

**Inputs provided by:** *Caribbean Institute for Meteorology and Hydrology*

**1. General description of mandates and objective(s) of your organization / associated network with institutional structure**

*(Please provide information on organizational mandates and objective(s) of the organization / associated network with organizational/institutional structure, as explicitly and/or implicitly relevant to addressing loss and damage associated with climate change impacts, including extreme weather events and slow onset events. Please feel free to expand the boxes as needed throughout the template. )*

The Caribbean Institute for Meteorology & Hydrology (CIMH) was established in 1967 and officially became an Organ of the Caribbean Meteorological Organization (CMO) in 1973 with the establishment of that organization. The overarching roles and responsibilities of the CMO are provided in Appendix 1. The CIMH's role is to execute the scientific and technical components of the CMO. The precise mandate of the CIMH is defined as:

*“to assist in improving and developing the Meteorological and Hydrological Services as well as providing the awareness of the benefits of Meteorology and Hydrology for the economic well-being of the CMO Member States. This is achieved through training, research, investigations and the provision of related specialized services and advice”.*

Member States of the CMO include Guyana, Trinidad and Tobago, Grenada, St. Vincent and the Grenadines, Barbados, Saint Lucia, Dominica, Antigua and Barbuda, Anguilla, British Virgin Islands, St. Kitts and Nevis, Montserrat, Jamaica, The Turks and Caicos Islands, The Cayman Islands and Belize. The activities of CMO in each Member State are governed by the Caribbean Meteorological Organization (CMO) Act.

The CIMH is recognized as an Institution of the Caribbean Community (CARICOM) and as such is covered by the Protocols, Privileges and Immunities accorded to such institutions. The CIMH has been a recognized affiliate of the University of the West Indies (UWI) since 1973. Under this arrangement, the CIMH is responsible for delivering and managing the Meteorology programme at UWI.

**2. Relevant operational framework(s)**

*(Please provide information on the relevant operational framework(s) (e.g. programming principles, resource allocation strategies, coordination mechanism for operations at different levels etc.) within your organization/associated network as relevant to implementing work related to risk management for loss and management associated with climate change impacts)*

The annual operations of the CMO are financed through subventions from Member States. A significant percentage of the subventions provided by Member States goes to meeting the operational needs of the CIMH. The operations of the CIMH are managed by its Board of Governors (drawn primarily from Member States) which meets annually to discuss and address matters related to the operations of the Institute. At the meeting, the progress made by the Institute over the prior 12-month period in its core programmes is presented and assessed; those core programmatic areas include training, research, development and support to Member States in the areas of weather, climate, water resources management, operational hydrology and instrument calibration and maintenance. While disaster risk reduction is not a core programme of the CIMH, it cuts across many of the core activities of the CIMH. As a result, the Institute expends a significant of its

resources supporting disaster risk reduction.

At the BOG meeting, the CIMH work plan for the following year is evaluated and reviewed. An important outcome of the BOG meeting is the approval of the operating budget for the Institute. This budget is brought to the Caribbean Meteorological Council (the Ministerial Organ of the Caribbean Meteorological Organization) for ratification. Between CIMH BOG meetings, the Principal, with the assistance of a General Purposes Committee (GPC) is responsible for decision making at the Institute.

The CIMH consists of 5 thematic sections: (i) the Meteorological Section; (ii) the Hydrology Section; (iii) the Applied Meteorology & Climatology Section; (iv) the Instruments Section; and (v) the Administration Section. However, in many ways the Institute functions along the lines of a matrix organization with staff frequent working collaboratively across Sections.

As noted earlier, the Institute supports disaster risk reduction in member states in several ways.

- The CIMH enjoys a close relationship with the Caribbean Disaster Emergency Management Agency (CDEMA). Through this relationship which has evolved significantly over the last 7 years, the CIMH provides technical information in the area of hydro-meteorology which supports CDEMA's scenario development and response activities for weather, climate and hydrological hazards. In 2013, CIMH expanded the services offered to the disaster management community in the areas of hydro-meteorological impacts forecasting and drought forecasting. In the latter case, this was done through the development of drought policies for countries taking part in a joint programme on drought between CIMH and CDEMA. The former case is being implemented through the Enhancing Resilience to Reduce Vulnerability in the Caribbean project (<http://63.175.159.26/erc/home/>). In recent years, CIMH at the request of CDEMA and its Participating States, has visited countries impacted by significant hydro-meteorological events to collect data essential for characterizing the magnitude of the event and the resulting impacts. If sufficient data is available return periods for the events are determined. CIMH has also worked with CDEMA and other partners to expand and support new and existing hydro-meteorological networks in across the Caribbean region. In addition, the CIMH and CDEMA attend each other's Board meetings and Technical Advisory Committees, and share annual work programmes to ensure synergy of planned actions.
- The CIMH has relationships with the Caribbean Catastrophe Risk Insurance Facility (CCRIF) and the World Bank related to the development of risk transfer mechanisms for extreme rainfall event. Through this interaction, CIMH has developed a regional flooding database that provides some level of support for the development of risk transfer models related to extreme rainfall events.
- The CIMH hosts the region's climate database which for some countries contains well in excess of 100 years of weather observations. This database supports the calculation of return periods which are critical for assessing risk across a range of specialized disciplines.
- In 2013, the CIMH entered the demonstration phase to become a WMO Regional Climate Centre (RCC) as defined under the Global Framework for Climate Services (GFCS). One of the primary sectors being targeted by the GFCS is Disaster Risk Reduction. As result, CIMH is obligated to providing climate services to support all required areas of disaster risk reduction including damage and loss.

### **3. Focus areas of risk management for loss and damage associated with climate change impacts**

*(Please provide information on the areas of work in relation to the items included in decision 3/CP.18 as listed in the introductory note as well as any additional focus areas, that your organization/associated network has been mandated to address. These could include relevant institutional policy statements/operational guidance documents etc. Please provide web links where further details can be found.)*

#### **4. Geographic coverage**

Member States of the CMO include Guyana, Trinidad and Tobago, Grenada, St. Vincent and the Grenadines, Barbados, Saint Lucia, Dominica, Antigua and Barbuda, Anguilla, British Virgin Islands, St. Kitts and Nevis, Montserrat, Jamaica, The Turks and Caicos Islands, The Cayman Islands and Belize. As a result, the effective domain covered is the entire Caribbean south of The Bahamas which is not a Member State of the CMO.

#### **5. Key stakeholders**

Key stakeholders of the CIMH in the area of disaster risk reduction including those related to damage and loss include:

- All Member States of the CMO as outlined in Section 1;
- Caribbean Disaster Emergency Management Agency (CDEMA);
- Caribbean Catastrophe Risk Insurance Facility (CCRIF);
- UNDP Barbados and Eastern Caribbean Office;
- UN Food and Agriculture Organization (UN FAO);
- World Bank (WB);
- Caribbean Development Bank (CDB);
- Caribbean Community Climate Change Centre (CCCCC);
- World Meteorological Organization (WMO);
- NASA through the Caribbean Satellite Disaster Pilot Project;
- Japan International Cooperation Agency;
- CIMA Foundation (Italy);
- Italian Civil Protection;
- International Federation of the Red Cross.

#### **6. Implementation modality / delivery mechanisms**

Staff at the CIMH has been engaged in some projects that support damage and loss. These activities are either funded through the core operating budget of the Institute or through grant funded projects.

- Support through core funding:
  - In this case, CIMH periodically uses funds from its operating budget to respond to requests from CMO Member States requesting support to assess damage following hydro-meteorological events. In many cases these support relates to assessing flooding and landslides following events to determine the nature of the damage, its cause, the return period of the event (data permitting) and solutions to mitigate future damage and loss in the affected communities. This activity is largely event driven and relatively low budget. Reports from such exercises are prepared for the impacted country and shared with CDEMA, donor institutions and grant institutions. In some cases, countries have used such reports

to acquire funds to address reduce vulnerability and improve early warning and alerting systems.

- Support through grant funding:
  - The CIMH on occasion receives funds from various donor agencies to implement projects. Initiatives such as the Caribbean Drought and Precipitation Monitoring Network (CDPMN), Real-Time Flood Forecasting for the Caribbean, Caribbean Agrometeorological Initiative (CAMI), Enhancing Resilience to Reduce Vulnerability in the Caribbean (ERC) indirectly provide support to the estimation of loss and damage through the provision of (i) climate information and (ii) climate impacts. The CIMH remains engaged with other developmental partners in the region and often contribute to steering committees and project implementation teams on climate and hydrology related projects.

Please provide information related to the technical, financial and institutional support mechanism

- The annual operations of the CMO are financed through subventions from Member States. A significant percentage of the subventions provided by Member States goes to meeting the operational needs of the CIMH.
- The CIMH provides specialized consulting services to both the public and private sector
- The CIMH consists of 5 thematic sections. The Meteorological Section, Hydrology Section and Applied Meteorology & Climatology Section are the academic sections which engage in the core training and research and development activities of the Institute; the Instruments Section supports the research and development activities of the institute. The Administrative Section along with the project support staff provide administrative support to the Institute.
- The CIMH is an organ of the CMO. (See Appendix 1 & 2)

Please provide information related to reporting, if any

## 7. Key activities / outputs to date

The links below provide access to some of the key current activities in which the CIMH has been engaged in addition to providing access to outputs and products that have been generated.

**CDPMN** - <http://63.175.159.26/~cdpmn/cdpmn.html>

**ERC** - <http://63.175.159.26/erc/home/>

**Caribbean RCC** - <http://63.175.159.29:4880/>

In addition to the above, the CIMH has also completed and supported a number of damage assessments and feasibility studies some of which support damage and loss estimation.

## 8. Any additional information and contact details

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