



## Caribbean Physical and Financial Resilience Building Program

### Context and Objectives

Caribbean countries are exposed to high levels of risk from meteorological and geophysical hazards, which have significant negative impacts on their economic and fiscal stability. These natural hazards are being exacerbated by the adverse impacts of climate change - intensifying hazard patterns and increasing stress on water availability, coastal investments and livelihoods. Within the Caribbean, direct damages due to natural disasters have averaged almost US\$1.6 billion per year over the last 20 years. The high costs of recovery and reconstruction have resulted in increased debt, unsustainable budgetary deficits and unreliable funding streams for many countries in the Caribbean.

Building code implementation has a crucial role to play in disaster risk reduction. The application of standards for safe siting and construction support a shift from managing disasters to reducing underlying risks. In developed economies, building code compliance is also a factor of growth and sustainability of the property insurance industry. With appropriate coordination, both regulations and property insurance reinforce one another to achieve risk reduction in the physical environment. In countries with effective property insurance systems, the feasibility of underwriting is always facilitated by the competence of the local regulatory authority in assuring both code compliance and reasonably predictable building performance under prescribed loads. Since neither lenders nor insurers have the capacity to manage plan review or site inspection independently, the presence of a competent regulatory system and an adequate building code makes this type of leverage for public safety possible.

### Main Activities

- **Completion of Building Regulatory Capacity Assessments:** this aims to accompany insurance market assessments in up to 5 CARICOM countries with the possibility to conduct more in the Caribbean region depending on feasibility and demand.
- **Development of an inventory of assets:** this entails the development of a dynamic system that can be used for asset identification, quantification and management to enhance financial and physical resilience.
- **Creation of a probabilistic risk assessment model and system:** this entails the estimation of potential future financial impacts on the built environment considering both physical and social vulnerabilities. This risk assessment system would serve not only for a one-time assessment but be dynamic in order to be re-run for sensitivity analyses and re-calibrated with new data and information over time in order to monitor the risk level but also monetarize resilience.
- **Model sensitivity analyses:** this entails the identification of priority construction recommendations, and to calculate the change in financial losses related to those changes in construction practice. Analyses of risk reduction alternatives support the identification of the most suitable and cost-efficient risk reduction investments.
- **Recommendations and support technical assistance:** these entail capacity building and training for increased resilience in new and existing building stock and construction industry in CARICOM countries.



- **Innovative financial products:** these are designed based on model sensitivity outcomes, in collaboration with WB Treasury and specialized companies in developing rebate-based resilience financial products
- **Scope of regional services:** these are developed for technical assistance on increased data availability and in building and property insurance regulation
- **Strategic support for the regional host organizations:** this includes partners such as the International Code Council, Insurance Institute for Business & Home Safety (IBHS) and the American Society for Testing and Materials (ASTM).

### **Results**

Several activities were undertaken since August 2020:

- i. A working group was created at the onset of the project, made up of CDEMA, CCRIF SPC, the OECS, the CARICOM Regional Organization for Standards and Quality, and the Caribbean Development Bank. This working group allows to maintain alignment among all stakeholders on the various activities under the project. It will therefore be an important touchpoint for coordinating activities throughout the project lifespan. The working group has so far convened in July, September, and December 2020, focusing on CCRIF financial resilience and disaster risk model development as well as on building regulations and standards by the OECS Commission. The resilient building regulation is already a high priority for regional stakeholders, and the working group provides a platform for increased knowledge-sharing, coordination, and capacity building to enhance national-level implementation of building regulation through the strengthening of regional networks. This working group can therefore already be regarded as a very positive output from this project, as it brings together some of the most influential regional organizations on physical and financial resilience in the Caribbean region.
- ii. One of the objectives of the project is to undertake Building Regulatory Capacity Assessments (BRCA) in the Caribbean. A comparative analysis between the BRCA methodology and a similar OECS tool was conducted to understand the approaches and advantages of each tool in order to develop a baseline understanding regarding building regulatory capacity for the region. It was determined with the working group not to conduct five BRCA in the region as initially anticipated, and instead conduct one in **the Bahamas** where there is explicit government demand for more support to understand the status building regulatory capacity.

### **Partnerships and Coordination**

The project is undertaken by the World Bank partners with technical advisory support from the regional partners including the Caribbean Disaster Emergency Management Agency (CDEMA), the CARICOM Regional Organization for Standards and Quality (CROSQ), the Caribbean Development Bank (CDB), and the Organization of Eastern Caribbean States (OECS).



**Country**

Activities will be implemented in up to 5 CARICOM countries

**Region**

Caribbean

**Caribbean Regional Resilience Building Facility component**

Expanding Financial Protection Against Disasters in the Caribbean Sovereign Countries

**Amount approved**

\$749,000

**Duration**

08/2020-02/2023