

## **SOFF Investment phase pipeline**

# Guyana

Version: May 2025

Systematic Observations Financing Facility

Weather and climate data for resilience





### **General Information**

| Fund          | MPTF_00281: The System            | MPTF_00281: The Systematic Observations Financing Facility |  |                               |                                       |        |                     |             |  |
|---------------|-----------------------------------|--|--|-------------------------------|---------------------------------------|--------|---------------------|-------------|--|
| FMP Record    | MPTF_00281_00037: SO              | MPTF_00281_00037: SOFF Guyana Investment Phase             |  |                               |                                       |        |                     |             |  |
| MPTFO Project |                                   |  |  |                               |                                       |        |                     |             |  |
| Start Date    |                                   |  |  |                               |                                       |        |                     |             |  |
| End Date      |                                   |  |  |                               |                                       |        |                     |             |  |
| Applicants    | Status                            | Contact T  | Contact Type Name e-mail   |                               | e-mail                                |        | Position            | Telephone   |  |
|               | Active: 17-Feb-2025<br>6:27:00 PM | Project Ma   | Project Manager Gerard P. Alleng gerarda@iadb.org                        |                               |                                       | db.org |                     |             |  |
| Signatories   | Signature Process                 | Role   | Name   | of Organization               |                                       | Name   |                     | Jser Email  |  |
|               | Digital                           | Signatory  |  | : WMO (World Mete<br>ization) | World Meteorological Celeste<br>Saulo |        |                     | csaulo@wmo. |  |
|               | Digital                           | Signatory  | IDB: IDB - Inter-American Gerard P. gerarda Development Bank Alleng .org |                               |                                       |        | gerarda@iadb<br>org |             |  |
| Contacts      | Contact Type                      | Name e-mail Position Additional e-mail Teleph              |  |                               |                                       |        | elephone            |             |  |
|               | No data available.                |  |  |                               |                                       |        |                     |             |  |

#### Description

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.

The large majority (about 90%) of Guyana's population lives along a narrow coastal strip that ranges from a width of 16 to 64 km inland and makes up approximately 10% of the nation's total land area. According to the EU/JRC GHSL (Global Human Settlement Layer), large parts of the country are almost unpopulated. The dominant climate in Guyana is a tropical rainforest climate.

The Guyanese Hydrometeorological Service (or the Hydrometeorological Service of the Cooperative Republic of Guyana, GHS) is the national Hydrological and Meteorological Service of the Republic of Guyana, being a department under the Ministry of Agriculture and operating under the Water and Sewerage Act, 2002. The GHS provides services and products to most of the agencies of the Guyanese government, especially for the Aviation Authority, Ministry of Agriculture, the Emergency Department, regional councils and more.

GHS currently faces a number of challenges that can be summarized as follows:

- 1. An insufficient and too narrow formal mandate.
- 2. Insufficient renumeration.
- 3. Human resources limitations.
- 4. Limited observational capacity.
- 5. Lack of centralized data management system.
- 6. Limited communication with stakeholders.
- 7. Limited outreach.

Currently, the observational network of Guyana consists of six (6) manual stations. Taking into account the GBON standard resolution for the country, Guyana will share data from, at least, six automatic stations. Out of the 6 manual stations, only 1 operates on a twenty-four hours basis, a second one operates on an hourly base, but only during daytime, the rest only during daytime and provide observations only once every four hours. A large number of AWSs that were previously established are of poor quality (45), have become inoperable and are unsalvageable.

Eventually, the GHMS has decided to abandon these stations and started installing stations from a different vendor, which were installed purposely in some of the more difficult locations (installed in different locations from the 6 manual stations), in order to assess their longer-term sustainability and operability. The new equipment was found to cope well with the local conditions. However, due to the high costs of these stations and the very limited budget of GHMS for investments, only four were acquired and installed to date.

In summary, the current observational network of the GHMS is not GBON compliant, except for one station. However, event this station's current sustainability is in continuous risk of failure, due to the high staff turnover.

| Universal                | Gender Equality Marker   | Risk  |             |                            |  |  |  |
|--------------------------|--|---|-------------|----------------------------|--|--|--|
| Markers                  | GEM1 - The Key     Activity contributes to     GEWE in a limited way |   |             |                            |  |  |  |
| Optional                 | WB Income Category   | High Income   | High Income |                            |  |  |  |
| Markers                  | UN LDC   | • No  |             |                            |  |  |  |
|                          | Small Island Developing States (SIDS)                                | • Yes   |             |                            |  |  |  |
| Fund Specific<br>Markers | SOFF Phases  | SOFF Phases  • Investment Phase                       |             |                            |  |  |  |
|                          | EW4AII   | Early Warnings for All initial focus countries  • Yes |             |                            |  |  |  |
|                          | Fragile and conflict-<br>affected situation                          | Fragile and conflict-affected situation  • No         |             |                            |  |  |  |
|                          | Peer advisor   | Peer advisor  • GeoSphere [Austria]                   |             |                            |  |  |  |
| Geographical             | Geographical Scope   | Name of the Region                                    | Region(s)   | Country                    |  |  |  |
| Scope                    | • Country  |   | Americas    | <ul> <li>Guyana</li> </ul> |  |  |  |

|                                       |  |   | Fund managem                                  | nent platform                                      |                     |   |  |  |  |
|---------------------------------------|--|---|---|--|---------------------|---|--|--|--|
| Participating Organizations           | UN Participating Organizations   | Government/ Multilateral/ NGO/ Other New Implementing Entities Partners |   |  |                     |   |  |  |  |
| and their<br>Implementing<br>Partners | WMO - WMO (World<br>Meteorological<br>Organization)                      |   | - IDB - Inter-Americ<br>Plopment Bank         | an   |                     |   |  |  |  |
| Programme and<br>Project Cost         | Participating Organization   | Amoun   | t (in USD)                                    | Comments   |                     |   |  |  |  |
|                                       | Budget Requested   |   |   |  |                     |   |  |  |  |
|                                       | IDB  |   | \$1,802,950.00                                | Includes the 7%                                    | IE fee              |   |  |  |  |
|                                       | WMO  |   | \$128,400.00                                  | Includes the 7%                                    | 6 WMO indirect cost |   |  |  |  |
|                                       | Total Budget Requested   |   | \$1,931,350.00                                |  |                     |   |  |  |  |
|                                       | Tranches   |   |   |  |                     |   |  |  |  |
|                                       | Tranche 1  |   | Tranche 2                                     |  | Tranche 3           |   |  |  |  |
|                                       | IDB (60%) \$1,081,770.00 WMO \$42,795.72 (33.33%)  Total: \$1,124,565.72 |   | IDB (40%)<br>WMO<br>(33.33%)<br><b>Total:</b> | \$721,180.00<br>\$42,795.72<br><b>\$763,975.72</b> | WMO<br>(33.34%)     | \$0.00<br>\$42,808.56<br><b>\$42,808.56</b> |  |  |  |
|                                       | Other Sources (Parallel Funding)   |   |   |  |                     |   |  |  |  |
|                                       | Total  |   | \$1,931,350.00                                |  |                     |   |  |  |  |
| Thematic<br>Keywords                  |  |   |   |  |                     |   |  |  |  |
| Programme                             | Anticipated Start Date   | 15-Jan-   | j-Jan-2026                                    |  |                     |   |  |  |  |
| Duration                              | Duration (In months)   | 36  |   |  |                     |   |  |  |  |
|                                       | Anticipated End Date   | 15-Jan-   | 2029  |  |                     |   |  |  |  |
|                                       |  |   |   |  |                     |   |  |  |  |

## **Narratives**

| Title | Text |  |
|-------|------|--|
|       |      |  |

Close the most significant data gaps

The GBON Global Gap Analysis conducted by WMO in June 2023), considering Guyana as SIDS, stated that the country is responsible for providing data from two 2) surface stations only. However, as Guyana is a continental country with a significantly larger size compared to other SIDS members, the real GBON requirement of internationally shared stations sums up to six (6, as can be seen in table 1) – this was agreed with the technical department of WMO, through the submitted NGA. The current observational network consists of six(6) manual stations, only one of which is providing hourly observations daily, another one is providing hourly observations, but only daytime and the rest are providing observations every four hours, but only during daytime. It should be added that there are some additional gaps within the observations, either due to human factors, transmission challenges (the cellular network does not cover the entire country and in many areas, it is too weak or/unstable) or, more rarely, also due to damaged instruments.

The Guyana Hydrometeorological Service (GHS) does not operate any upper air stations.

Table 1. GBON National Contribution Target

| Typ<br>stat     |        |        | O GBON Global G<br>e 2023 | ap Ana          | GBON National Contribution Target |     |   |
|-----------------|--------|--------|---------------------------|-----------------|-----------------------------------|-----|---|
| Target          |        |        | Reporting Gap             |                 | To improve                        | New |   |
| To improve      |        | mprove |                           | New             |                                   |     |   |
| [# of stations] |        |        |                           | [# of stations] |                                   |     |   |
| Sur             | face   | 2      | 1                         | 1               | 0                                 | 6*  | 0 |
| Upp             | er-air | 1      | 0                         | 0               | 1                                 | 0   | 1 |
|                 |        |        |                           |                 |                                   |     |   |

The target of 6 stations (Table 2) to improve was accepted in the NGA by the WMO Technical Department – as the initial gap analyze was done for a SIDS the deviation can be explained – it was mutually decided that Guyana should be classified as a mainland country regarding GBON standards, therefore the target changed from 2 to 6.

It is highly recommended to replace all of these manual stations with AWSs, since due to numerous issues (lack of relevant personnel, accessibility, safety and security and the need for long-term sustainability).

Table 2. List of international stations for GBON (currently manual, recommended to be upgrade to AWSs)

| Station<br>Num. | Station Name            | Lat          | Lon           | WIGOS station<br>Indicator |
|-----------------|-------------------------|--------------|---------------|----------------------------|
| 1.              | Kamarang                | 5.867° N     | -60.612°<br>W | 0-20000-0-81005            |
| 2.              | Lethem                  | 3.367° N     | -59.800°<br>W | 0-20000-0-81006            |
| 3.              | Mabaruma                | 8.200° N     | -59.783°<br>W | 0-20000-0-81100            |
| 4.              | New Amsterdam           | 6.244° N     | -57.517° W    | 0-20000-0-81058            |
| 5.              | Ebini                   | 5.550° N     | -57.767° W    | 0-20000-0-81010            |
| 6.              | Cheddi Jagan<br>Airport | 6.5035°<br>N | 58.2526°<br>W | 0-20000-0-81002            |

#### Target easy fixes

Thanks to the experience and the know-how gathered by the technical staff of the GHS in deployment and maintenance of surface AWSs, together with the newly already acquired central data management system, soon to be fully real-time, it would quite straightforward to deploy 6 AWSs, in the six locations, where there already exist manual observations for years. The Peer Advisor will support GHS with registration of the new AWSs at the OSCAR/Surface. These stations, having a long climatic record, will be continued to be operated manually as well, for the sake of reference and intercomparison with the new AWSs. The data from both will be stored in the new central data management system. All of these locations are located in governmental property, which will assure their safety, already served by local staff, which would be able to perform basic maintenance, and thus support their sustainability and together with already a proven experience in using WIS2 and transmission through satellites, can assure an immediate and continuous flow of data to the international network.

#### Create leverage

Currently, there are two internationally funded projects related to GHS, which might be of relevance. The first is the regional CREWS Caribbean 2.0, which was already approved. Due to the decision of the Guyanese government to participate in CREWS on a national level, the GHS could only enjoy part of the regional, rather than the national activities under CREWS (these may include support with WIS2 and WIGOS, political leveraging, support for the continuation of the legislation process, etc.).

Caribbean Meteorological Organization (CMO) is operating already a single WIS2 node, through which also Guyana, as a member of CARICOM, is already transmitting its data. The GHS, together with the Peer Advisor, are in a continuous contact with the CREWS Secretariat, as well as the CMO and CIMH, who are helping to facilitate these activities of CREWS in the region. Regular meetings with GHS, CREWS Caribbean and CMO will be held.

The second of which is the EW4AII, which is planned to commence, together with UNDRR, around May 2025. Nevertheless, as part of the SOFF investment phase, possible linkages between these two initiatives should be seriously explored, as any reliable early warning system will be based on accurate real-time observational data. The GHS will be part of the planning of the EW4AII activities in Guyana, and together with the support of the Peer Advisor, will take care of any potential synergies between all three components, thus SOFF, CREWS and EW4AII.

#### Maximize delivery capacity

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.

The IDB has an active portfolio in Guyana with a country strategy engagement that focuses on three priority areas: Resilient Infrastructure Development: Enhancing infrastructure to withstand and adapt to future challenges; Human Capital Development: Improving health and educational outcomes to foster a skilled and healthy workforce; Strengthening Institutional Capacity: Building robust institutions to support effective governance and implementation. Currently there are no IDB programs that can directly support the SOFF investment phase.

There are also cross-cutting issues relating to gender equality, climate change, biodiversity, and digitalization will be integrated into project design to ensure comprehensive and inclusive progress.

Within the Guyana portfolio, the IDB has loans and grants programs in various sectors that are aligned with the purpose of the SOFF, including (i) Support for preparation of Guyana Climate Resilient Water and Sanitation Infrastructure Improvement Program; (ii) Support for Climate Resilient Road Infrastructure II; and (iii) Program to Support Climate Resilient Road Infrastructure Development. In the ongoing programming with the Government of Guyana, the IDB will actively seek to leverage additional resources for hydrometeorology development in the country.

Sub-regional gains

Given the geopolitical circumstances in the region around Guyana and the harsh climatic and geographic conditions in Guyana itself, optimization with neighboring countries is a challenge. There are however several potential collaborations for optimization of the operations of the network deployed. The following have been identified:

- There was a previous attempt of the GHS to foster stronger collaboration, through the Amazon Cooperation Treaty Organization (ACTO), but due to manpower constraints at the GHS, these were never materialized. There is some information exchange with the neighboring Suriname, but much less with Brazil (also due to language barriers).
- 2. Regionally, Guyana is a member state of the Caribbean Community (CARICOM). The Caribbean Meteorological Organization (the CMO) was founded under the auspices of CARICOM and its role is to coordinate the cooperation and collaboration between all the NMHSs of the Member countries. As such, CMO is supporting the GHS with its current meteorological legislation efforts as well as introducing the WIS2 protocol into the data dissemination system of the GHS.
- 3. The Caribbean Institute for Meteorology and Hydrology (CIMH), which is a part of CMO, is responsible for training as well as calibration services for CMO's members. The current calibration capacities of the CIMH are limited to only part of the meteorological parameters and are not suited to any instrument of any vendor, especially of the Vaisala company, whose equipment has proven to work effectively in the conditions of Guyana. Therefore, another solution for calibration should be sought after (to be elaborated later).
- 4. In terms of cooperation with neighboring countries, cooperation with Suriname (also a SOFF country) might be the most relevant, due to the almost identical environmental conditions in both countries. This cooperation could take the form of joint tendering for equipment or harmonization of technical specifications for tendering.

The Implementing Entity (IDB) for the program is also implementing SOFF in several countries in Latin America and the Caribbean and there will be opportunities to collaborate and share experiences across other SOFF beneficiary countries. Of note there IDB has two sub-regional programs that have relevancy for the SOFF program,. The first is "One Caribbean" which covers Caribbean countries and includes Guyana, which is a comprehensive regional approach to promoting sustainable development in the Caribbean and Small Island Developing States. A key pillar of One Caribbean is Resilience, Climate Adaptation, and Disaster Risk Management. The second is Amazonia Forever, which also includes Guyana and aims to upscale financing; strengthen the planning and execution of projects to generate impact; share knowledge and evidence-based innovations and leverage expertise to support policy development; and enhance regional collaboration and coordination. One of the transversal areas of action is Climate, Biodiversity and Forest.

The peer advisor, GeoSphere Austria, is supporting the implementation of SOFF in additional three countries in the Caribbean Region.

SOFF Beneficiary Country Capacity
Assessment

The GHS will be the executing entity for this project. The GHS already has some experience in this area as it has worked with other implementing partners such as the WMO Global Ozone Program and others. In addition, the entire financial and fiduciary management of any project related to the GHS, is being performed together and under the parent ministry of the GHS – the Ministry of Agriculture of Guyana, which has experience in dozens of similar or even bigger projects.

As outlined in the CHD (March, 2024), the GHS currently faces a number of challenges that can be summarized as follows:

- 1. An insufficient and too narrow formal mandate the Water and Sewerage Act does not cover many of the most vital fields of activities of a modern National Meteorological and Hydrological Services (NMHSs) – Disaster Risk Reduction (DRR), aviation and marine services, Climate Services, etc. A new draft legislation was prepared several years ago, but it has never been taken to the Guyanese Parliament.
- 2. Remuneration the applicable staff salary scales of GHMS are not competitive in comparison with comparable job opportunities offered nationally and regionally. This issue causes strong staff rotation and a constant brain, experience and knowhow drain.
- 3. Human resources limitations most of the sections within the GHMS are heavily understaffed. Moreover, education and training in the different specialized areas of hydrometeorology can only be found outside of Guyana (including at the Caribbean Institute for Meteorology and Hydrology (CIMH) in Barbados), it continues to be challenging for the existing staff to stay up-to-date with the developments in the worlds of meteorology, hydrology and the allied sciences.
- 4. Limited observational capacity the current weather and hydrological monitoring network of Guyana is too small, providing data in much less than an hourly base, with extended gaps and mostly not on a real-time basis. A donation of a considerable number of AWSs turned out to be rather counter-productive, as all of the stations were delivered with manufacturer's defects, and despite large efforts in recovering them, these stations can be considered obsolete.
- 5. Lack of centralized data management system most employees of the GHMS do not have easy and comfortable access to the data. Moreover, large parts of the historical data are still not digitalized. (this item is already partially resolved, as such a system was acquired and successfully utilized at the GHS IT infrastructure).
- 6. Lack of communication with stakeholders exchange is limited and happens mostly on an ad-hoc basis.
- 7. Limited outreach since most of the country has only limited, if any, internet, TV or radio coverage, it remains extraordinarily challenging to reach out to faraway communities.

However, to further build capacity and ensure sustainability, it is proposed that a project management unit (PMU) be funded through SOFF for the two years of implementation. Currently there are no existing implementing entity project management unit in place that can adopt this role. 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 persons will then be eventually hired to work permanently in the department through funding from the GHS annual budget. 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.

Investment Phase Alignment with the GBON National Contribution Plan

There is no divergence between the targets stated in the GBON National Contribution Plan and the proposed Investment Phase targets.

Execution model and implementation arrangements

The program will be client-executed and a project execution unit will be established within the GHS as the designated executing entity (EE). The EE will be responsible for (i) the project's technical, administrative, and operational management; (ii) the procurement of works, goods, and services; (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.

A summary of the procurement policies of the IDB in relation to the procurement of Works and Goods are as follows:

- 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.

#### **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, misprocurement, 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.

A summary of the procurement policies of the IDB in relation to the selection and contracting of Consultants financed are as follows:

- 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 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.
- 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.

#### **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

#### Fund management platform

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.

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 execution arrangements will be established through a technical cooperation agreement between the IDB and the Government of the Co-operative Republic of Guyana.

#### Private sector involvement

Currently, the GHS 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, it is unknown who is carrying any observations. However, mostly such observational stations tend to be not sustainable and relatively short-lived.

Related to the private sector, there is no across-country private meteorological service or firm that operates an observational network and that could provide support to the GBON compliance strategy and or that could be approached for a potential partnership. There is, however, the potential for interaction with some of the bigger farms, as well as the oil industry (for the marine stations), but it would likely comprise a more "services provided to client" approach and not a joint venture or a public private partnership to enhance the national capacities as a whole.

However, in order to support the sustainability, of the planned GBON stations network, a public-private partnership is planned, in which a private company (most probably the vendor/s of the surface and upper air stations) will provide a high-level maintenance of the stations (if required), remote support, in-site visit (if required) and support with the calibration of the reference instruments (for the surface stations) and the upper-air station's instruments.

#### Civil society participation

The GHS has strong ties with the local communities residing around the GBON surfacestations, such as Mabaruma, Lethem, Kamarang and others. An additional effort will be made, during the implementation phase, to strengthen the engagement with these local communities, bringing them to help support the sustainability, security and safety of these stations. The National Contribution Plan envisages special meetings for 4 out of the 6 locations, bringing the leaders of these communities and explaining them the potential benefits of the new data for their communities and the importance of their continuous support with them.

#### Fiduciary systems

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".

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:

- Requirement 1. Eligibility of expenditures
- · Requirement 2. Disbursement management
- · Requirement 3. Rendering of accounts
- Requirement 4. Project financial supervision
- Requirement 5. Project financial reporting system
- Requirement 6. Internal control
- Requirement 7. Independent external auditors
- Requirement 8. External financial audit of the project
- Requirement 9. Prohibited practices
- Requirement 10. Transparency

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) <u>Procurement of Goods and Works financed by the IDB;</u> (ii) <u>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:</u>

- Value for money
- Economy refers to buying inputs of the appropriate quality at the right price
- Efficiency
- Equality
- Transparency
- Integrity

#### Social and environmental safeguards

The project will be governed by IDB's Environmental and Social Policy Framework, which is a consolidated framework covering environment, involuntary resettlement, and indigenous peoples. 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. 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.

The Bank will undertake a gender assessment as part of its Institutional Capacity Assessment of the executing entity to manage the project. The IACS 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.

| Dispute resolution mechanism                | In accordance with the environmental and social standards of the IDB, there are <a href="three-channels">three-channels</a> by which an entity can file a complaint related to an -IDB financed project that may cause environmental or social damage,:  1. At the local level, file a complaint though the executing entity 2. With the IDB group, through its IDB Complaints form  Independent Mechanism, through an accountability office independent from project teams which facilitates dispute resolution processes to resolve the concerns raised.  Additionally the IDB will report to the SOFF Secretariat including in its annual reports, on any disputes raised by project. |
|---|--|
| Additional relevant policies and procedures | None   |

# **SDG Targets**

| Target  | Description  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|
| Main Goals  | Main Goals   |  |  |  |  |  |  |
| Goal 13. Take urge  | 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 Goa   | ls .   |  |  |  |  |  |  |
| 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 |
|--------------------|-------------|
| No data available. |             |

#### **Contribution to SDGs**

| Participating<br>Organization               | % TARGET_5.5 | % TARGET_13.1 | % TARGET_13.2 | % TARGET_13.3 | % TARGET_13.b | % Total |
|---|--------------|---------------|---------------|---------------|---------------|---------|
| IDB   | 10           | 10            | 30            | 30            | 20            | 100     |
| WMO   | 0            | 0             | 50            | 50            | 0             | 100     |
| Total<br>contribution by<br>target          | 10           | 10            | 80            | 80            | 20            |         |
| Project<br>contribution to<br>SDG by target | 5            | 5             | 40            | 40            | 10            | 100     |

### List of documents

| Document   | Document<br>Type | Document<br>Source | Document<br>Abstract                                   | Document<br>Date | Classification | Featured | Status        | Modified<br>By           | Modified<br>On                   |
|--|------------------|--------------------|--|------------------|----------------|----------|---------------|--------------------------|----------------------------------|
| Guyana Annex - Peer Advisor TOR.docx   | Other<br>Docs    | Project            | Peer<br>Advisor<br>TORs IP<br>Phase                    | 27-Feb-<br>2025  | Internal       | No       | Finaliz<br>ed | gerarda<br>@iadb.or<br>g | 27-Feb-<br>2025<br>3:28:14<br>PM |
| Gateway Annex - Annual Targets GY.do cx  | Other<br>Docs    | Project            | Annual<br>Targets<br>annex                             | 25-Feb-<br>2025  | Internal       | No       | Finaliz<br>ed | gerarda<br>@iadb.or<br>g | 27-Feb-<br>2025<br>7:25:18<br>AM |
| Financial Management Guidelines for IDB-financed Projects (OP- 273-12) (6) pdf   | Other<br>Docs    | Project            | IDB<br>Financial<br>managem<br>ent<br>guidelines       | 26-Feb-<br>2025  | Internal       | No       | Finaliz<br>ed | gerarda<br>@iadb.or<br>g | 26-Feb-<br>2025<br>2:26:21<br>PM |
| Policies for the Selection and Contracting of Consultants Financed by the Inter- American Development Bank. Approved version (5).pdf | Other<br>Docs    | Project            | IDB Procureme nt Policy for Consultant s               | 26-Feb-<br>2025  | Internal       | No       | Finaliz<br>ed | gerarda<br>@iadb.or<br>g | 26-Feb-<br>2025<br>2:24:50<br>PM |
| Policies for the Procurement of Goods and Works financed by the Inter- American Development Bank. Approved version (9).pdf           | Other<br>Docs    | Project            | Procureme<br>nt Policy<br>for Goods<br>and Work<br>IDB | 26-Feb-<br>2025  | Internal       | No       | Finaliz<br>ed | gerarda<br>@iadb.or<br>g | 26-Feb-<br>2025<br>2:23:24<br>PM |
| Environmental and Social Policy Framework 10- 13-20M EN (13).pdf   | Other<br>Docs    | Project            | IDB<br>Environme<br>ntal and<br>Social<br>Policy       | 26-Feb-<br>2025  | Internal       | No       | Finaliz<br>ed | gerarda<br>@iadb.or<br>g | 26-Feb-<br>2025<br>2:17:17<br>PM |
| CHD Report Guyana-final- screened.pdf  | Other<br>Docs    | Project            | Country<br>Hydromet<br>Diagnostic<br>s                 | 25-Mar-<br>2024  | External       | No       | Finaliz<br>ed | gerarda<br>@iadb.or<br>g | 20-Feb-<br>2025<br>1:40:22<br>PM |
| NCP -<br>Guyana.pdf  | Other<br>Docs    | Project            | GBON<br>National<br>Contributi<br>on Plan<br>Guyana    | 11-Nov-<br>2024  | External       | No       | Finaliz<br>ed | gerarda<br>@iadb.or<br>g | 20-Feb-<br>2025<br>1:25:15<br>PM |
| GBON National Gap Analysis Report- Guyana- final.pdf   | Other<br>Docs    | Project            | GBON<br>National<br>Gap<br>Analysis                    | 13-Feb-<br>2024  | External       | No       | Finaliz<br>ed | gerarda<br>@iadb.or<br>g | 20-Feb-<br>2025<br>1:23:43<br>PM |

# **Project Results**

| Outcome  | Output | Description |
|--|--------|-------------|
| 1. GBON institutional and human capacity developed |        |             |

Fund management platform

| Outcome | Output                               | Description  |
|---------|--------------------------------------|--|
|         | 1.1 National Consultations conducted | National consultations including with CSOs, and other relevant stakeholders conducted. |

| Outcome | Output  |  | Description   |  |   |                        |  |  |
|---------|---|--|---|--|---|------------------------|--|--|
|         | Activities  |  |   |  |   |                        |  |  |
|         | Title   | Description  | 1   | Lead<br>Participating<br>Organization                | Participating<br>Organization   | Other<br>Organizations |  |  |
|         | National consultations including with CSOs, and other relevant stakeholders conducted | Conduct con workshops to the legislation of a new law institutional for the Hydrometed Service, to rexisting and law (Water as Sewerage As and ensure structure of enables it to purpose. The legislative frestablishing responsibility GHS in relating generation as disseminated and climate use the wear observation infrastructure rolled out the SOFF fundires. | to support on process of and structure orological eplace the outdated and ct 2002) the the GHS obe fit-forme new amework, the the ty of the ion to and on weather data and ther | IDB - IDB -<br>Inter-American<br>Development<br>Bank | WMO -     WMO (World     Meteorologic     al     Organization )   |                        |  |  |
|         | Program<br>advocacy on<br>legal framework   | Advocacy to<br>establishme<br>legal framev<br>defining role<br>mandate of  | nt of this<br>vork<br>e and   | IDB - IDB -<br>Inter-American<br>Development<br>Bank | <ul> <li>WMO -         WMO (World         Meteorologic         al         Organization         )</li> </ul> |                        |  |  |
|         | Program launch<br>for key<br>stakeholders   | Project initial with all relevant Ministries are Development to raise awa the SOFF place ensure coordinated concludity prepare for operational   | vant  nd  nt Partners  reness of  ans and to  dination,  ling event  or   | IDB - IDB -<br>Inter-American<br>Development<br>Bank | WMO -     WMO (World     Meteorologic     al     Organization )   |                        |  |  |
|         | Stakeholders<br>meetings  | Conduct rou<br>(yearly) meet<br>the other put<br>private stake<br>regarding the<br>and opportu-<br>related to the<br>data and data<br>products to<br>available   | etings with<br>ablic and<br>eholders<br>ae needs<br>unities<br>ae new<br>ta-based   | IDB - IDB -<br>Inter-American<br>Development<br>Bank | WMO -     WMO (World     Meteorologic     al     Organization )   |                        |  |  |
|         | GESI campaign   | Conduct a g<br>Equality and<br>Inclusion ca<br>that include<br>assessment  | l Social<br>mpaign<br>s a GESI  | IDB - IDB -<br>Inter-American<br>Development<br>Bank | WMO -     WMO (World     Meteorologic     al     Organization )   |                        |  |  |

| Outcome | Output   |  | Description   | on   |   |  |  |
|---------|--|--|---|--|---|--|--|
|         | CSOs and indigenous groups and commun workshops leaders in the Mabaruma, E Kamarang an areas to sens promote the designated w stations in the areas. |  | with CSOs nity ne Ebini, nd Lethem asitize and e GBON weather               | IDB - IDB -<br>Inter-American<br>Development<br>Bank | WMO -     WMO (World     Meteorologic     al     Organization ) |  |  |
|         | capacity developed   |  | NMHS institutional capacity required to operate the GBON network developed. |  |   |  |  |

| Outcome | Output   | Descript  |   | otion  |   |                     |  |  |  |  |  |
|---------|--|---|---|--|---|---------------------|--|--|--|--|--|
|         | Activities   |   |   |  |   | Other Organizations |  |  |  |  |  |
|         | Title  | Description   | 1   | Lead Participating Organization                      | Participating<br>Organization   |                     |  |  |  |  |  |
|         | Revision of the National Hydrometeorolog ical Service of Guyana (GHS) strategic plan and development of an operational plan. | Strategic Plathe National Hydrometeo Service of G (GHS) strate and develop operational perational peration operation operation of the stablish state operating properation of the stablish state operation operation of the stablish state operation of the state operation operation of the state operation operation of the state operation operation operation operation operation operation operation operation of the state operation | erological euyana egic plan plan. endard cocedures, onal ion with e, quality et and | IDB - IDB -<br>Inter-American<br>Development<br>Bank | WMO -     WMO (World     Meteorologic     al     Organization )   |                     |  |  |  |  |  |
|         | Implementation<br>of Quality<br>Management<br>System   | Update the I program, by the already of Standard Op Procedure (Standard Op Quality assurance/quality assurance/quality control for the operations of Quality Management   | bringing existing perating SOP) and uality he station up-to- nentation              | IDB - IDB -<br>Inter-American<br>Development<br>Bank | WMO -     WMO (World     Meteorologic     al     Organization )   |                     |  |  |  |  |  |
|         | Project Execution<br>Capacity Building   | Establishme GHS of a pro execution te including pro managemen stakeholder managemen support the of the project  | oject cam, oject at and at skills to execution                                      | IDB - IDB -<br>Inter-American<br>Development<br>Bank |   |                     |  |  |  |  |  |
|         | Gender sensitive capacity building   | Deliver capa<br>building acti<br>gender-sens<br>topics in the<br>of SOFF ope  | vities on<br>sitive<br>context  | IDB - IDB -<br>Inter-American<br>Development<br>Bank | WMO -     WMO (World     Meteorologic     al     Organization )   |                     |  |  |  |  |  |
|         | Gender inclusion   | Promote ger<br>equality by<br>establishing<br>thresholds for<br>participation<br>related activ  | minimum<br>or female<br>n in SOFF-  | IDB - IDB -<br>Inter-American<br>Development<br>Bank | <ul> <li>WMO -<br/>WMO (World<br/>Meteorologic<br/>al<br/>Organization</li> <li>)</li> </ul>                |                     |  |  |  |  |  |
|         | Data Policy<br>Alignment   | Support in for<br>policies or no<br>strategies for<br>sharing and<br>data service<br>Guyana with<br>National Sta  | ational<br>or data<br>public<br>es. Aligning<br>of the WMO                          | IDB - IDB -<br>Inter-American<br>Development<br>Bank | <ul> <li>WMO -         WMO (World         Meteorologic         al         Organization         )</li> </ul> |                     |  |  |  |  |  |

| Outcome                   | Output  |  | Description   | on   |   |                        |  |  |  |
|---------------------------|---|--|---|--|---|------------------------|--|--|--|
|                           | GHS business<br>model<br>development              | Development<br>business modeligns with Continuous Network's<br>sustainability<br>objectives  | odel that<br>GBON   | IDB - IDB -<br>Inter-American<br>Development<br>Bank | WMO -     WMO (World     Meteorologic     al     Organization ) |                        |  |  |  |
|                           | 1.3 NMHS human of developed                       | capacity   | NMHS hur  |  | red to operate the C  | BBON network           |  |  |  |
|                           | Activities  |  |   |  |   |                        |  |  |  |
|                           | Title   | Description  | 1   | Lead Participating Organization                      | Participating<br>Organization                                   | Other<br>Organizations |  |  |  |
|                           | GHS Leadership<br>training program                | Training and development following competencies senior leader at the Nation Hydrometer Service of Gleadership, for management management human resonance management m | es for the ership team nal prological suyana: financial at, project arce                                | IDB - IDB -<br>Inter-American<br>Development<br>Bank |   |                        |  |  |  |
|                           | GHS technical staff training program: surface air | Training and development technical state calibration of surface observations. The program will the procedurations of automatic sustations will be done collaboration CIMH and very experts.  | at of the aff for the aff for the ervational e training I include res for the e and of urface in n with | IDB - IDB -<br>Inter-American<br>Development<br>Bank | WMO -     WMO (World     Meteorologic     al     Organization ) |                        |  |  |  |
|                           | GHS technical staff training program: Upper air   | Training and development for the technical and observers' staff with the maintenance, operation and calibration of the upper-air observational station. The training will be done in collaboration with CIMH and vendo   |   | IDB - IDB -<br>Inter-American<br>Development<br>Bank | WMO -     WMO (World     Meteorologic     al     Organization ) |                        |  |  |  |
| 2. GBON infrastructure in |   | experts.   |   |  |   |                        |  |  |  |
| place                     | 2.2 Improved land-<br>stations in place.          | -based   | systems, c  | data   | s and related equip<br>andard operating p                       |                        |  |  |  |

| Outcome | Output                               |  | Description   | on   |   |                        |
|---------|--------------------------------------|--|---|--|---|------------------------|
|         | Activities                           |  |   |  |   |                        |
|         | Title                                | Description  |   | Lead<br>Participating<br>Organization                | Participating<br>Organization                                   | Other<br>Organizations |
|         | AWS<br>procurement                   | Procurement<br>surface AW S  |   | IDB - IDB -<br>Inter-American<br>Development<br>Bank | WMO -     WMO (World     Meteorologic     al     Organization ) |                        |
|         | Storage building                     | Construction storage for s parts and ICT equipment.  | pare  | IDB - IDB -<br>Inter-American<br>Development<br>Bank |   |                        |
|         | Vehicle procurement                  | Procurement mentioned in Guyana suffer lack/poor road especially in hinterland, maccessibility stations quite challenge, who be resolved to adequate velocity of the GHS and old and slow approach the time. Without ability of procurement of the GHS count access make stations. The total invested totally not sustainable. | the NCP, ers from a ads, the hich can only with nicles. Wehicles re already by eir end life t any curing e staff of ld simply nost of Causing stment to | IDB - IDB -<br>Inter-American<br>Development<br>Bank |   |                        |
|         | Vendor technical visits              | Continuous to support of the including year calibration of reference instruments supportechnician visudemand   | e vendor,<br>arly<br>the<br>truments,<br>ort,   | IDB - IDB -<br>Inter-American<br>Development<br>Bank | WMO -     WMO (World     Meteorologic     al     Organization ) |                        |
|         | Calibration<br>system<br>procurement | Procurement set of instruments to calibration, to with 2 calibration and 2 field contoning to facilitate intercomparion-site and realibration  | nents to rence for ogether ation kits omputers, son and   | IDB - IDB -<br>Inter-American<br>Development<br>Bank | WMO -     WMO (World     Meteorologic     al     Organization ) |                        |
|         | 2.3 New upper-air place.             | stations in  |   |  | elated equipment, loandard operating p                          |                        |

| Outcome                           | Output Description   |  |   |  |  |                       |  |  |  |  |
|-----------------------------------|--|--|---|--|--|-----------------------|--|--|--|--|
|                                   | Activities   |  |   |  |  |                       |  |  |  |  |
|                                   | Title  | Description  | 1   | Lead Participating Organization                      | Participating<br>Organization  | Other<br>Organization |  |  |  |  |
|                                   | Procurement of<br>Upper-Air facility   | Establish a r<br>Upper-Air in<br>hydrogen ge<br>facilities. Pro<br>consumable<br>a year period   | cluding<br>eneration<br>ovide for<br>costs for            | IDB - IDB -<br>Inter-American<br>Development<br>Bank | WMO -     WMO (World     Meteorologic     al     Organization )                              |                       |  |  |  |  |
|                                   | Hydrogen provide for generator training operation maintena hydrogen and stora equipmen |  | he safe<br>nd basic<br>e of<br>eneration                  | IDB - IDB -<br>Inter-American<br>Development<br>Bank | WMO -     WMO (World     Meteorologic     al     Organization )                              |                       |  |  |  |  |
|                                   | SOP<br>development   | Develop rob<br>Standard Op<br>Procedures<br>safe and reli<br>operation of<br>upper-air sta   | perating<br>for the<br>able<br>the                        | IDB - IDB -<br>Inter-American<br>Development<br>Bank | <ul> <li>WMO -<br/>WMO (World<br/>Meteorologic<br/>al<br/>Organization</li> <li>)</li> </ul> |                       |  |  |  |  |
|                                   | Procurement of surface level agreement   | Develop terr<br>reference ar<br>specification<br>procurement<br>Service Leve<br>Agreement v<br>instrument<br>manufacture<br>including<br>environment<br>sustainabilit<br>consideration | nd<br>n for the<br>t and<br>el<br>with<br>ers,<br>tal and | IDB - IDB -<br>Inter-American<br>Development<br>Bank | WMO -     WMO (World     Meteorologic     al     Organization )                              |                       |  |  |  |  |
|                                   | Construction of<br>Upper-air station<br>enclosure                                      | Construction enclosure for upper-air state together with sufficient state place for the consumable   | or the<br>ation,<br>h<br>orage                            | IDB - IDB -<br>Inter-American<br>Development<br>Bank |  |                       |  |  |  |  |
| 3. Sustained compliance with GBON |  |  |   |  |  |                       |  |  |  |  |
|                                   | 3.1 GBON land-base commissioning per completed.  |  | country-s   | pecific standard co                                  | commissioning perions are verified by WMO  | nd maintenance        |  |  |  |  |
|                                   | Activities   |  |   |  |  |                       |  |  |  |  |
|                                   | Title  | Description  | 1   | Lead Participating Organization                      | Participating<br>Organization  | Other<br>Organization |  |  |  |  |
|                                   | Operational costs<br>for GBON<br>surface stations                                      | Operational<br>2 years for 6<br>surface stat<br>includes, sp<br>repairs  | GBON<br>ions. This  | IDB - IDB -<br>Inter-American<br>Development<br>Bank | WMO -     WMO (World     Meteorologic     al     Organization )                              |                       |  |  |  |  |

# Signature Indicators

| Indicator<br>Title | Component<br>Title | Description | Means of<br>Verification | Category | Cycle | Scope | Value Type | Baseline<br>Value | Baseline<br>Year | Target<br>Value | Target<br>Year | Linked<br>Outco<br>/ Outp |
|--------------------|--------------------|-------------|--------------------------|----------|-------|-------|------------|-------------------|------------------|-----------------|----------------|---------------------------|
|--------------------|--------------------|-------------|--------------------------|----------|-------|-------|------------|-------------------|------------------|-----------------|----------------|---------------------------|

No signature indicators available.

# Imported Fund Outcome / Output Indicators

| Indicator<br>Title                                      | Component<br>Title | Description  | Means of<br>Verification                                  | Category   | Cycle      | Scope   | Value Type | Baseline<br>Value | Baseline<br>Year | Target<br>Value | Target<br>Year |
|---|--------------------|--|---|------------|------------|---------|------------|-------------------|------------------|-----------------|----------------|
| Number<br>of land-<br>based<br>stations<br>improved     |                    | Number of stations as defined in the National Contribution Plan.                 | Progress<br>updates/An<br>nual or<br>quarterly<br>reports | Investment | At closure | Country | Number     | 0                 | 2026             | 6               | 2026           |
| Number<br>of new<br>upper-air<br>stations<br>installed  |                    | Number of<br>stations as<br>defined in<br>the National<br>Contributio<br>n Plan. | Progress<br>updates/An<br>nual or<br>quarterly<br>reports | Investment | At closure | Country | Number     | 0                 | 2026             | 1               | 2027           |
| GBON<br>land-<br>based<br>stations'<br>commissi<br>oned |                    | Number of stations as defined in the National Contribution Plan.                 | Progress<br>updates/An<br>nual or<br>quarterly<br>reports | Policy     | At closure | Country | Number     | 0                 | 2026             | 6               | 2027           |
| GBON<br>upper air<br>stations'<br>commissi<br>oned      |                    | Number of stations as defined in the National Contribution Plan.                 | Progress<br>updates/An<br>nual or<br>quarterly<br>reports | Policy     | At closure | Country | Number     | 0                 | 2026             | 1               | 2027           |

## **Project Indicators**

|   | Fund management platform                       |                                     |                          |          |            |         |            |                   |                  |                 |                |   |
|---|--|-------------------------------------|--------------------------|----------|------------|---------|------------|-------------------|------------------|-----------------|----------------|---|
| Indicator<br>Title  | Component<br>Title                             | Description                         | Means of<br>Verification | Category | Cycle      | Scope   | Value Type | Baseline<br>Value | Baseline<br>Year | Target<br>Value | Target<br>Year | L<br>(                                  |
| # of consultat ion worksho ps to support the legislatio n process.  |  | Consultatio<br>ns on<br>legislation | Consultatio<br>n Report  | Other    | At closure | Country | Number     | 0                 | 2025             | 2               | 2027           | 1 1 1 C C C C C C C C C C C C C C C C C |
|   | % of female participants in the workshops      | Consultatio<br>ns on<br>legislation | Consultatio<br>n report  | Other    | At closure | Country | Percentage | 0                 | 2025             | 50%             | 2027           |   |
| # of worksho ps for Advocac y towards the establish ment of this legal framewor k defining role and mandate of the GHS. |  | Advocacy<br>consultation<br>s       | Consultatio<br>ns Report | Other    | At closure | Country | Number     | 0                 | 2025             | 2               | 2027           | ( : C : C : C : C : C : C : C : C : C : |
|   | % of female participants in advocacy workshops | Advocacy<br>consultation<br>s       | Consultatio<br>ns Report | Other    | At closure | Country | Percentage | 0                 | 2025             | 50%             | 2027           |   |

| Indicate<br>Title   | r Component<br>Title             | Description                                   | Means of<br>Verification | Category | Cycle      | Scope   | Value Type | Baseline<br>Value | Baseline<br>Year | Target<br>Value | Target<br>Year | L<br>(                            |
|---|----------------------------------|---|--------------------------|----------|------------|---------|------------|-------------------|------------------|-----------------|----------------|-----------------------------------|
| # of events on project initiation and conclusi n with al relevant Ministrie s and Develop ment Partners to raise awarene s of the SOFF plans and to ensure coordina ion, and concludi ng event to prepare for operatio al phase | o I                              | Events undertaken at start and end of project | Events Report            | Other    | At closure | Country | Number     | 0                 | 2025             | 2               | 2027           | ( : ( ii r r c c c ( 1 ) ( ii c c |
|   | % of females in events           | Events undertaken at start and end of project | Events<br>Report         | Other    | At closure | Country | Percentage | 0                 | 2025             | 50%             | 2027           |                                   |
| # of routine (yearly) meeting with the other public and private stake holders regarding the needs and opportunities related to the new data and databased products to be available.   | g<br>n<br>o                      | Public and private sector meetings            | Meetings<br>Reports      | Capacity | Yearly     | Country | Number     | 0                 | 2025             | 2               | 2027           | ( : C ii r r c c c C 1 N C ii c c |
|   | % of females in routine meetings | Public and private sector meetings            | Meetings<br>reports      | Capacity | At closure | Country | Percentage | 0                 | 2025             | 50%             | 2027           |                                   |

| # of Gender Equality and Social Inclusion assessm ent   | Component Title | Description  Gender Assessment | Means of<br>Verification<br>Assessment<br>Report | Category | Cycle At closure | Scope   | Value Type Number | Baseline<br>Value | Baseline<br>Year<br>2025 | Target Value | Target<br>Year<br>2026 | L ( / / C : C : C C : C C : C C C C : C C C C |
|---|-----------------|--------------------------------|--|----------|------------------|---------|-------------------|-------------------|--------------------------|--------------|------------------------|---|
|   | No componer     | nts available.                 |  |          |                  |         |                   |                   |                          |              |                        |   |
| # of outreach campaig ns to women, girls, youth and indigeno us groups.   |                 | Campaigns                      | Campaign<br>Report                               | Capacity | At closure       | Country | Number            | 0                 | 2025                     | 1            | 2026                   | ( : C ii r r r c c c ( 1 N C ii c c c         |
|   | No componer     | nts available.                 |  |          |                  |         |                   |                   |                          |              |                        |   |
| # of annual worksho ps with CSOs and community leaders in the Mabarum a, Ebini, Kamaran g and Lethem areas to sensitize and promote the GBON designated weather stations in these areas |                 | Community Workshops            | Workshop<br>Reports                              | Capacity | At closure       | Global  | Number            | O                 | 2025                     | 4            | 2027                   | ( : C ii r r c c c ( 1 N C ii c c c           |

| Indicator<br>Title   | Component<br>Title       | Description                             | Means of<br>Verification | Category | Cycle      | Scope   | Value Type | Baseline<br>Value | Baseline<br>Year | Target<br>Value | Target<br>Year |  |
|--|--------------------------|---|--------------------------|----------|------------|---------|------------|-------------------|------------------|-----------------|----------------|--|
|  | No componer              | nts available.                          |                          |          |            |         |            |                   |                  |                 |                |  |
| # of GHS' strategic plan develop ment of SOPs, and operation al documen tation associate d with maintena nce, quality manage ment and operation of the GBON in Guyana revised. |                          | Developme<br>nt of<br>strategic<br>plan | Plan                     | Policy   | At closure | Country | Number     | 0                 | 2025             | 1               | 2027           |  |
|  | No components available. |   |                          |          |            |         |            |                   |                  |                 |                |  |
| # of<br>Quality<br>Manage<br>ment<br>Systems<br>impleme<br>nted  |                          | QMS implemente d                        | System Report            | Capacity | At closure | Country | Number     | 0                 | 2025             | 1               | 2027           |  |
|  | No componer              | nts available.                          |                          |          |            |         |            |                   |                  |                 |                |  |
| # of<br>project<br>executio<br>n teams<br>establish<br>ed  |                          | PEU                                     | PEU Report               | Capacity | At closure | Country | Number     | 0                 | 2025             | 1               | 2026           |  |

|  |                    |  |                          | Tu.      | nd management pla |         |            |                   |                  |                 |                |
|--|--------------------|--|--------------------------|----------|-------------------|---------|------------|-------------------|------------------|-----------------|----------------|
| Indicator<br>Title   | Component<br>Title | Description                                  | Means of<br>Verification | Category | Cycle             | Scope   | Value Type | Baseline<br>Value | Baseline<br>Year | Target<br>Value | Target<br>Year |
|  | No compone         | nts available.                               |                          |          |                   |         |            |                   |                  |                 |                |
| # of capacity building programs on gender- sensitive topics in the context of SOFF operation s impleme nted  |                    | Capacity<br>building<br>program on<br>gender | Report                   | Capacity | At closure        | Country | Number     | 0                 | 2025             | 1               | 2026           |
|  | No compone         | nts available.                               |                          |          |                   |         |            |                   |                  |                 |                |
| # of training programs conducte d for the following compete ncies for the senior leadershi p team at the National Hydrome teologica I Service of Guyana: leadershi p, financial manage ment, project manage ment, and human resource |                    | Leadership<br>Training<br>Program            | Report                   | Capacity | At closure        | Country | Number     | 0                 | 2025             | 1               | 2026           |

| Indicator<br>Title  | Component<br>Title | Description                                  | Means of<br>Verification   | Category | Cycle      | Scope   | Value Type | Baseline<br>Value | Baseline<br>Year | Target<br>Value | Target<br>Year |
|---|--------------------|--|----------------------------|----------|------------|---------|------------|-------------------|------------------|-----------------|----------------|
| # of training orograms conducte d for the technical staff with the calibratio n of the surface observati onal network   |                    | Technical<br>Staff<br>Training<br>Program    | Report                     | Capacity | At closure | Country | Number     | 0                 | 2025             | 1               | 2026           |
|   | No componer        | nts available.                               |                            |          |            |         |            |                   |                  |                 |                |
| # of training programs conducte d for the technical and observer s' staff with the maintena nce, operation and calibratio n of the upper-air observati onal station |                    | Technical Staff Training Program - Upper air | Report                     | Capacity | At closure | Country | Number     | 0                 | 2025             | 1               | 2026           |
|   | No componer        | nts available.                               |                            |          |            |         |            |                   |                  |                 |                |
| # of policies or national strategie s formulate d for data sharing and public data services.  |                    | National<br>policy/strate<br>gy              | Policy/Strat<br>egy Report | Policy   | At closure | Country | Number     | 0                 | 2025             | 1               | 2027           |
|   |                    | nts available.                               |                            |          |            |         |            |                   |                  |                 |                |

| Indicator<br>Title   | Component<br>Title | Description                  | Means of<br>Verification | Category | Cycle      | Scope   | Value Type | Baseline<br>Value | Baseline<br>Year | Target<br>Value | Target<br>Year |
|--|--------------------|------------------------------|--------------------------|----------|------------|---------|------------|-------------------|------------------|-----------------|----------------|
| # of GHS' business model develope d that aligns with GBON Network' s sustaina bility objective s |                    | Business<br>model for<br>GHS | Model<br>Report          | Capacity | At closure | Country | Number     | 0                 | 2025             | 1               | 2027           |

No components available.

## Risks

| Event  | Category   | Level | Likelihood | Impact       | Mitigating Measures   | Risk Owner          |
|--|--|-------|------------|--------------|---|---------------------|
| Non-compliance with fiduciary and procurement standards in some SOFF activities  | • Operati<br>onal                                      | Low   | Unlikely   | Minor        | To ensure compliance and avoid the risk of mis-procurement, the executing agency will be trained in the procurement and fiduciary policies of the IDB   | Executing agency    |
| SOFF-funded investments cause environmental or social impacts  | • Operati<br>onal                                      | Low   | Unlikely   | Minor        | The execution of the project activities will adhere to the environmental and social safeguards policy and practices of the IDB. The EA will be trained in these safeguards as part of the institutional capacity building effort.   | Executing<br>Agency |
| GHS staff depart after being trained   | <ul><li>Operati onal</li><li>Organiz ational</li></ul> | High  | Likely     | Moder<br>ate | Through a strong political leverage and advocacy, the GHS will help raise the recognition of the importance of the role of the Service and the need to adequately support its work to the Government of Guyana.   | GHS                 |
| Slow implementation and delays in procurement, installation and capacity building activities.                              | <ul><li>Organiz ational</li><li>Regulat ory</li></ul>  | High  | Likely     | Major        | There will be regular project reporting and meetings. The EA will be trained in and follow the procurement policies of the Bank. The EA in collaboration with the Bank., will have regular administration and supervision missions to ensure timelines for implementation are maintained.   | Executing agency    |
| After the conclusion of the Investment phase, GBON data are not collected or shared or are shared of insufficient quality. | • Operati<br>onal                                      | High  | Possible   | Major        | The data collection from stations will be monitored continuously by the technical department, the forecasting department as well as the climatology department, updating the technical department for immediate required actions. The steering committee will examine monthly reports and deal with appearing major issues. The GHS has protocols for the sharing of information with stakeholders. | Executing<br>Agency |

| Destruction or theft of SOFF-financed equipment and infrastructure.  | • Operati<br>onal   | High | Possible | Major        | The stations will be continuously monitored and any disruption in transmission will be detected and resolved. All of the low-resolution stations are located in governmental facilities.   | Executing<br>Agency |
|--|---|------|----------|--------------|--|---------------------|
| Meteorological conditions that affect the deployment activities by limiting accessibility to sites and constructions as needed.  | <ul> <li>Social<br/>and<br/>Environ<br/>mental</li> </ul> | High | Likely   | Major        | Schedule work plan around national weather forecasts; locate construction materials close to proposed site.  | Execution<br>Agency |
| Limited availability of potential staff members to be trained to ensure full operations of the network.  | • Operati onal  | High | Likely   | Major        | Contracting of support consultants through the SOFF program  | Executing<br>Agency |
| Countries cannot make optimal use of data, including accessing or using improved forecasts products from the Global Producing Centers throughout the hydromet value chain. | • Operati<br>onal   | High | Possible | Moder<br>ate | GHS, through SOFF, CREWS, EW4All and other initiatives, will seek to constantly improve the knowledge and know-how of its relevant employees, with the support of CIMH, the peer advisor, as well as future additional partners, such as the university of Guyana, NCEP, the university of the west indies and more. | GHS                 |

## **Budget by UNSDG Categories: Over all**

| <b>Budget Lines</b>                                       | Description | WMO (7%) *   | IDB (7%) *     | Total          |
|---|-------------|--------------|----------------|----------------|
| 1. Staff and other personnel                              |             | \$0.00       | \$100,000.00   | \$100,000.00   |
| 2. Supplies,<br>Commodities, Materials                    |             | \$0.00       | \$0.00         | \$0.00         |
| 3. Equipment, Vehicles, and Furniture, incl. Depreciation |             | \$0.00       | \$1,060,000.00 | \$1,060,000.00 |
| 4. Contractual services                                   |             | \$120,000.00 | \$415,000.00   | \$535,000.00   |
| 5. Travel   |             | \$0.00       | \$0.00         | \$0.00         |
| 6. Transfers and Grants to Counterparts                   |             | \$0.00       | \$0.00         | \$0.00         |
| 7. General Operating and other Direct Costs               |             | \$0.00       | \$110,000.00   | \$110,000.00   |
| <b>Project Costs Sub Total</b>                            |             | \$120,000.00 | \$1,685,000.00 | \$1,805,000.00 |
| 8. Indirect Support Costs                                 |             | \$8,400.00   | \$117,950.00   | \$126,350.00   |
| Total   |             | \$128,400.00 | \$1,802,950.00 | \$1,931,350.00 |

### Performance-based Tranches Breakdown

| Tranche   |              |                | Total          |
|-----------|--------------|----------------|----------------|
| Tranche 1 | IDB (60%)    | \$1,081,770.00 |                |
|           | WMO (33.33%) | \$42,795.72    | \$1,124,565.72 |
| Tranche 2 | IDB (40%)    | \$721,180.00   |                |
|           | WMO (33.33%) | \$42,795.72    | \$763,975.72   |
| Tranche 3 | IDB (0%)     | \$0.00         |                |
|           | WMO (33.34%) | \$42,808.56    | \$42,808.56    |
|           |              |                | \$1,931,350.00 |

## Results based budget

|              | 1 und management platform                                    |             |                   |
|--------------|--|-------------|-------------------|
| Outcome *    | Output *   | Agency *    | Budget<br>(USD) * |
| 1. GBON inst | itutional and human capacity developed                       | Sub Total   | \$635,000.00      |
|              | 1.1 National Consultations conducted                         | IDB (7%)    | \$105,000.00      |
|              | 1.2 NMHS institutional capacity developed                    | IDB (7%)    | \$115,000.00      |
|              | 1.3 NMHS human capacity developed                            | WMO<br>(7%) | \$120,000.00      |
|              | 1.3 NMHS human capacity developed                            | IDB (7%)    | \$295,000.00      |
| 2. GBON infr | astructure in place  | Sub Total   | \$1,060,000.00    |
|              | 2.2 Improved land-based stations in place.                   | IDB (7%)    | \$610,000.00      |
|              | 2.3 New upper-air stations in place.                         | IDB (7%)    | \$450,000.00      |
| 3. Sustained | compliance with GBON   | Sub Total   | \$110,000.00      |
|              | 3.1 GBON land-based stations commissioning period completed. | IDB (7%)    | \$110,000.00      |
| Total        |  |             | \$1,805,000.00    |

# **Programme Outcome Costs**

| Outcome     | Output        | Activity                                      | Implementing Agent                             | Tir                      | me Fra   | me       |
|-------------|---------------|---|--|--------------------------|----------|----------|
|             |               |   |  | 2026                     | 2027     | 2028     |
|             |               |   |  | 1                        | 1        | 1        |
| 1. GBON ins | stitutional a | nd human capacity deve                        | eloped   |                          |          |          |
|             | 1.1 Nation    | nal Consultations conduc                      | eted   |                          |          |          |
|             |               | National consultations                        | including with CSOs, and other relevant stakeh | olders conducted         |          |          |
|             |               |   | WMO  |                          | <b>V</b> | <b>V</b> |
|             |               |   | IDB  | <b></b>                  |          | <b>V</b> |
|             |               | Program advocacy on                           | legal framework                                |                          |          |          |
|             |               |   | WMO  |                          |          |          |
|             |               |   | IDB  | ✓                        |          |          |
|             |               | Program launch for key                        | y stakeholders                                 |                          |          |          |
|             |               |   | WMO  |                          |          |          |
|             |               |   | IDB  | <b></b>                  |          |          |
|             |               | Stakeholders meetings                         | 5  |                          |          |          |
|             |               |   | WMO  |                          |          |          |
|             |               |   | IDB  |                          |          | <b>V</b> |
|             |               | GESI campaign                                 |  |                          |          |          |
|             |               |   | WMO  |                          |          |          |
|             |               |   | IDB  |                          |          | <b>V</b> |
|             |               | CSOs and indigenous                           | groups workshops                               |                          |          |          |
|             |               |   | WMO  |                          |          |          |
|             |               |   | IDB  |                          | <b>V</b> | <b>V</b> |
|             | 1.2 NMHS      | S institutional capacity de                   | eveloped                                       |                          |          |          |
|             |               | Revision of the National an operational plan. | al Hydrometeorological Service of Guyana (GHS  | ) strategic plan and dev | elopme   | nt of    |
|             |               |   | WMO  |                          |          |          |
|             |               |   | IDB  |                          |          |          |
|             |               | Implementation of Qua                         | ality Management System                        |                          |          |          |
|             |               |   | WMO  |                          |          |          |
|             |               |   | IDB  |                          |          |          |

| Outcome     | Output    | Activity                         | Implementing Agent | Tir      | ne Frai  | me       |
|-------------|-----------|----------------------------------|--------------------|----------|----------|----------|
|             |           |                                  |                    | 2026     | 2027     | 2028     |
|             |           |                                  |                    | 1        | 1        | 1        |
|             |           |                                  | IDB                | <b>~</b> |          |          |
|             |           | Gender sensitive capacity bu     | ilding             |          |          |          |
|             |           |                                  | WMO                | <b>~</b> | <b>✓</b> | <b>V</b> |
|             |           |                                  | IDB                | <b>✓</b> | <b>✓</b> | <b>V</b> |
|             |           | Gender inclusion                 |                    |          |          |          |
|             |           |                                  | WMO                | <b>~</b> | <b>✓</b> | <b>V</b> |
|             |           |                                  | IDB                | <b>/</b> | <b>/</b> | <b>V</b> |
|             |           | Data Policy Alignment            |                    |          |          |          |
|             |           |                                  | WMO                | <b>/</b> | <b>~</b> | <b>V</b> |
|             |           |                                  | IDB                | <b>/</b> | <b>/</b> | <b>V</b> |
|             |           | GHS business model develop       | ment               |          |          |          |
|             |           |                                  | WMO                | <b>/</b> | <b>/</b> |          |
|             |           |                                  | IDB                | <b>/</b> | <b>~</b> |          |
|             | 1.3 NMHS  | human capacity developed         |                    |          |          |          |
|             |           | GHS Leadership training prog     |                    |          |          |          |
|             |           |                                  | IDB                | <b>✓</b> | <b>✓</b> | <b>/</b> |
|             |           | GHS technical staff training p   |                    |          |          |          |
|             |           |                                  | WMO                | ✓<br>_   | <b>✓</b> |          |
|             |           |                                  | IDB                | <b>✓</b> | <b>✓</b> |          |
|             |           | GHS technical staff training p   |                    |          |          |          |
|             |           |                                  | WMO                | <b>/</b> | <b>~</b> |          |
|             |           |                                  | IDB                | <b>✓</b> | <b>~</b> |          |
| 2. GBON inf |           |                                  |                    |          |          |          |
|             | 2.2 Impro | ved land-based stations in place | ce.                |          |          |          |
|             |           | AWS procurement                  | \MAAQ              | ✓        |          |          |
|             |           |                                  | WMO                | ✓        |          |          |
|             |           | Storage building                 | IDB                |          |          |          |
|             |           | Storage building                 | IDB                | ✓        |          |          |
|             |           | Vehicle procurement              | IDB                |          |          |          |
|             |           | vernole producement              | IDB                | <b>/</b> |          |          |
|             |           | Vendor technical visits          |                    |          |          |          |
|             |           | Torradi tooriiiloul visits       | WMO                | <b>V</b> | <b>~</b> | <b>V</b> |
|             |           |                                  | IDB                |          |          | <b>V</b> |
|             |           | Calibration system procureme     |                    |          |          |          |
|             |           |                                  | WMO                | <b>~</b> |          |          |
|             |           |                                  | IDB                | <b>✓</b> |          |          |
|             | 2.3 New u | ipper-air stations in place.     |                    |          |          |          |
|             |           | Procurement of Upper-Air fac     | cility             |          |          |          |
|             |           |                                  | WMO                |          | ✓        |          |
|             |           |                                  | IDB                |          | <b>~</b> |          |
|             |           | Hydrogen generator training      |                    |          |          |          |
|             |           |                                  | WMO                |          | <b>~</b> |          |
|             |           |                                  | IDB                |          | ✓        |          |
|             |           | SOP development                  |                    |          |          |          |
|             |           |                                  | WMO                |          | <b>~</b> |          |
|             |           |                                  | IDB                |          | <b>✓</b> |          |
|             |           |                                  |                    |          |          |          |

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Fund management platform

| Outcome     | Output     | Activity                  | Implementing Agent            | Ti   | me Fra   | me   |
|-------------|------------|---------------------------|-------------------------------|------|----------|------|
|             |            |                           |                               | 2026 | 2027     | 2028 |
|             |            |                           |                               | 1    | 1        | 1    |
|             |            | Procurement of surface    | level agreement               |      |          |      |
|             |            |                           | WMO                           |      | <b>V</b> |      |
|             |            |                           | IDB                           |      | <b>~</b> |      |
|             |            | Construction of Upper-    | air station enclosure         |      |          |      |
|             |            |                           | IDB                           |      | <b>V</b> |      |
| 3. Sustaine | d complian | ce with GBON              |                               |      |          |      |
|             | 3.1 GBON   | I land-based stations con | nmissioning period completed. |      |          |      |
|             |            | Operational costs for G   | BON surface stations          |      |          |      |
|             |            |                           | WMO                           | ✓    | <b>V</b> |      |
|             |            |                           | IDB                           |      | <b>V</b> |      |