

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

**REGIONAL**

**HOME IS WHERE THE HURT IS: A REGIONAL FRAMEWORK FOR STEMMING DISASTER  
LOSSES IN CARIBBEAN HOUSING**

**(RG-T4873)**

**PROJECT DOCUMENT**

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**PROJECT SUMMARY**

Operation Type:	Technical Cooperation
Sector:	URBAN DEVELOPMENT AND HOUSING
Subsector:	HOUSING
TC Taxonomy:	Client Support
Project Number under the Operational Support Taxonomy:	N/A
Technical Responsible Unit:	CSD/HUD-Housing & Urban Development
Unit with Disbursement Responsibility (UDR):	CSD/HUD-Housing & Urban Development
Executing Agency:	Inter-American Development Bank

**PROJECT OBJECTIVE**

Develop a regional framework and capacity to strengthen the resilience of existing housing across Caribbean countries, addressing the shared vulnerability of the existing housing stock to hurricanes and other climatic events.

**FINANCIAL INFORMATION**

<b>Financing Type</b>	<b>Fund</b>	<b>Amount in US\$</b>
TCN - Nonreimbursable	W1A - OC SDP Window 1 - Regional Public Goods	878,000
	<b>Total IDB Financing</b>	<b>878,000</b>
	<b>Counterpart Financing</b>	<b>75,000</b>
	<b>Total Project Budget</b>	<b>953,000</b>

Donors: N/A

Disbursement Period: 36 months

Execution Period: 30 months

**ADDITIONAL FINANCIAL INFORMATION**

N/A

## I. JUSTIFICATION AND OBJECTIVE

- 1.1 **Diagnostic.** The vulnerable experience their vulnerability in a place. For most of the world's poor, that place is their home. In the Caribbean, the advanced age of the housing stock and the prevalent modality of constructing homes incrementally and with little, if any, regulatory oversight, mean that large sections of the population are at risk of severe loss from climatic events. In fact, the IMF estimated the economic cost of such disasters for the Caribbean to be more than \$22 billion (in constant 2009 dollars) between 1950 and 2016—with Hurricane Maria alone costing Dominica 225 percent of its GDP, and Hurricane Ivan affecting Grenada to the tune of 200 percent of its GDP. That material loss is compounded by the reality that it is experienced in the place that caters to many fundamental human needs—shelter, security, rest, nourishment and privacy. The scale of this existing and growing threat was further highlighted by Hurricane Melissa 2025, which caused an estimated US\$6-7 billion in damage, equating to 28 to 32 percent of Jamaica's GDP, and resulted in up to 90 percent of homes in the hardest-hit parish of Black River being damaged or destroyed.
- 1.2 Those most affected are often vulnerable, with the Caribbean Disaster Emergency Management Agency (CDEMA) finding that, between 2000 and 2020, approximately 80% of disaster-related displacements involved vulnerable groups, such as the elderly, women, adolescents, and children. A 2022 Housing Stock Assessment (Seek and Secure) in Barbados found that female-headed households were disproportionately represented at higher levels among those with dilapidated houses, properties in poor condition, properties with poor-quality roofs, those with accessibility challenges, deficiencies in the foundation, or located on steep slopes.
- 1.3 The magnitude of this failure is clear. During the recent Hurricane Melissa, the preliminary assessment indicated that nearly 90% of homes island-wide were affected to some degree, resulting in thousands of households losing their homes and livelihoods across multiple parishes. The repeated experience of large and fundamental housing losses from the predictable and recurring threat of natural disasters in the Caribbean points to a failure in the governance framework for identifying and systematically reducing risk exposure in the existing housing stock. That failure is attributable to several factors: (i) Lack of systematic data on the specific features of existing homes that make them vulnerable to natural disaster losses and the extent of those vulnerabilities across the housing stock of each country; (ii) Lack of documented, clear technical remedies that satisfy engineering performance standards for each type of resilience deficit; (iii) An inadequate pool of construction professionals and tradespersons knowledgeable in the implementation of resilience retrofits and sustainable construction; and (iv) cost inefficiencies associated with addressing these deficiencies on an island by island basis, especially given the small populations of each country.
- 1.4 A regional approach to addressing the governance gap associated with housing resilience in the Caribbean is more efficient than separate national interventions because of the common threat, similar built-environment vulnerabilities, and shared legal foundation. The Caribbean islands are located in the Atlantic hurricane region, making them highly vulnerable to hurricanes and associated

hazards like strong winds, heavy rainfall, storm surges, floods and landslides. Additionally, due to notable similarities in history, topography and economic structures, the built environment across the Caribbean has many commonalities. This is especially so with respect to the housing typologies where a sizeable majority of construction is owner-driven. Additionally, preferred construction materials, techniques and terminology are similar. Consequently, specifications for resilience retrofits are likely to be similar from one Caribbean state to the next, making a regional approach to the development of the manual more efficient and cost effective.

1.5 Most of the islands also have a shared legal foundation as former British colonies. British colonial influence significantly shaped land, planning, and housing laws in these states. Since policy and operational practice reforms need to be reconciled with the existing legal frameworks, a regional approach is advantageous because it will be able to build upon a wider body of jurisprudence and case history around development and building regulations and spatial planning.

1.6 A Caribbean-wide dataset with standardized metrics of resilience deficits in housing, regional and island-specific quantification of those metrics, and detailed and costed engineering solutions to each type of resilience deficit in each category of Caribbean housing typologies will strengthen the evidence base and dimensioning of investment needs in applications for adaptation finance and in national budgeting of local resources. Additionally, developing a shared pool of personnel with skills in needs-assessment, construction and repairs, as well as overall coordination will bolster much needed implementation capacity.

1.7 **Request.** In this context, the Governments of Jamaica, The Bahamas and Barbados have directly requested the IDB to support the development of a regional framework and capacity for improving the resilience of the existing housing stock in the Caribbean (see Annex 1). Additionally, policy dialogues led by the Caribbean Development Bank (CDB) are ongoing with additional Caribbean governments in the Organization of Eastern Caribbean States (OECS), who also see the value of a shared approach. Literature and datasets from these countries will be included in the preparation of this TC's outputs, but this TC will not conduct any work in those countries.

1.8 **Objective.** The general objective of this Technical Cooperation is to develop a regional framework and capacity to strengthen the resilience of existing housing across Caribbean countries, addressing the shared vulnerability of the existing housing stock to hurricanes and other climatic events. The specific objectives are to: (i) develop a more precise understanding of the nature and extent of housing resilience vulnerabilities in the beneficiary countries; (ii) build agreement at the regional level on the policy and technical specifications for minimizing the prevailing resilience vulnerabilities in the existing housing stock; and (iii) enhance regional and country-level capacity to implement resilience strengthening in existing homes and home expansion projects.

1.9 **Complementarity.** The Bank has a deep engagement in support of the Disaster Risk Management (DRM) agenda. Its commitment is driven by increasing evidence that natural disasters have been very costly to Caribbean economies and that resilience investments yield multiple levels of return compared to their cost, not

least through avoided losses. Regionally, the application of the Index of Governance and Public Policy in Disaster Risk Management (iGOPP) to six countries of the Caribbean Region (ATN/MD-15712-RG) identified areas of DRM that require strengthening. In the case of Barbados, complimentary engagement includes the Climate Resilient Infrastructure and ICZM Program (5846/OC-BA), a Debt for Climate transaction (BA-U0002), and the Contingent Credit Loan for Natural Disaster Emergencies (BA-O0004). ATN/OC-18433-BA supported the preparation of the Policy, Operational Manual and gender-sensitive Protocols for Resilience Retrofitting of Homes in Barbados, which will provide a valuable base for this operation. Alignment also occurs in The Bahamas Climate Resilient Coastal Management and Infrastructure Program (BH-L1043).

- 1.10 **Strategic Alignment.** This operation directly aligns with: (i) the IDB Group Institutional Strategy: Transforming for Scale and Impact (CA-631) core objective of Addressing Climate Change and the focus area of Sustainable, Resilient and Inclusive Infrastructure, by enhancing the region's capacity to strengthen the resilience of the housing stock. The project is aligned with the Climate Adaptation and Disaster Risk Management Pillar of the ONE Caribbean Regional Strategic Framework [GN-3201-2]. By strengthening the resilience of existing housing stock across Caribbean countries, the project directly supports ONE Caribbean's goal to increase access to climate-resilient infrastructure and service
- 1.11 The operation is also aligned with the Barbados Country Strategy, GN-3280-1: Pillar 3 – Build Climate Resilience and Promote Energy Transformation; The Bahamas Country Strategy, GN-2468-9(11/15): Strategic Area – Disaster Risk Management; and the Jamaica Country Strategy (GN-3138), Cross Cutting Theme: Climate Change, by improving the understanding of housing resilience vulnerabilities and expanding capacity to implement resilience strengthening measures in existing homes and home expansion projects in the beneficiary countries.
- 1.12 This TC is also aligned with the Ordinary Capital Strategic Development Program (OC SDP) (GN-2819-14), Window 1, Core Commitment 1 - Regional Public Goods (W1A), as it seeks to address the shared vulnerability of the existing housing stock to hurricanes and other climatic events through collective action among the beneficiary countries.

## II. COMPONENTS

- 2.1 **Component 1: Diagnostics (IDB: \$375,000 / Local counterpart: \$45,000).** The objective is to develop a more precise understanding of the nature and extent of housing resilience vulnerabilities in the beneficiary countries. The primary activity will be sample-based housing stock quality assessments in the targeted islands to obtain standardized measurements on the condition of roofs, foundations, windows, outer walls and doors as well as on access to the home, surrounding slopes and drainage, and basic infrastructure redundancies. These will be supported by additional activities of a review of pertinent literature, database creation and analysis using Artificial Intelligence (AI) tools to the above new data as well as historical damage and loss data to create a predictive function so that

updated estimates of resilience vulnerability can be routinely generated. A single firm-level consultancy will be procured to conduct the above activities leading to the production of the following key outputs: (i) Five Country-specific reports on resilience vulnerabilities in the existing housing stock; and (ii) a Regional Report on resilience vulnerabilities in the existing housing stock. The firm will work closely with the participating countries who will play critical roles in identifying and sharing all pertinent secondary data and in helping to formulate appropriate methods for data collection, including representative sampling.

2.2 **Component 2: Regulatory Framework Development (IDB: \$248,000 / Local counterpart: \$25,000).** The objective is to build agreement at the regional level on the policy and technical specifications for minimizing the prevailing resilience vulnerabilities in the existing housing stock. The main activities will include: (i) reviewing construction standards and practices in the region, regulatory oversight, and technical studies on resilient construction; (ii) analysis of field observations from Component 1, Caribbean housing typologies, home expansion projects, and lessons from housing retrofit programs; and (iii) technical analysis and development of designs for resilience to wind, flooding and other major threats such as landslides. A single firm-level consultancy will be procured to conduct the above activities leading to the production of the following key outputs: (i) a Regional Policy for housing resilience; and (ii) an Operational Manual for housing resilience. The firm will work closely with the participating countries through thematic Working Groups constituted of local practitioners and regulators with extensive knowledge of local building practices and incentives as well as deep knowledge of losses from past climatic events and natural disasters. Policy level representatives will meet regularly through the Project Steering Committee to iteratively arrive at consensus positions for the regional regulatory framework through horizontal, inter-country cooperation. Funding from this Component will facilitate their inter-island travel and associated costs.

2.3 **Component 3: Capacity Building Pilots (IDB: \$150,000 / Local counterpart: \$35,000).** The objective is to enhance regional and country-level capacity to implement resilience strengthening in existing homes and home expansion projects. The main activities will include: (i) construction, testing, marketing and launch of a Training App closely aligned to the Operational Manual; and (ii) development of multi-media training materials to make the content of the Retrofit Policy and Operational Manual more accessible to small and medium-sized builders, tradespersons and artisans. A single firm-level consultancy will be procured to conduct the above activities leading to the production of the following key outputs: (i) an App to facilitate individually calibrated learning; and (ii) local “Train the Trainer” practice-oriented Workshops (at least 10) in Jamaica, Barbados and The Bahamas for contractor associations, small contractors, construction tradespersons, and regulatory authorities to serve as pilots for a more substantive roll out of capacity building beyond the life and budget of this TC. The capacity building pilots will also include training of regulatory institutions and construction tradespersons in the 2023 CARICOM Regional Code of Practice for the Construction of Houses that was prepared under the coordination of the CARICOM

Regional Organisation for Standards and Quality (CROSQ) and Caribbean Disaster Emergency Management Agency (CDEMA). The firm will work closely with beneficiary countries, including communications and building practitioners, to ensure culturally relevant and effective messaging as well as training content and methods that are well adapted to the learning styles of the local target groups.

2.4 **Expected Results.** The expected result of this operation is the effective bolstering of the vulnerable housing stock's resilience and the mitigation of natural disaster risks across the Caribbean. This outcome will be done through the development of a new Retrofit Policy and Operational Manual, which provides empirically driven and contextually relevant construction specifications for strengthening existing homes. To ensure widespread adoption and standardized practice, the Policy will be formally tabled before CARICOM's Council for Trade and Economic Development (COTED). The operation will also build essential regional and local capacity, aligned with the new regulatory framework, through the deployment of an App and practice-oriented training. The combined effect of these activities and outputs will be a sustained, systemic improvement in the resilience of the Caribbean's residential infrastructure.

2.5 **Beneficiaries.** The direct beneficiaries of the TC are: (i) national and sub-national governing authorities in the target countries of Jamaica, Barbados and The Bahamas with responsibility for housing and residential construction regulation. The final and ultimate beneficiaries are low and middle-income households currently living in homes with significant resilience vulnerabilities.

### III. BUDGET

3.1 **Budget.** The total budget of the TC is US\$953,000 including US\$75,000 from in-kind<sup>1</sup> local counterpart funding. Barbados, Jamaica, and The Bahamas have each committed US\$25,000 of in-kind local counterpart in their respective letters of request. The IDB will finance US\$ 878,000 with funds from the W1A – OC SDP Window 1.

Budget in US\$			
Components	IDB	Local	Total
Component 1: Diagnostics	375,000	20,000	<b>395,000</b>
Component 2: Regulatory Framework Development	248,000	20,000	<b>268,000</b>
Component 3: Capacity Building Pilots	150,000	20,000	<b>170,000</b>
Direct operating expenses	90,000	15,000	<b>105,000</b>

<sup>1</sup> In-kind contributions will include staff time, facilities for meetings, and some logistical support for primary data collection. Values are estimated using typical logistical costs for events in the Caribbean and public sector wage scales matched against estimated hours of input.

External final evaluation	15,000	0	15,000
<b>Total</b>	<b>878,000</b>	<b>75,000</b>	<b>953,000</b>

#### IV. EXECUTION STRUCTURE

4.1 The TC will be executed by the Inter-American Development Bank (IDB), based on a request by the beneficiaries, in accordance with the Bank's Technical Cooperation Policy (GN-2470-2) and the Procedures for the Processing of Technical Cooperation Operations and Related Matters (OP-619-4), through the Housing and Urban Development Division of the Climate Change and Sustainable Development Department (CSD/HUD). In requesting IDB execution, beneficiary countries noted the regional nature of this initiative and the Bank's long and deep operational experience in the housing sector in the Caribbean.

4.2 A Project Steering Committee (PSC) will be established, comprising representatives from each participating country and the CDB and will be chaired by the IDB. The PSC will serve as the primary decision-making body for decisions related to project planning, implementation, monitoring, and evaluation. The PSC will meet at least quarterly to review progress, address challenges, and make strategic decisions to guide the project towards its objectives and to ensure that local activities align with the overall project goals and timelines. The PSC will also help the project navigate political economy factors, including securing any needed authorizations from Governmental departments for project activities. The participating countries, through their Governments, will be encouraged to have the final products tabled at a meeting of CARICOM's relevant committee (COTED), for its consideration and ultimate approval.. In addition to the PSC, thematic Working Groups (WGs) will be formed to address specific technical areas of the project. Briefings and Reports from the respective WGs will be tabled for discussion at regular and special meetings of the PSC, depending on the stage of project implementation. Regular communication and collaboration among the PSC and WGs will be maintained through virtual meetings, shared project management tools, and periodic in-person meetings.

4.3 TC execution will also include close collaboration with several strategic partners, including the CDB, the Organization of Eastern Caribbean States, the Green Climate Fund, ECLAC, CDEMA and UN-HABITAT to assemble collective intelligence about the specific vulnerabilities in the participating countries housing stocks.

4.4 **Procurement.** All procurement to be executed under this Technical Cooperation have been included in the Procurement Plan (Annex IV) and will be hired in compliance with the applicable Bank policies and regulations as follows: (a) Hiring of individual consultants, as established in the regulation on Complementary Workforce (AM-650) and (b) Contracting of services provided by consulting firms in accordance with the Corporate procurement Policy (GN-2303-33) and its Guidelines.

4.5 **Execution and Disbursement Period.** The execution period for this TC is 30 months and the disbursement period is 36 months.

4.6 **Financial Management.** Under Bank execution, financial management will follow IDB policies and internal controls. Expenditures will be recorded in the Bank's systems in the currency of the operation; financial information will be reported through standard IDB mechanisms, including budget monitoring and eligible expense validation. Given the execution modality and size of the TC, separate external financial audit requirements are not envisaged unless otherwise determined during implementation; if required, frequency and scope will be specified and financed from the TC.

4.7 **Monitoring, Reporting, and Supervision.** The Housing and Urban Development Division (CSD/HUD), with support from SPD/SDV, CCB/CBA, CCB/CJA and CCB/CBH, will supervise implementation. Monitoring will rely on the Results Matrix and the Technical Cooperation Monitoring System (TCM), with periodic progress updates and a completion report documenting outputs and progress toward outcomes. Supervision costs are embedded in the TC administration budget, and will be supplemented by transactional budget allocated to Sector Specialist team members which will be reviewed periodically for adequacy. Reporting frequency will follow IDB standards for Bank-executed TCs.

4.8 **RPG External Final Evaluation:** As part of the requirements established by the Regional Public Goods (RPG) Initiative, resources (US\$15,000) will be allocated for the project evaluation to measure the achievement of objectives and indicators, and to systematize the lessons learned from the TCs. The final evaluation must be carried out based on the terms of reference previously agreed upon with the Bank and submitted no later than 90 days after the last disbursement of Bank financing.

## V. POTENTIAL RISKS

5.1 This project faces the risk of non-standardized approaches to primary data collection affecting the quality of the TC outputs. This is mitigated by the choice of a single firm to collect and analyze housing stock condition data in all participating countries. There is also the risk of a disconnect between those responsible for data collection, regulatory framework development, and capacity building, leading to delays, quality incongruity, and possibly cost overruns associated with the need to repeat some activities. This is mitigated by a deliberate overlap in the contracting terms of each of these three assignments by several months to allow for a smooth transition between components, including adequate consideration of each team's/firm's perspective and findings.

5.2 **Intellectual Property.** Any knowledge products generated within the framework of this technical cooperation will be the property of the Bank and may be made available to the public under a creative commons license. However, upon request of the beneficiary, the intellectual property of said products may also be licensed and/or transferred to the beneficiary through specific agreements, in accordance with Procedure for the Publication of Knowledge Products (AM-331).

## **VI. EXCEPTIONS TO BANK POLICIES**

6.1 There are no exceptions to any Bank policy.

## **VII. ENVIRONMENTAL AND SOCIAL ASPECTS**

7.1 This Technical Cooperation is not intended to finance pre-feasibility or feasibility studies of specific investment projects or environmental and social studies associated with them; therefore, this TC does not have applicable requirements of the Bank's Environmental and Social Policy Framework (ESPF).

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### **REQUIRED ANNEXES:**

- Annex I: Request from Client
- Annex II: Results Matrix
- Annex III: Terms of Reference
- Annex IV: Procurement Plan