribbean and Atlantic warning system linked to the US National Hurricane Center and NOAA.</p> <p>The regional collaboration and capacity will be strengthened by facilitating a regional calibration and maintenance workshop between Caribbean SOFF countries and the Caribbean Institute for Meteorology and Hydrology (CIMH) to ensure GBON requires uptime and quality and benchmarking good data management and communication processes between the institutes. Additionally regional collaboration gains and cost effectiveness could be materialized through training activities related to the installation, operation, and maintenance of GBON stations and network and the implementation of WIS2.0 protocol and WIS2Box, in coordination with Caribbean Meteorological Organization (CMO), CIMH and the other countries in the region.</p> |
| <p>SOFF Beneficiary Country Capacity Assessment</p> | <p>The MSJ will be the executing agency for the project on behalf of the Government of Jamaica. The MSJ has a long history of experience in the execution of projects including the following:</p> <ul style="list-style-type: none"> • Climate Services and Related Applications Programme (ClimSA) funded by the European Union (on-going) • Building Resilience Through Climate Adaptation Technologies (BReTCAT) funded by the Inter-American Development Bank and World Meteorological Organization (WMO) and Caribbean Development Bank. (Ended in 2023) • Climate Change Adaptation and Disaster Risk Reduction Project (CCADRRP) funded by the European Union, United Nations Environment Programme (UNEP) and Government |

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| | <p>of Jamaica.</p> <ul style="list-style-type: none"> • Jamaica’s Bush Fire Warning Index – Predicting, Detecting and Mitigating Disaster funded by European Union and Caribbean Development Bank. • Weather Ready Nations funded by NOAA • Enhancing Climate Resilience in CariForum Countries by Caribbean Community Climate Change Centre <p>However as outlined in the CHD, there is a staff shortage within the MSJ and it has been recommended that key positions be pinpointed —such as those in climate services, quality management, and communications—that are either absent from the staff roster or require additional dedicated personnel. The limitations in staff composition may affect the ability of the MSJ to manage the SOFF program but this capacity gap can be mitigated by the establishment of a dedicated project management unit (PMU) be funded through SOFF for the three years of implementation. The proposed PMU will have at least one person as a project manager and another as a monitoring and evaluation officer. It is envisioned that these people will then be eventually hired to work permanently in the department through funding from the MSJ annual budget. This will provide the necessary capacity to manage activities in the Compliance Phase (CP) of the SOFF program, especially as M&E will be a core element of the CP. Once the unit is established, the IDB will provide capacity training on its procurement and financial procedures to support the unit in its program management role.</p> |
| <p>Investment Phase Alignment with the GBON National Contribution Plan</p> | <p>There is no divergence between the targets or activities stated in the GBON National Contribution Plan and the proposed Investment Phase targets.</p> |
| <p>Execution model and implementation arrangements</p> | <p>The program will be client-executed and a project execution unit will be established within the MJS as the designated executing entity (EE). The IDB will be the implementation entity for the client-executed project. Under this modality of client execution that is the project will be executed by the MSJ acting as the EE, the Bank as IE will provide oversight of project execution and support its administration. To ensure compliance with established fiduciary, procurement and environmental standards of project execution.</p> <p>The EE will be responsible for (i) the project’s technical, administrative, and operational management; (ii) the procurement of works, goods, and services;</p> <p>(iii) the preparation of disbursement requests; (iv) the preparation and update of annual work plans and the procurement plan, among others; (v) the submission of project management reports —the Annual Operation Plan, Semi-Annual Reports, and final evaluation reports; (vi) the monitoring, supervision, and inspection of works and service contracts. The EE will use the IDB’s procurement and financial policies during execution.</p> <p>A summary of the procurement policies of the IDB in relation to the procurement of Works and Goods are as follows:</p> <ol style="list-style-type: none"> 1. Scope. The policies for the Procurement of Works and Goods Financed by the IDB apply to all operations, financed wholly or partly by the Bank or by funds administered by the Bank and executed by a Borrower or Beneficiary. These policies regulate procurement processes of works, goods, and related services (different from consulting services). References to “goods” and “works” in these Policies include related services such as transportation, insurance, installation, commissioning, training, and initial maintenance. The term “goods” includes commodities, raw materials, machinery, equipment, and industrial plants. Provisions of these Policies also apply to services that are bid and contracted on the basis of performance of measurable physical output, such as drilling, mapping, and similar operations. 2. Basic Responsibilities. The responsibility for project implementation, and therefore for the award and administration of the contract under the project, rests with the Borrower. In some cases, the Borrower acts only as an intermediary, and the project is carried out by another agency or entity. The Bank oversees the procurement process to ensure that its rules and procedures are followed. 3. Basic Guidelines: The basic guidelines of the procurement policies relate (i) the general principles of eligibility, advance contracting and retroactive financing, joint ventures, Bank Review, mis-procurement, Fraud and Corruption, and the requirement of a procurement plan; (ii) the process of international competitive bidding, including related and relevant aspects; (iii) other selection methods, such as limited international bidding, national competitive bidding, shopping, direct contracting, force account, and community participation in procurement, among other methods, and specific recommendations for good practices. <p>A summary of the procurement policies of the IDB in relation to the selection and contracting of Consultants financed are as follows:</p> <ol style="list-style-type: none"> 1. Scope. The Policies for the Selection and Contracting of Consultants Financed by the IDB apply to all operations, financed wholly or partly by the Bank or by funds administered by the Bank and executed by a borrower or beneficiary. For the purpose of these policies, the term consultants includes a wide variety of private and public entities, including consulting firms, engineering firms, construction managers, management firms, procurement |

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| | <p>agents, inspection agents, specialized agencies and other multinational organizations, investment and commercial banks, universities, research institutions, government agencies, nongovernmental organizations (NGOs), and individuals consultants. These policies regulate the processes of selection and contracting of consulting services of an intellectual and advisory nature. These Policies do not apply to other types of services in which the physical aspects of the activity predominate (for example, construction of works, manufacture of goods, operation and maintenance of facilities or plant, surveys, exploratory drilling, aerial photography, satellite imagery, and services contracted on the basis of performance of measurable physical output). For these last types of services, the Policies for the procurement of Goods and Works are applied.</p> <p>2. Basic Responsibilities. The Borrower is responsible for preparing and implementing the project, and therefore for selecting the consultant, and for the award and subsequent administration of the contract. The Bank oversees the procurement process to ensure that its rules and procedures are followed.</p> <p>3. Basic Guidelines: The basic guidelines of the procurement policies for the selection of consultants describes (i) issues related to the general principles, conflict of interest, unfair competitive advantage, eligibility, advance contracting and retroactive financing, associations between consultants, review, assistance and monitoring on the part of the Bank, mis-procurement, prohibited practices, and the requirement of a procurement plan; (ii) the selection process based on quality and cost, as well as aspects to be aware of during such process; (iii) other methods of selection, such as quality-based selection, least-cost selection, selection based on the consultants' qualifications, and single source selection, among other methods and specific recommendations for good practices; (iv) types of contracts and important provisions related to them; (v) aspects related to the selection of individual consultants.</p> <p>In terms of fiduciary requirements, the executing entity will be required to establish a separate bank account for the flow of funds from the IDB, the Implementing Entity. The assessment of the fiduciary requirements will follow the Bank's Institutional Capacity Assessment System (ICAS), which is a tool to evaluate the capacity of executing agencies during project preparation. It assesses an agency's ability to manage projects effectively, including technical, fiduciary, and operational areas, to identify risks and needed strengthening. It identifies strengths, weaknesses, and risks during the preparation of sovereign guaranteed operations to ensure success. The scope of the institutional assessment is to cover areas of financial management as well as strategic management, operational management, and relationship management.</p> <p>The execution arrangements will be established through a technical cooperation agreement between the IDB and the Government of Jamaica.</p> |
| <p>Private sector involvement</p> | <p>The MSJ is the sole governmental stakeholder to operate and acquire meteorological observations. No other governmental stakeholder is performing such activity or is planning to start doing so in the known future. As for private stakeholders, there are no private entities that are currently providing data to the MSJ. However, in the operations and maintenance of the weather stations at the national airports, the MSJ actively collaborates with the private company that manages the airport operation in Norman Manley International Airport and the Montego Bay International Airport. Both airports are operated by the Grupo Aeroportuario del Pacifico. The collaboration includes discussion on observation site maintenance, access to the sites and works made in the near vicinity of the sites that may affect observation quality. The MSJ also has service contracts with private sector suppliers for new equipment.</p> |
| <p>Civil society participation</p> | <p>The engagement of civil society is an important factor and including CSO engagement during and after the SOFF implementation phase will bring mutual benefit and grounds for sustainable operation. The following actions are recommended to ensure that CSO's are regularly consulted during the entire length of the program cycle:</p> <ul style="list-style-type: none"> • Conduct stakeholder engagement workshops on the implementation of the SOFF project deliverables (observational data exchange to support weather/climate and water services and products), bringing together key stakeholders and CSOs, to involve and collaborate with the MSJ and the SOFF project team from the early onset, as well as ensure the stakeholders are consulted on operations and maintenance. • Organize high level dialogues on benefits, co-production, and ownership of the new national GBON infrastructure. <p>During SOFF investment, there is a target of 50% of women participating in capacity building activities and in consultations with civil society organizations.</p> |
| <p>Fiduciary systems</p> | <p>The financial management and oversight of the project including reporting requirements, will follow IDB policies and procedures. The financial management of the project will be governed by the IDB's Financial Management Guidelines for all operations financed by the IDB, which aims to ensure "that the proceeds of any loan made, guaranteed, or participated in by the Bank are used only for the purposes for which the loan was granted, with due attention to considerations of economy and efficiency". The same principles apply to grants. The financial management and oversight of the project will be aligned with the provisions set out in the Memorandum of Understanding for the Systematic Observations Financing Facility (SOFF) using Pass-Through Fund Management. Project implementation will comply with the requirements established under Section II – Financial Matters, Section III – Activities of the Participating UN Organizations, and Section VI – Audit of the MOU, ensuring proper use of</p> |

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| | <p>funds, transparent financial flows, and adherence to international fiduciary standards.</p> <p>There are ten financial management guidelines that the executing entity must agree to in the execution of projects and generally relate to (i) financial planning and cash flow needs; (ii) records and reports on the use of project resources; (iii) effective internal controls; (iv) statement of accounts audited by independent entities and (v) comprehensive supervision by the Bank. The ten guidelines are:</p> <ol style="list-style-type: none"> 1. Eligibility of expenditures 2. Disbursement management 3. Rendering of accounts 4. Project financial supervision 5. Project financial reporting system 6. Internal control 7. Independent external auditors 8. External financial audit of the project 9. Prohibited practices 10. Transparency <p>The procurement of goods, works and services, and the selection of consultants will be carried out in accordance with IDB policies and guidelines related to: (i) Procurement of Goods and Works financed by the IDB; (ii) Policies for the Selection and Contracting of Consultants financed by the Inter-American Development Bank. The procurement of projects is guided by core procurement principles which are:</p> <p>Value for money</p> <p>Economy – refers to buying inputs of the appropriate quality at the right price</p> <p>Efficiency</p> <p>Equality</p> <p>Transparency</p> <p>Integrity</p> |
| <p>Social and environmental safeguards</p> | <p>The project will be governed by IDB’s Environmental and Social Policy Framework, which is a consolidated framework covering environment, involuntary resettlement, and indigenous people. All projects will be prepared in accordance with the ESPS requirements. All projects undergo environmental and social due diligence at appraisal to help the IDB decide if the project should be financed and, if so, the way in which environmental and social risks and impacts should be addressed in its planning, implementation and operation. The appraisal process also identifies opportunities for additional environmental or social benefits. IDB seeks that projects are designed, implemented, and monitored in compliance with its policies, applicable regulatory requirements and international best practices. The SP sets out principles, rules, procedures and guidelines for conducting environmental and social due diligence of the potential projects. These procedures and guidelines also describe the process for developing measures to avoid and mitigate potential adverse impacts as well as opportunities to improve the environmental and social outcomes of the projects. IDB is committed to the principles of transparency, accountability and stakeholder engagement, and promoting adoption and implementation of these principles by its clients.</p> <p>Proportionate to the nature and scale and environmental and social risks and impacts of the project, IDB requires its clients to disclose sufficient information about the risks and impacts arising from projects, engage with stakeholders in a meaningful, effective, inclusive and culturally appropriate manner and take into consideration the feedback provided through such engagement.</p> <p>The Bank will undertake a gender assessment as part of its Institutional Capacity Assessment of the executing entity to manage the project. The IAC examines six areas of project execution (i) project management; (ii) technical quality management; (iii) human resources management; (iv) procurement management; (v) financial management; and (vi) environmental and social impact management. The gender assessment will be done within the context of the environmental and social impact management module.</p> |
| <p>Dispute resolution mechanism</p> | <p>In accordance with the environmental and social standards of the IDB, there are three channels by which an entity can file a complaint related to an -IDB financed project that may cause environmental or social damage:</p> <ol style="list-style-type: none"> 1. At the local level, file a complaint through the executing entity. 2. With the IDB group, through its IDB Complaints form. |

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| | Independent Mechanism, through an accountability office independent from project teams which facilitates dispute resolution processes to resolve the concerns raised. Any issues handled through this mechanism, as well as follow-up actions, will be regularly reported to SOFF through the project's narrative reporting. |
| Additional relevant policies and procedures | Please state any other policies and procedures that the Implementing Entity applies. |

SDG Targets

| Target | Description |
|---|--|
| Main Goals | |
| Goal 13. Take urgent action to combat climate change and its impacts² | |
| TARGET_13.1 | 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries |
| TARGET_13.2 | 13.2 Integrate climate change measures into national policies, strategies and planning |
| TARGET_13.3 | 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning |
| TARGET_13.b | 13.b Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities |
| Secondary Goals | |
| Goal 5. Achieve gender equality and empower all women and girls | |
| TARGET_5.5 | 5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life |

SDG Indicators

| Indicator Code | Description |
|----------------|---|
| C130b01 | 13.b.1 Number of least developed countries and small island developing States that are receiving specialized support, and amount of support, including finance, technology and capacity-building, for mechanisms for raising capacities for effective climate c |

Contribution to SDGs

| Participating Organization | % TARGET_5.5 | % TARGET_13.1 | % TARGET_13.2 | % TARGET_13.3 | % TARGET_13.b | % Total |
|----------------------------|--------------|---------------|---------------|---------------|---------------|---------|
| WMO | 0 | 50 | 0 | 50 | 0 | 100 |
| IDB | 10 | 30 | 20 | 30 | 10 | 100 |

Project Results / Indicators / Work Plan

Please note that there are different sections for **Project Results**, **Project Indicators** and **Work Plan** in the UN MPTF Gateway. Please refer to the Gateway Manual for guidance on how to fill out these sections.

| Outcome | Output | Description | | | | | | | | | | | | | | | | | | | | |
|--|--|--|---------------------------------|---|---|--|---|--|------------|------------|---------|------------|----------------|---------------|--------------------|------------------------|----------------|----|----|----|----|--|
| 1. GBON institutional and human capacity developed | 1.1 National Consultations conducted | National consultations including with CSOs, and other relevant stakeholders conducted | | | | | | | | | | | | | | | | | | | | |
| | Activities (add rows as needed) | | | | | | | | | | | | | | | | | | | | | |
| | Title | Description | Lead Participating Organization | Participating Organization | Other Organizations | Indicator Title | Description | Means of Verification | Category | Cycle | Scope | Value Type | Baseline Value | Baseline Year | Total Target Value | Target Completion Year | Annual Targets | | | | | |
| | | | | | | | | | | | | | | | | | Y1 | Y2 | Y3 | Y4 | Y5 | |
| | Program launch for key stakeholders | Project initiation event with all relevant Ministries, CSOs, private sector and Development Partners to raise awareness of the SOFF plans and to ensure coordination and identify synergies. | IE | WMO | Please write if institutions other than the IE and peer advisor are contributing. | # of events to raise awareness of the program. 50% of participants will be women | Event to engage stakeholders and share information about the project and its goals | Annual or semi-annual progress updates | Capacity | At closure | Country | Number | 0 | 2027 | 2 | 2027 | 2 | 0 | 0 | | | |
| | | Support from PA in national consultations | PA | IE | | # of events to raise awareness of the program. 50% of participants will be women | Support to event to engage stakeholders and share information about the project and its goals | Annual or semi-annual progress updates | Capacity | At closure | Country | Number | 0 | 2027 | 2 | 2027 | 2 | 0 | 0 | | | |
| | | | | | % of female participants | | Annual or semi-annual progress updates | Capacity | At closure | Country | % | 0 | 2027 | 2 | 2027 | 50 % | | | | | | |
| Stakeholders' meetings, including CSOs, private sector | Consultations with relevant stakeholders to understand their role. | IE | WMO | Please write if institutions other than the IE and peer advisor are contributing. | # of meetings to consult with stakeholders | Number of national consultations and stakeholder engagement activities | Annual or semi-annual progress updates | Capacity | At closure | Country | Number | 0 | 2027 | 3 | 2028 | 1 | 2 | 0 | | | | |

| | | | Participating Organization | Organization | Organization | Title | | Verification | | | | Type | Value | Year | Target Value | Completion Year | Y1 | Y2 | Y3 | Y4 | Y5 | |
|--|--|---|----------------------------|--------------|---|--|---|--|------------|------------|---------|--------|-------|------|--------------|-----------------|------|------|------|----|----|--|
| | Training in data transfer and data quality control and assurance, ICT systems and data management. | Development of a training program that focuses on (i) QMS; (ii) Observation Process; (iii) Data archiving; (iv) Data transfer; (v) Data quality and assurance; (vi) Instrument and station operation and maintenance at site; (vii) Network monitoring and ICT system operations; (viii) Calibration and maintenance; (ix) Marine observations: | IE | WMO | Please write if institutions other than the IE and peer advisor are contributing. | # of data transfer and data quality control and assurance, ICT systems and data management programs. 50% of participants will be women | Capacity building training programs | Annual or semi-annual progress updates | Investment | At closure | Country | Number | 0 | 2027 | 9 | 2030 | 2 | 5 | 2 | | | |
| | | | | | | % of female participants | | Annual or semi-annual progress updates | Capacity | At closure | Country | % | 0 | 2027 | 50 % | 2030 | 50 % | 50 % | 50 % | | | |
| | Support to training program | | PA | IE | | # of data transfer and data quality control and assurance, ICT systems and data management programs. 50% of participants will be women | Technical support in data transfer, quality control and assurance, data processing and archiving. | Annual or semi-annual progress updates | Investment | At closure | Country | Number | 0 | 2027 | 9 | 2030 | 2 | 5 | 2 | | | |
| | Institutional capacity building for GBON compliance | Hiring of technical staff for AWS maintenance duties and support to operate upper-air soundings | IE | WMO | | # of new technical staff | Number of new technical staff contracted to assist with | Annual or semi-annual progress updates | Capacity | At closure | Country | Number | 0 | 2027 | 2 | 2028 | 0 | 2 | 0 | | | |

| | Title | Description | Lead Participating Organization | Participating Organization | Other Organizations | Indicator Title | Description | Means of Verification | Category | Cycle | Scope | Value Type | Baseline Value | Baseline Year | Total Target Value | Target Completion Year | Annual Targets | | | | | |
|--|--|--|---------------------------------|----------------------------|---|--|--|--|------------|------------|---------|------------|----------------|---------------|--------------------|------------------------|----------------|----|----|----|----|--|
| | | | | | | | | | | | | | | | | | Y1 | Y2 | Y3 | Y4 | Y5 | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | Upgrade AWS to Meet GBON Requirements at two national airports | Upgrade AWS with GBON relevant sensors and adequate amount of sensor replacements for a healthy calibration and maintenance cycle. | IE | WMO | | Number of land-based stations improved | Number of stations as defined in the National Contribution Plan | Annual or semi-annual progress updates | Investment | At closure | Country | Number | 0 | 2027 | 2 | 2028 | 0 | 2 | 0 | | | |
| | | Support to the upgrade of AWS with GBON relevant sensors process | PA | IE | | Number of land-based stations improved | Technical support in tender specification and procurement | Annual or semi-annual progress updates | Investment | At closure | Country | Number | 0 | 2027 | 2 | 2028 | 0 | 2 | 0 | | | |
| | Implementation of WIS 2.0 and Data Management System | Implementation of WIS2.0 compliant data sharing system (automatic) including implementation of data management system. | IE | WMO | Please write if institutions other than the IE and peer advisor are contributing. | WIS 2.0 compliant data management system implemented and operational | Tracks whether a WIS 2.0-compliant data management system has been developed, tested, and made operational | Annual or semi-annual progress updates | Investment | At closure | Country | Number | 0 | 2027 | 1 | 2028 | 0 | 1 | 0 | | | |
| | Site Inspections and Equipment Maintenance | Maintenance toolkit and field calibration kit for sensors | IE | WMO | | # of Land-Based Station Diagnostics and Maintenance Completed | Technical inspections and diagnostic assessments completed for all priority stations. | Annual or semi-annual progress updates | Investment | At closure | Country | Number | 0 | 2027 | 3 | 2030 | 1 | 1 | 1 | | | |
| | Enhancing operation processes and benchmarking equivalent operations | Review and enhance benchmarking the procedures for the observation systems | IE | WMO | | # of benchmarking programs | Implementation of a benchmarking program | Annual or semi-annual progress updates | Investment | At closure | Country | Number | 0 | 2027 | 1 | 2030 | 1 | 0 | 0 | | | |
| | | Support to review and enhance | PA | IE | | # of benchmarking programs | Technical support to Implementation | Annual or semi-annual progress | Investment | At closure | Country | Number | 0 | 2027 | 1 | 2030 | 1 | 0 | 0 | | | |

Risks

The Investment Phase Risk Management Framework should be based on the [SOFF Risk Management Framework](#), incorporating relevant programmatic risks and including additional country-specific risks. Please follow the [methodology established by the Multi-Partner Trust Fund Office \(MPTFO\)](#) presented below.

| | | Impact | | | | |
|------------|-----------------|-------------------|------------|--------------|----------------|----------------|
| | | Insignificant (1) | Minor (2) | Moderate (3) | Major (4) | Extreme (5) |
| Likelihood | Very Likely (5) | Medium (5) | High (10) | High (15) | Very High (20) | Very High (25) |
| | Likely (4) | Medium (4) | Medium (8) | High (12) | High (16) | Very High (20) |
| | Possible (3) | Low (3) | Medium (6) | High (9) | High (12) | High (15) |
| | Unlikely (2) | Low (2) | Low (4) | Medium (6) | Medium (8) | High (10) |
| | Rare (1) | Low (1) | Low (2) | Medium (3) | Medium (4) | High (5) |

| Event | Category | Level | Likelihood | Impact | Mitigating Measures | Risk Owner |
|--|--------------------------|--------|------------|----------|--|------------|
| Challenges in Cooperation, Joint coordination and mis- alignment of goals and processes. | Operational | Medium | Unlikely | Major | Establish a Project Steering Committee; hold quarterly coordination meetings; adopt clear roles and responsibilities; maintain continuous communication with SOFF, Peer Advisor, and national authorities. Hire a strong project execution unit. | IDB/MSJ |
| Non-compliance with fiduciary and procurement standards in some SOFF activities | Financial | Medium | Rare | Moderate | Strict adherence to IDB procurement and FM policies; training for EA staff; close fiduciary supervision; early procurement planning; independent audits. | IDB/MSJ |
| SOFF-funded investments cause environmental or social impacts | Social and Environmental | Low | Rare | Minor | Apply IDB environmental and social safeguards; conduct screening for minor works; implement simple ESMP measures; monitor through supervision visits. | IDB/MSJ |
| NMHS staff depart after being trained | Strategic | High | Possible | Major | Train multiple staff; open trainings ; document all procedures; prepare SOPs; ensure cross training; explore retention incentives where possible. | MSJ |
| Operational efficiency risk, causing slow implementation and delays in procurement, installation and capacity building activities, resulting in failure of the project | Strategic | High | Possible | Major | Conservative timelines; hybrid implementation support by IDB; early procurement preparation; sequential delivery; continuous remote support from Peer Advisor. | IDB/MSJ |
| After the conclusion of the Investment phase, GBON data are not collected or shared or are shared of insufficient quality | Organizational | Medium | Unlikely | Major | Strengthen SOPs; establish WIS 2.0 connectivity; ensure maintenance contracts; train UHM on QC/QA; align with SOFF Compliance Phase requirements. | MSJ |
| Destruction or theft of SOFF-financed equipment and infrastructure | Operational | Medium | Rare | Major | Review and update security SOP and review agreements with land owners (airports). | MSJ |
| Countries cannot make optimal use | Strategic | High | Possible | Moderate | Provide WIS 2.0 training; collaborate with CIMH, CMO, | MSJ |

| Event | Category | Level | Likelihood | Impact | Mitigating Measures | Risk Owner |
|---|--------------------------|--------|------------|----------|---|------------|
| of data, including accessing or using improved forecasts products from the Global Producing Centers throughout the hydromet value chain | | | | | and WMO RWCs; ensure downstream partners (DGCP, CNSA) receive data products | |
| Political instability and regulatory risks which will impact the successful completion of the Investment Phase | Political | Medium | Unlikely | Major | Use conservative timelines; enable remote supervision; select secure installation sites; phased implementation; maintain close dialogue with national authorities and UN security structures. | MSJ |
| Capacity gaps in technical skills after completion of the investment phase | Operational | High | Likely | Major | Develop SOPs and manuals; train multiple staff; implement sequential Investment cycles to gradually fill gaps in technical skills. | MSJ |
| Natural disasters | Social and Environmental | High | Likely | Moderate | Upgrade stations to WMO resilience standards and preparation of a SOP for natural disasters response/preparedness | MSJ |

Budget by UNSDG Categories: Over all

| Budget Lines | Description | IE | WMO | Total |
|---|-------------|-------------------|----------------------|------------------------|
| 1. Staff and other personnel | | \$ 220,000.00 | | \$ 220,000.00 |
| 2. Supplies, Commodities, Materials | | \$ 100,000.00 | | \$ 100,000.00 |
| 3. Equipment, Vehicles, and Furniture, incl. Depreciation | | \$ 125,000.00 | | \$ 125,000.00 |
| 4. Contractual services | | \$ 352,000 | \$ 241,751 | \$ 593,751 |
| 5. Travel | | \$ - | | \$ - |
| 6. Transfers and Grants to Counterparts | | \$ - | | \$ - |
| 7. General Operating and other Direct Costs | | \$ 94,500.00 | | \$ 94,500.00 |
| Project Costs Sub Total | | \$ 891,500 | \$ 241,751.00 | \$ 1,133,251 |
| 8. Indirect Support Costs | | \$ 62,405 | \$ 16,922.57 | \$ 79,327.57 |
| Total | | \$ 953,905 | \$ 258,673.57 | \$ 1,212,578.57 |

Performance-based Tranches Breakdown

| Tranche | | | Total |
|-----------|--------------|-------------|-----------------------|
| Tranche 1 | IE (60%) | \$572,343 | \$658,558.9 |
| | WMO (33.33%) | \$86,215.9 | |
| Tranche 2 | IE (40%) | \$381,562 | \$467,777.9 |
| | WMO (33.33%) | \$86,215.9 | |
| Tranche 3 | IE (0%) | \$0.00 | \$86,241.77 |
| | WMO (33.34%) | \$86,241.77 | |
| | | | \$1,212,578.57 |

Results based budget

| Outcome * | Output * | Agency * | Budget (USD) * |
|--|---|-----------|----------------|
| 1. GBON institutional and human capacity developed | | Sub Total | \$ 666,648.00 |
| | 1.1 National Consultations conducted | IE | \$ 24,500 |
| | | WMO | \$ 7,235.00 |
| | 1.2 NMHS institutional capacity developed | IE | \$ 290,000 |
| | | WMO | \$ 72,420 |
| | 1.3 NMHS human capacity developed | IE | \$ 190,000 |
| | | WMO | \$ 82,493 |
| 2. GBON infrastructure in place | | Sub Total | \$ 327,788 |
| | 2.1 New land- based stations in place | IE | \$ amount |
| | | WMO | \$ amount |
| | 2.2 Improved land-based stations in place | IE | \$ 267,000 |
| | | WMO | \$ 60,788 |
| | 2.3 New upper-air stations in place | IE | \$ amount |
| | | WMO | \$ amount |

| Outcome * | Output * | Agency * | Budget (USD) * |
|--|--|------------------|--------------------|
| | 2.4 Improved upper-air stations in place | IE | \$ amount |
| | | WMO | \$ amount |
| 3. Sustained compliance with GBON | | Sub Total | \$ 138,815 |
| | 3.1 GBON land-based stations commissioning period completed. | IE | \$ 120,000 |
| | 3.2 GBON upper air stations' commissioning period completed. | WMO | \$ 18,815.00 |
| Total | | | \$1,133,251 |