



**GFDRR**  
Global Facility for Disaster Reduction and Recovery

# ACP-EU Natural Disaster Risk Reduction Program

An initiative of the African, Caribbean and Pacific Group, funded by the European Union and managed by GFDRR

## ACP-EU NDRR Program

## Regional Report for the Caribbean

*July 2015*

# ACP-EU NDRR Program in the Caribbean

As of July 2015, in the Caribbean region, the ACP-EU NDRR Program has a portfolio of 19 projects, totaling USD 9.6 million. Of these projects, four have been completed, and fifteen are ongoing. At the moment there are no projects in the pipeline. Please refer to the list of projects in Annex 1.

Operational Portfolio – Caribbean (as of July 2015)				
	Window 1	Window 2	Window 3	Total
Completed	1	1	2	4
Ongoing	3	11	1	15
Pipeline	0	0	0	0
<b>Total</b>	<b>4</b>	<b>12</b>	<b>3</b>	<b>19</b>

*The Caribbean projects portfolio includes:*

- Mainstreaming DRM into sectoral planning (Haiti, Dominican Republic);
- Data generation, risk information and assessment (at the national and regional levels);
- Preparation of DRM investments (Belize, Dominica, Saint Lucia);
- DRM communication and advocacy (Guyana);
- Technical capacity building (regional projects, including two with UNDP);
- Technical assistance in disaster risk financing (Belize, Jamaica, Grenada and Saint Lucia);
- Post-disaster assessments (Saint Lucia, Saint Vincent and the Grenadines).

Activities at the regional and country levels are closely coordinated with the EU Delegation.

## Window 1: Regional Level

**Caribbean** The **Caribbean Risk Information Program** strengthened the quality of national-level data on hazards and risks for Belize, Grenada, Dominica, St. Lucia, and St. Vincent and the Grenadines. The project developed the Caribbean Handbook for Risk Information Management (CHaRIM<sup>1</sup>) that aims at supporting the generation and application of landslides and flood hazard and risk information to inform projects and program of planning and infrastructure sectors. Officials from Caribbean countries have been trained on risk fundamentals, hazard mapping and multi-hazard risk assessment. The project is currently developing the use case book, which illustrates the steps required to use the hazard and risk information in so-called use cases (example) for planning of infrastructure, planning of risk reduction measures, emergency preparedness and emergency response.

The **Management of Slope Stability in Communities (MoSSaiC) Caribbean Community of Practitioners Program** has finalized the development of the MoSSaiC Community of Practitioners online learning platform. The WB team is supervising and providing guidance on the enhancement and development of a software for calculating and modelling landslide risk. Twenty-four course participants are in the process of being identified in the six prioritized countries (Belize, Dominica, Grenada, Jamaica, Saint Lucia and Saint Vincent and the Grenadines). The countries were identified based upon client demand and need as well as ongoing DRM operations to

<sup>1</sup> <http://www.charim.net/>

which MoSSaiC activities could be linked. The first residential training course of MoSSaiC (in Saint Lucia) is scheduled for Fall 2015.

The **Strengthening Public Investment in DRR and CCA in the Eastern Caribbean Project**, implemented by UNDP, supports Eastern Caribbean countries in systematically accounting for disaster loss by developing probabilistic estimations of future risk. This information is used to strengthen public investment in DRR. The grant agreement with UNDP became effective in October 2014. A first project board meeting was organized by UNDP in February 2015, with representatives of the government of Saint Lucia and Saint Vincent and the Grenadines, UN-ECLAC, UNISDR, and World Bank. Currently, the UNDP/UNISDR and the World Bank teams are in the process of discussing the technical specifications of the risk profiles.

## Window 2: Country Level

The ACP-EU NDRR Program activities in the Caribbean focus on the importance of connecting relevant institutions and keys national and regional officials to further progress in the national and regional DRR agenda.

*Belize* The Road Network Exposure database developed under the program **Hazard and Risk Assessment Framework for Belize: Prioritization of an Investment Plan** was handed over to the relevant line agencies in September 2014, which will manage and update the data. The project team also discussed best practices with the government to incorporate the database into the National Spatial Data Infrastructure in Belize (NSDI). The team also conducted a series of training workshops in connection with the Roads and Public Buildings database, which was installed at Ministry of Works and Transports at Ministry of Natural Resources and Agriculture. It will be turned over to the Ministry of Finance and Economic Development in later 2015. The project has also been assisting the Land Information Center in data collection, and in adopting a mobile data collection platform based on the Open Data Toolkit platform. The final project workshop is scheduled for the end of 2015.

*Dominica* A risk data management platform, the Dominode,<sup>2</sup> was developed with the government of Dominica's Division for Physical Planning, Lands and Survey, and the Office of Disaster Management under the **Spatial Data Management and Identification of Most Vulnerable Schools and Shelters Project**. The platform hosts 45 data layers and is set to host additional data gathered under other projects and initiatives. Having this platform in place is the first step in mitigating continued data loss and is now serving the identification of the most vulnerable schools and shelters in Dominica. Over the last year, the project has organized several workshops for government officials on shelter standards and shelter assessment. A project final workshop will be carried out in August 2015 in order to present an evaluation of the shelter portfolio, and discuss the prioritization of investments.

*Dominican Republic* An analysis on the fiscal and economic impact of natural disasters in the **Dominican Republic** was conducted jointly with the Ministry of Economy, Planning and Development under the **Mainstreaming DRM and CCA in Public Investment, Territorial Planning and Public Finances Project**. The study showed that annual average losses associated with earthquakes and cyclones add up to \$670 million,

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<sup>2</sup> Dominica Open Data Portal [www.dominode.net](http://www.dominode.net).

equivalent to 1.1 percent of GDP in 2013. The project team is exploring options for disseminating the results of the study to set the basis for developing a disaster risk financing strategy. The project also designed and presented a territorial planning information system to the government and provided advisory services to the Vice-Ministry of the Presidency in the drafting process of the new DRM law.

The **Identifying Risk to Protect Schools in the Dominican Republic project**, implemented by Plan, Oxfam and Habitat for Humanity, is currently focusing on strengthening risk assessment of public schools using an integrated risk assessment tool (school safety index), to consider both risks to the schools' physical infrastructure inherent in the construction of schools facility and hazards in the surrounding environment. The project, which was recently launched, aims at scaling up an existing pilot project (under DIPECHO program), and it will strengthen government and academic sector capacities in emergency information management.

*Guyana* The **Strengthening Guyana's Coastal Lands Information Systems and Adaptation Awareness Project** focused on implementing a communications strategy for the Conservancy Adaptation Project (CAP) and strengthening the country's information systems on coastal lands. The project also improved coordination among stakeholders within government and the donor community towards developing a comprehensive flood control strategy. Under an ACP-EU NDRR grant, the Ministry of Agriculture and the World Bank held the CAP Workshop in March 2014 focusing on CAP results for the 2008-2013 period and future investments under the 2013-2020 strategic plan. These included enhancing government knowledge and capacity to manage the East Demerara Water Conservancy and the coastal drainage systems, as well as a \$123 million package of investments critical for flood management. The grant also supported publication of the project findings, *Managing Flood Risk in Guyana*, and the production of a video animation. The project was completed on June 30, 2014.

*Haiti* The **Haiti Disaster Risk Management Mainstreaming and Capacity Building Program** supports the government in advocating and integrating DRM into its policies and investments. A communication strategy on safe construction was jointly developed with the Ministry of Public Works to promote linkages between the ongoing National Building Code process and sector specifications for health and education. New guidelines for disaster resilient health infrastructure were completed, approved and attached as an annex to the Haitian Building Code. Moreover, an operational manual for the relocation of displaced people through a Rental Cash Grant Approach was developed with the Coordination Unit for Construction of Housing and Public Buildings.

*Jamaica* The **Strengthening Disaster Risk Management project** was originally presented in June 2013, focusing on transport infrastructure disaster risk analysis. After discussions with the government of Jamaica, the scope of this project was modified and broadened to further strengthen Jamaica's DRM framework, including mainstreaming of DRM in policy development, improving the application of disaster risk analysis to critical road transport infrastructure, and strengthening institutional capacity for disaster response.

*St. Lucia* The government of **St. Lucia** has identified the factors leading to increased vulnerability in the housing sector as a priority for the country's DRM and climate resilience agenda. To this end, the **Hazard and Disaster Risk Assessment Framework Project** launched in July 2015 an island-wide structural vulnerability survey with a

sample size of 500 households to generate physical vulnerability indicators of housing structures. The survey findings will help determine eligible structural home improvement interventions for resilience building under the World Bank-financed Disaster Vulnerability Reduction Project, currently under implementation.

Moreover, flood hazard assessment for watershed management was successfully launched with the participation of a representative from the Saint Lucia Water Resource Management Agency (WRMA) in a 4-week training at the University of Twente ITC in The Netherlands from February to March 2015. During the training, the flood hazard assessment that has been carried out on a national level was refined and discussions on appropriate methodologies for watershed level analyses were initiated. A draft methodology and training plan for a 2-week hands-on capacity building activity of the entire WRMA staff and representatives from the Ministries of Infrastructure and Physical Development has been developed by the University. In consultation with the Government of Saint Lucia, the Bois D'Orange watershed has been identified as case study for the flood hazard assessment.

*Belize,  
Grenada,  
Jamaica  
and St.  
Lucia*

The **Caribbean Disaster Risk Financing Technical Assistance Program** is being undertaken jointly with Ministries of Finance in **Belize, Grenada, Jamaica and St. Lucia**, and is supporting the understanding and quantification of sovereign contingent liabilities to natural disasters and the development of an integrated disaster risk financing framework for the countries, in order to support them in improving their financial resilience. The four individual projects are being implemented in collaboration with the Caribbean Catastrophe Risk Insurance Facility (CCRIF) Technical Assistance Program, and will also benefit from experience gained in current risk financing initiatives in the Pacific and Indian Ocean Islands (financed by the ACP-EU NDRR Program). The projects started in May 2015, and project teams are currently performing a desk review of existing disaster risk financing data.

### **Window 3: Post-disaster, Capacity Building & Recovery**

The **Strengthening Capacity in Post-Disaster Needs Assessment in the Caribbean Project**, implemented by UNDP, became effective in March 2014. In July, UNDP and the Caribbean Disaster Emergency Management Agency (CDEMA) launched a four-day regional workshop on PDNAs. The workshop built on the experience of the PDNA after the December 2013 floods in St. Lucia and St. Vincent and the Grenadines.

The program also funded two **post-disaster damage and loss assessments** in St. Lucia and St. Vincent and the Grenadines in response to floods and landslides caused by torrential rain on December 24-26, 2013.

The [Joint Rapid Damage and Needs Assessment \(JRDNA\)](#) was conducted in January 2014 in collaboration with the authorities of **Saint Lucia**. The assessment quantified damage to the country's infrastructure and social and productive sectors. It also identified and prioritized emergency recovery and reconstruction investments based on urgency, criticality and economies of scale.

An initial assessment of the total damage and loss was \$99.88 million (EC\$267.76 million), equivalent to 8.3 percent of Saint Lucia's gross domestic product. Transport infrastructure sustained 72 percent of damage, followed by agricultural infrastructure at 13 percent, water and sanitation at six percent and housing at four percent. Out of a total population of 180,870, six people were confirmed dead and over 550 were

displaced. Nearly 20,000 were directly impacted by the event. The JRDNA findings were used to leverage emergency response resources, including \$17 million from the World Bank's IDA Crisis Window, approved in June 2014, to finance reconstruction. The government also used the findings to leverage additional bilateral funding for its emergency recovery needs. The JRDNA was presented to the government in February 2014 and published in June. To complement the JRDNA, an assessment of the hydro-meteorological and geotechnical characteristics of the disaster was conducted and a series of recommendations for short and long-term actions to improve resilience of the island to future adverse natural events was presented to the government.

In **Saint Vincent**, the government declared a National Level Two disaster, and shortly thereafter requested World Bank assistance to conduct a rapid damage and loss assessment and support for recovery and reconstruction. The World Bank team supported technical ministries such as the Central Water and Sewage Authority, the Ministry of Transport and Works and others in assessing and quantifying damages to critical infrastructure. According to the summary of the data reported from each affected sector, the flood event of December 24-25, 2013 resulted in total damages and losses of \$108.4 million (EC\$291.4 million), equivalent to 15 percent of the country's GDP. Most of the flood damage was sustained in the infrastructure sector (97 percent) followed by the social (three percent) and productive sectors (under one percent). The [assessment findings](#) were presented to the government of Saint Vincent and Grenadines in January 2014 and were used to leverage bilateral funding to support emergency response, including \$19 million from the World Bank's IDA Crisis Response Window to support the country's reconstruction efforts.

The Saint Lucia and the Saint Vincent and the Grenadines assessments, process, findings and lessons learned were discussed and shared among national and regional technical experts during the Caribbean Open Disaster Risk Information Webinar, organized by the World Bank in April 2014 ([https://www.youtube.com/watch?v=bsh5\\_gduilw](https://www.youtube.com/watch?v=bsh5_gduilw)). During the preparation of both assessments, World Bank teams consulted the EU Delegation in Barbados and with other development partners, such as UNDP, CDB and DfID. Linkages with these regional partners were created to ensure that knowledge and processes would be shared and that some capacity would be built throughout the process. More specifically, the UNDP-led PDNAs were informed by the findings of both assessments.

## Annex 2 – Projects Portfolio and Summary of Commitments (July 2015)

#	Country(s)	Title	Window of action	Implementation /local partners	Amount funded (USD)	Status
1.	CDEMA countries	CDEMA: 6 <sup>th</sup> Conference on Comprehensive Disaster Management	Window 1	WB and GFDRR	102,000	Completed
2.	Region (Belize, Dominica, Grenada, St. Lucia, SVG)	Risk Information Programme to support the Integration of DRM Strategies in Critical Sectors	Window 1	WB	1,340,000	Ongoing
3.	Region (Antigua & Barbuda, Barbados, Dominica, Grenada, St. Kitts & Nevis, St. Lucia, SVG)	Strengthening Public Investment in Disaster Risk Reduction and Climate Change Adaptation in the Eastern Caribbean	Window 1	WB-UNDP	707,600	Ongoing
4.	Region (Belize, Dominica, Grenada, Jamaica, St. Lucia, SVG)	MoSSaIC Community of Practitioners	Window 1	WB	550,000	Ongoing
5.	Belize	Hazard and Risk Assessment Framework – Prioritization of an Investment Plan	Window 2	WB	1,150,000	Ongoing
6.	Belize	Belize Disaster Risk Financing Technical Assistance	Window 2	WB	233,000	Ongoing
7.	Dominica	Spatial Data Management and Identification of the Most Vulnerable Schools and Shelters	Window 2	WB	722,000	Ongoing
8.	Dominican Republic	Mainstreaming DRM and CC in Public Investment, Territorial Planning and Public Finance in the Dominican Republic	Window 2	WB	600,000	Ongoing
9.	Dominican Republic	Identifying Risk to Protect Schools in the Dominican Republic	Window 2	WB & Plan DR, Oxfam DR & Habitat for Humanity DR	638,574	Ongoing
10.	Grenada	Grenada Disaster Risk Financing Technical Assistance	Window 2	WB	233,000	Ongoing
11.	Guyana	Strengthening Coastal Lands Information Systems and Adaptation Awareness	Window 2	WB	250,000	Completed
12.	Haiti	Disaster Risk Management Mainstreaming and Capacity Building Program	Window 2	WB-UNDP	1,000,000	Ongoing
13.	Jamaica	Strengthening Disaster Risk Management in Jamaica	Window 2	WB	860,000	Ongoing
14.	Jamaica	Jamaica Disaster Risk Financing Technical Assistance	Window 2	WB	233,000	Ongoing
15.	St. Lucia	Hazard and Disaster Risk Assessment Framework – Preparation of Vulnerability Reduction Project	Window 2	WB	300,000	Ongoing
16.	St. Lucia	St. Lucia Disaster Risk Financing Technical Assistance	Window 2	WB	233,000	Ongoing
17.	St. Lucia	Damage and Loss Assessment of December 2013 Floods	Window 3	WB	50,000	Completed
18.	St. Vincent & the Grenadines	St. Vincent and the Grenadines Floods and Landslides 2013	Window 3	WB	50,000	Completed
19.	Region (Antigua & Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, St. Kitts & Nevis, St. Lucia, SVG)	Strengthening Capacity in Post Disaster Needs Assessment in the Caribbean	Window 3	WB-UNDP	372,750	Ongoing