



# ACP-EU Natural Disaster Risk Reduction Program

2017-2018 Activity Report

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



Cover: First daylight in the rainforest, Rwanda / Source iStock

African Sunset / Source iStock

# ACP-EU Natural Disaster Risk Reduction Program

## 2017–18 Activity Report

**This report summarizes activities and achievements under the ACP-EU Natural Disaster Risk Reduction (NDRR) Program from July 1, 2017 to June 30, 2018.**

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Notes: The financial contributions and expenditures reported are reflected up to June 30, 2018; all dollar amounts are in US dollars (\$) unless otherwise indicated.

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# Acronyms and Abbreviations

<b>A</b>	<b>ACP</b> <b>ADRF</b> <b>AUC</b>	Africa, Caribbean and Pacific Africa Disaster Risk Financing Initiative African Union Commission
<b>C</b>	<b>Cat DDO</b> <b>CCA</b> <b>CDEMA</b> <b>CREWS</b>	Catastrophe Deferred Drawdown Option Climate Change Adaptation Caribbean Disaster Emergency Management Agency Climate Risk and Early Warning Systems
<b>D</b>	<b>DINA</b> <b>DIPECHO</b> <b>DRF</b> <b>DRFI</b> <b>DRM</b> <b>DRR</b>	Drought Impact and Needs Assessment Disaster Preparedness ECHO Program Disaster Risk Finance Disaster Risk Financing and Insurance Disaster Risk Management Disaster Risk Reduction
<b>E</b>	<b>ECCAS</b> <b>ECOWAS</b> <b>EU</b> <b>EWS</b>	Economic Community of Central African States Economic Community of West African States European Union Early Warning System
<b>F</b>	<b>FY18</b>	Fiscal Year 18; 1 July 2017 – 30 June 2018
<b>G</b>	<b>GDP</b> <b>GFDRR</b> <b>GIS</b>	Gross Domestic Product Global Facility for Disaster Reduction and Recovery Geographical Information System
<b>I</b>	<b>IDLM</b> <b>IFRC</b> <b>IGAD</b> <b>IOM</b>	Integrated Disaster and Land Management International Federation of Red Cross and Red Crescent Societies Intergovernmental Authority on Development International Organization for Migration
<b>N</b>	<b>NDRR</b> <b>NGO</b>	Natural Disaster Risk Reduction (ACP-EU NDRR Program) Non-Governmental Organisation
<b>P</b>	<b>PICs</b> <b>PDNA</b>	Pacific Island Countries Post Disaster Needs Assessment
<b>R</b>	<b>RECs</b>	Regional Economic Communities
<b>S</b>	<b>SADC</b> <b>SISRI</b>	Southern African Development Community Small Island States Resilience Initiative
<b>U</b>	<b>UAV</b> <b>UN</b> <b>UNDP</b> <b>UNICEF</b> <b>UNISDR</b> <b>UR</b>	Unmanned Aerial Vehicle United Nations United Nations Development Programme United Nations Children Fund United Nations Office for Disaster Risk Reduction Understanding Risk
<b>W</b>	<b>WB</b> <b>WBG</b>	World Bank World Bank Group

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Salt water lagoon at Uepi in Solomon Islands / Source iStock

# Foreword

The ACP-EU Natural Disaster Risk Reduction (NDRR) Program is an initiative of the African Caribbean Pacific (ACP) Group of States, in partnership with the European Union (EU), and the Global Facility for Disaster Reduction and Recovery (GFDRR). Since 2011, the Program has worked to build climate and disaster resilience in ACP countries, where the impacts of climate change are increasingly visible. During this time, development stakeholders, governments, and civil society organizations have become increasingly aware of the importance of partnerships in meeting these challenges.

The need to integrate disaster risk management into the global development agenda has never been greater. In the past year, the disaster events that hit countries around the world – such as the devastating hurricanes Maria and Irma that made landfall in the Caribbean, Tropical Cyclone Gita that hit Tonga, mudslides in Sierra Leone – wiped out significant portions of countries' GDPs and particularly affected the poor and the most vulnerable groups.

This Activity Report highlights the efforts of the ACP-EU NDRR Program in FY18 to prevent, mitigate and prepare for natural hazards at the regional, sub-regional, national and local levels in ACP countries. Whether natural hazards turn into disasters depends only in part on the natural event itself. In most of the affected area, the risks posed by hazards is influenced by other factors such as the exposure and vulnerability of a country's infrastructure and economy, the level of risk prevention, its preparedness and its coping capacity. In addition, a country's adaptive capacity to a changing climate will influence the emergence of future risks.

Continued high demand from stakeholders in FY18 resulted in 40 active projects in 28 countries, bringing the program portfolio to 100+ projects supporting more than 50 countries in total. An increased number of projects supported urban resilience in Africa, enhanced disaster risk finance in the Caribbean, and hazard risk assessments in the Pacific, meeting specific needs and demands in those regions.

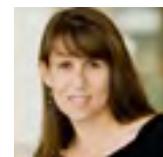
These efforts have a real impact on the ground. An independently conducted mid-term evaluation of the operations and results of the ACP-EU NDRR Program concluded that completed projects achieved moderate to high levels of success, and have successfully strengthened Disaster Risk Reduction at different levels of government. This Activity Report highlights how the ACP-EU NDRR Program has contributed to leveraging significant additional investments in Disaster Risk Management. All of these results together contribute to shaping a more resilient future to those most in need in ACP countries.



*Ambassador Léonard-Emile Ognimba,  
Assistant Secretary General, African,  
Caribbean and Pacific Group of States*



*Felice Zaccheo, Head of Unit for  
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Facility for Disaster Reduction and  
Recovery*



Lagoon at Cranbrook flower forest, Jamaica / Source iStock

# Executive Summary

This report highlights the results achieved by the African Caribbean Pacific – European Union (ACP-EU) Natural Disaster Risk Reduction (NDRR) Program during fiscal year 2018 (FY18; 1 July 2017 – 30 June 2018). The report also presents how the ACP-EU NDRR contributes to leveraging significant additional investments in Disaster Risk Management (DRM).

In FY18 the ACP-EU NDRR Program continued to integrate disaster risk management into the development agenda. High demand from stakeholders resulted in 40 active projects in 28 countries in FY18, bringing the total program portfolio to 100+ projects supporting over 50 countries.

In **Africa**, twelve country-level projects (Window 2) were active in FY18. In response to country demands, the Program supported an increasing number of urban resilience projects. Support was also provided to projects integrating Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) into development planning, and to projects assessing disaster risk, and improving climate services. The Program also supported two Post-Disaster Needs Assessments (PDNA) (Window 3), one in Somalia and one in Sierra Leone.

In the **Caribbean**, eleven country-level projects (Window 2) were active in FY18. These activities showed the ongoing shift in focus from post-disaster interventions to pro-active DRM. Projects accelerated work on disaster risk financing and helped countries to identify the risks natural hazards pose to key infrastructures, and investments which can address these risks. Following Hurricanes Irma and Maria, the ACP-EU NDRR Program supported two post-disaster assessments, one in Antigua and Barbuda and one in Dominica, and supported resilient reconstruction in Dominica (Window 3).

In the **Pacific**, three regional projects (Window 1) and six country-level projects (Window 2) were active in FY18. These projects assisted countries to assess climate and disaster risks, and supported institutional strengthening for DRM. The ACP-EU NDRR Program supported one post-disaster assessment in Tonga (Window 3).

Two **All-ACP** projects (Window 3) were supported, to enable the third meeting of the Small Island States Resilience Initiative in May 2018 and to roll out a Disaster Recovery Framework Guide in all ACP countries.

Projects implemented by the ACP-EU NDRR Program have resulted in significant additional investments in DRM. Since 2011, the Program has leveraged nearly \$2 billion through co-financing, through enabling in leveraging, and through informing in leveraging. In FY18, four new cases of enabling in leveraging, and eight new cases of informing in leveraging were identified.

The achievements of the Program in FY18 were underpinned by the partnership between the ACP Group of States, the EU, and GFDRR. Going forward, these partners will continue to work together through the ACP-EU NDRR Program to provide technical assistance, build in-country capacity, and leverage investments to upscale disaster risk management.

# About the Program

## OBJECTIVE

The ACP-EU NDRR Program is grounded in the conviction that disaster risk reduction contributes to sustainable development and poverty eradication. It is aimed at preventing and enhancing preparedness for natural disasters, and mitigating their impacts, at regional, sub-regional, national and local levels in ACP countries. The program has four priority areas: mainstreaming disaster risk reduction (DRR); risk identification and assessment; early warning systems and communication on DRR; and risk transfer and integration of DRR into post-disaster recovery.

## EXPECTED RESULTS & TARGETS

The main expected results of the ACP-EU NDRR Program are:

Improved resilience of ACP countries to the impact of natural disasters;

Better preparedness of the population in disaster-prone areas;

Reduction of the cost of response in the event of natural disasters.

The achievement of these results is measured against the following targets, which are to be reached by July 2020.

Target	Achieved as of 30 June 2018
30 ACP countries have integrated DRR and Climate Change Adaptation (CCA) in the national planning process	20
20 countries have developed risk tools to guide vulnerability reduction and emergency preparedness	TARGET SURPASSED 30
3 river basins have enhanced their flood risk management capacity	1
6 sub-regional lead institutions have functioning DRR capacity	TARGET REACHED 6
20 countries have access to operational early warning systems (EWS) for natural disasters	9
15 countries have developed risk financing and insurance strategies	14
20 countries have developed national capacity for Post Disaster Needs Assessments (PDNAs)	17
15 countries have undertaken multi-stakeholder PDNAs and recovery planning	14
5 countries have effectively implemented DRR in the recovery phase	13

## PROGRAM GOVERNANCE

Since 2011, a dedicated GFDRR team has been located in Brussels, to better support the implementation of the ACP-EU NDRR Program and to ensure day-to-day coordination with the EU and the ACP Secretariat and other partners. Once a project is endorsed, GFDRR ensures the management of the funds and implementation of activities, embeds the activity within the broader World Bank engagement in the country, and works with the grantee on contracting and further administrative arrangements.

A Steering Committee – consisting of representatives from the European Commission, the ACP Secretariat, and the World Bank – meets twice a year to review progress, provide advice and guidance, and address needs arising from project implementation. During the meeting, the overall portfolio, financial overview, and status of the monitoring framework is presented.



A landscape in the Serengeti national park, Tanzania / Source iStock

# How we work

The ACP-EU NDRR Program achieves its objectives by implementing three strands of activities or “Windows”:

## **WINDOW 1** Regional & Sub-Regional Level projects

Activities on the regional level, advancing the national DRR agendas of ACP countries through regional and sub-regional cooperation.

## **WINDOW 2** Country Level projects

Activities on the national level, driving DRR and CCA policy development and implementation in ACP countries through need-based and demand-driven technical assistance, including technical advisory capacity.

## **WINDOW 3** Post-Disaster, Capacity Building & Recovery Activities

Post-disaster and capacity building activities, improving the ability of ACP countries to respond to disasters efficiently and effectively by building ex-ante capacity to conduct post-disaster needs assessments, by providing rapid technical assistance, and by mainstreaming DRR in recovery planning.

Activities under Window 1 and 2 are predominantly ex-ante activities, aiming to enhance resilience before disasters hit. Activities under Window 3 are predominantly ex-post activities, aiming to improve post-disaster response and recovery. Projects focus on providing technical assistance, and building of in-country capacity, to integrate multi-sectoral and multi-hazard risk management approaches into national and regional development planning. This helps foster informed decision-making on resilience, recovery, reconstruction and long-term development planning.

The ACP-EU NDRR Program has implemented activities under these three components in close collaboration with partners. Activities are demand-driven and needs-based, so support for national governments is vital for the approval and implementation of projects. The Program works with national and local governments, communities, civil society and other stakeholders, and has also developed key partnerships with partners such as UNDP, IOM, UNICEF and OXFAM.

## SUPPORTING AFRICAN REGIONAL ECONOMIC COMMUNITIES

The ACP-EU NDRR Program was expanded in 2014 with an additional €20 million for regional activities, to support the DRM coordination capacity of African Regional Economic Communities (RECs). This supplementary contribution falls administratively under the ACP-EU NDRR Program, but the activities implemented with the project contribute to the achievement of the 2nd expected result (R2) of the ACP-EU Program “Building Disaster Resilience to Natural Hazards in Sub-Saharan African Regions, Countries, and Communities.” A separate activity report presents the activities of the R2 Program in FY18.

## CROSS-CUTTING ISSUES

Gender Inclusion and Engagement with Civil Society are key operating principles of the ACP-EU NDRR Program and more broadly of the work of GFDRR.

### GENDER INCLUSION

Understanding the different needs and capacities of women and men is critical for effective DRM, as women typically outnumber men among casualties from natural disasters. The empowerment of women is an important component of building broader community resilience, and women can be leading actors in strengthening resilience.

GFDRR launched the Gender Action Plan 2016-2021 to accelerate its commitment to understanding and addressing the different needs of men and women, and to promote the empowerment of women in strengthening resilience. Under GFDRR's Work Plan 2017-2019, 53% of the proposed projects are expected to undertake specific actions to address gender dimensions. The monitoring and evaluation framework of the ACP-EU NDRR Program contains indicators to track the progress made towards enhancing gender and women's empowerment in the Program portfolio.

### ENGAGEMENT WITH CIVIL SOCIETY

Meaningful partnerships with governments, communities and Civil Society Organizations (CSOs) can reduce the costs of projects, ensure local acceptance and sustainability, and build connections between actors. CSOs can provide on-the-ground knowledge and access at the local level, contributing to the greater accountability and impact of projects. Consultations with local CSO groups thus inform the design of projects implemented under the ACP-EU NDRR Program, and CSO groups are also an implementing partner for a number of projects. The monitoring and evaluation framework of the ACP-EU NDRR Program contains indicators on the inclusion of CSOs in project design and implementation.



Children from the Samburu tribe, Kenya / Source iStock

# Where the Program Operates

DISTRIBUTION PER REGION, 2011 TO JULY 2018



DISTRIBUTION PER WINDOW OF ACTIVITY, 2011 TO JULY 2018

## Window 1

Regional & Sub-Regional Level projects

**18**

## Window 2

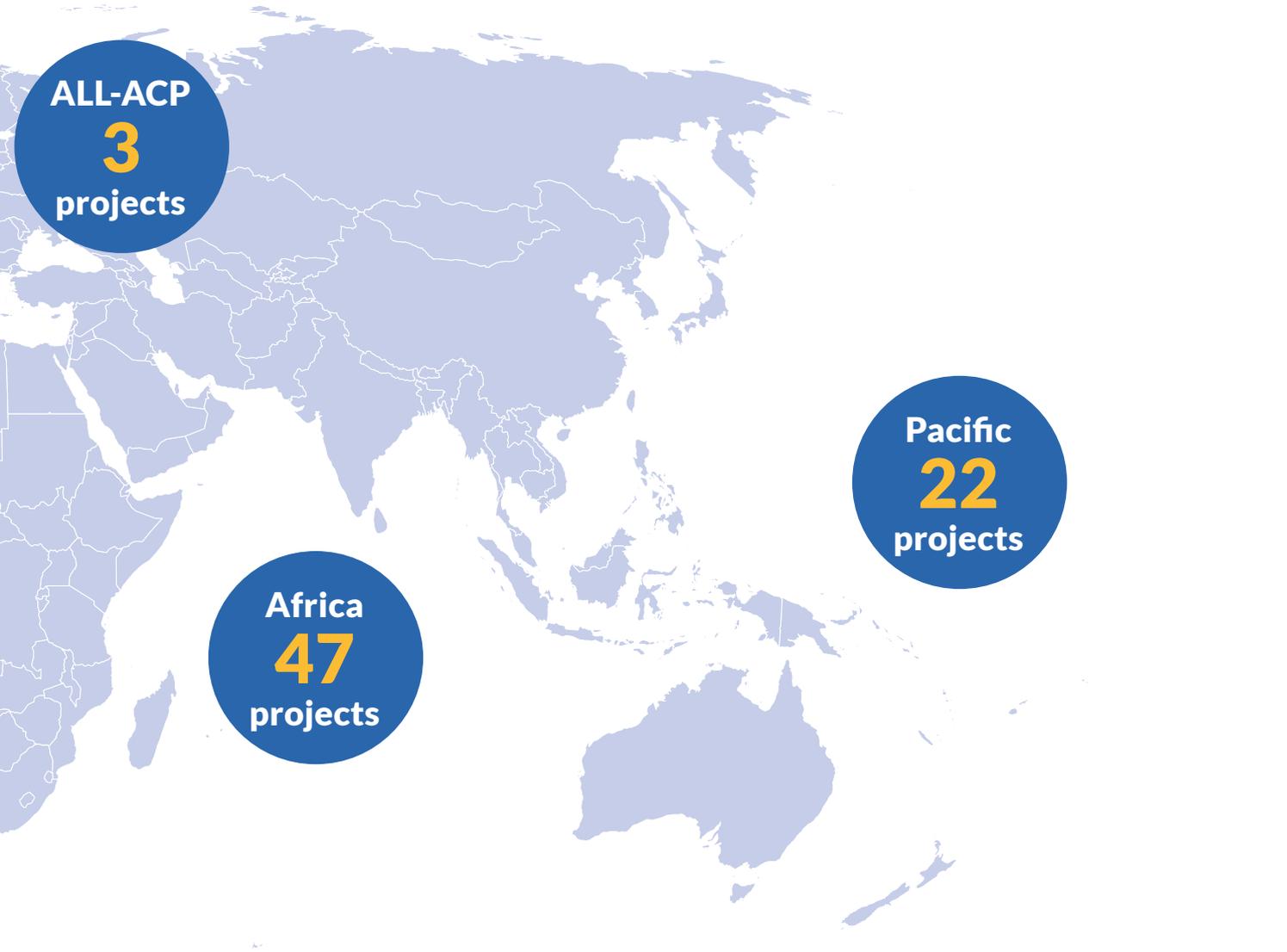
Country Level projects

**49**

## Window 3

Post-Disaster, Capacity Building & Recovery Activities

**34**



## CAPACITY BUILDING

Since inception, the ACP-EU DNRR Program has organized **529 training events, benefitting 21057 participants:**

People trained on DRM

**15421**

People trained on PDNAs

**2628**

People invited to conferences

**3008**

# The Program in Africa



*In FY18, in response to country demands the ACP-EU NDRR Program supported an increasing number of urban resilience projects in Africa. Support was also provided for the integration of DRR and CCA in development planning, to assessing disaster risk, and improving climate services.*

## ACTIVITIES IN AFRICA

This section provides a broad overview of the projects in Africa supported by the ACP-EU NDRR Program in FY18. Brief descriptions of each project can be found in Annex 2. Twelve projects at the country-level (Window 2) were active in Africa in FY18.

An increasing number of projects aimed to scale up resilient **urban development** and informed other government-led projects in urban resilience. In Brazzaville and Pointe Noire, **Republic of Congo**, a program is integrating urban resilience into the design and implementation of the Urban Development and Poor Neighborhood Upgrading Project. Technical assistance is provided to help implement resilient infrastructure and to build capacities and develop tools to enable central and local governments make informed decisions and be better prepared for disaster risks.

An in-depth study on disaster risk in Kinshasa, **Democratic Republic of the Congo** will help to improve the climate resilience of the \$150 million Kinshasa Urban Development and Resilience Project, by assessing disaster risk-proof investment options and conducting studies on their social and environmental impact. In Greater Accra, **Ghana**, support was provided to identify flood management and drainage infrastructure which can be improved through the Greater Accra Resilient and Integrated Development project.

The ACP-EU NDRR program is also helping to integrate DRR and CCA in **development planning**. In **Cameroon**, municipalities are being helped to incorporate climate and disaster risk information into urban planning and investments. In **Ethiopia**, improved disaster risk profiles, preparedness and contingency plans were developed in FY18 for 27 districts, and government staff were trained on data collection and analysis, and on developing DRM plans.



Landscape Serengeti Tanzania / Source iStock

In **Mozambique** and **Sierra Leone**, the capacity of communities was built to implement community-based DRM. In Mozambique, this was achieved in part through the development of a methodology and training manual for community-based DRM activities (see more information in the In-Focus section below), and in Sierra Leone by conducting participatory urban risk assessments, among other measures. In **Zimbabwe**, DRR and CCA is integrated in development planning processes at village, ward and district levels in the Kariba district, with the development of the Nyaminyami DRM plan and disaster risk awareness activities that were carried out in three wards.

Other projects are designed to **address flood and landslide risk**. In **Uganda**, a flood risk assessment was conducted for the Kasese District to identify the factors associated with the Nyamwamba river flooding. Possible risk mitigation and community resilience measures were also identified. In **Burundi**, flood risk and landslide risk knowledge is being improved and made accessible to local communities, through the development of community-managed early warning mechanisms and improved weather forecasts.

In North-West **Rwanda**, flood forecasting and early warning capacity in the Sebeya River Basin has been improved through technical studies on hydrological modelling and flood-risk mapping and by providing technical assistance for the development of early warning systems, among other measures. A project co-funded by the Climate Risk and Early Warning Systems Initiative, Global Environmental Facility and ACP-EU NDRR program in the **Democratic Republic of Congo** is strengthening the institutional and regulatory capacity of the National Hydrological and Meteorological Service, MettelSat. To this end, an institutional analysis was conducted.

## POST-DISASTER ACTIVITIES

The ACP-EU NDRR Program supported two **Post-Disaster Needs Assessments** (PDNAs) in Africa (Window 3). A drought PDNA and recovery framework activity was undertaken in **Somalia**, following the poor rainy seasons in 2016 and 2017 and the resulting risk of famine in early 2017 (see more information in the In Focus section below). This PDNA has the potential to leverage significant financing for drought recovery and resilience building from development partners and donors. In **Sierra Leone**, a rapid needs assessment and recovery framework was conducted after the August 2017 landslides and floods. The assessment estimated the total economic value of the effects of the event at \$31,65 million, and the subsequent Recovery Framework sequenced and prioritized recovery interventions.



Sunset over Gorongosa National Park, Mozambique / Source iStock

## In Focus: Integration of DRR and CCA into District Development Plans in Mozambique

To increase the resilience of vulnerable communities, DRR and CCA need to be mainstreamed into development processes such as economic, social, and environmental engagements. Linking DRR with development entails integrating DRR into policies, plans, programs and budgets at all levels.

The ACP-EU NDRR project in Mozambique was implemented by World Vision to build capacity to implement Community Based DRM in 32 target communities in three districts in the Gaza Province – Chibuto, Chókwè, Guijá. Working together with national and local government officers and civil society organisations, the project delivered a methodology for community-based DRM activities. A manual for establishing and training local DRM Committees was produced - previously only 21 of the 32 target communities had such committees in place, various of which had been inactive. The DRM methodology and training manual are now the standard reference for the Government and for all partners supporting community-based DRM interventions in Mozambique.

The project also enhanced the integration of DRR and CCA in District Development Plans. A methodology was developed with inputs from central, provincial and district level government officers and stakeholders, and approved in June 2018. In addition, guidelines for the development of Local Adaptation Plans were revised and approved in June 2018.

Crucial to the success of the project has been strong local ownership, which was strengthened by the trainings for government and community members. Ten technicians from the National Institute for Disaster Management and government officers from the Chibuto, Chókwè, and Guijá districts were trained on the new methodology for community-based DRM activities, and they in turn provided trainings to members of the 32 target communities on hazard, vulnerability, and capacity analysis. Trainings were also delivered on improving community-based Early Warning Systems, and on designing and implementing disaster preparedness and response plans. A result of this engagement was the completion of a disaster preparedness plan for the Guijá district.

## In Focus: **Somalia Drought Impact and Needs Assessment**

Recurrent drought, food insecurity, and the subsequent risk of famine have created a devastating and cycle of events in Somalia in recent decades. The drought in 2016-2017 left over 6.2 million people food-insecure and in need of humanitarian assistance. Although famine was averted, this remains a looming risk in the years ahead. Since the end of the previous drought in 2011, approximately \$4.5 billion has been spent on emergency responses to save lives in Somalia, but only long-term development gains will allow the country to break out of its recurrent cycle of crisis.

In August 2017, the Federal Government of Somalia requested support from the EU, UNDP, and World Bank/GFDRR to identify the root causes of recurrent droughts. The Drought Impact and Needs Assessment (DINA) undertaken by the government with support from the three partners identified these causes, setting the framework for the development of effective medium-term recovery strategies and long-term resilience efforts.

The DINA estimated that the drought in 2016 and 2017 caused damages and losses totaling over \$3.25 billion across a number of sectors, requiring recovery interventions estimated at \$1.77 billion. The DINA covered all of the Somalia peninsula's 18 regions that had been affected by the drought, using a unique combination of remote sensing technologies - from satellite imagery to on-the-ground field surveys - to fill information gaps where insecurity made access impossible.

The DINA is aligned with the Humanitarian Response Plan, connecting humanitarian and recovery interventions. More than 180 sector experts from government and international partners collected, validated and analyzed data, and developed recovery strategies across 18 sectors and cross-cutting areas. The DINA and the HRP together provide the foundation for a drought action plan for Somalia for many years to come.

**The Volumes of the report are available online:**

- **Volume I:** <https://www.gfdr.org/somalia-dina-volume1>
- **Volume II:** <https://www.gfdr.org/somalia-dina-volume2>
- **Volume III:** <https://www.gfdr.org/somalia-dina-volume3>

➤ **A feature story on the project is available at:** <https://www.gfdr.org/somalia-engaging-early-and-together>



Somalia DINA / Source UNDP Somalia

# The Program in the Caribbean

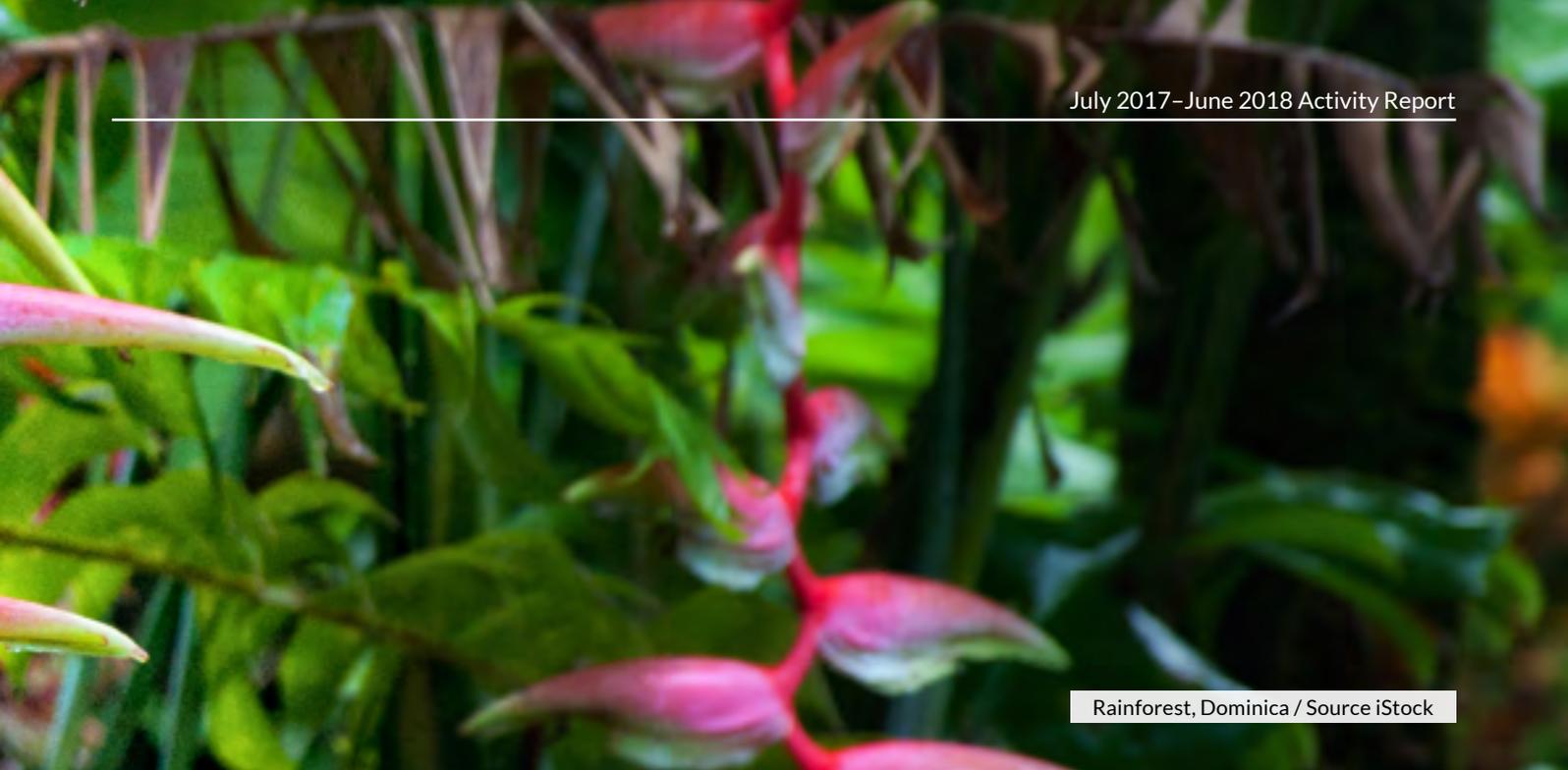
*The ACP-EU NDRR activities in the Caribbean in FY18 showed an ongoing shift in focus from post-disaster interventions to proactive disaster risk management. Projects accelerated work on disaster risk financing, and helped countries to identify the risks natural hazards pose to key infrastructure, and investments that can address these risks.*

## ACTIVITIES IN THE CARIBBEAN

This section provides a broad overview of the projects in the Caribbean supported by the ACP-EU NDRR Program in FY18. Brief descriptions of each project can be found in Annex 2. Eleven projects at the country-level (Window 2) were active in the Caribbean during FY18.

One program in FY18 included four projects at the national level that accelerated work on **disaster risk financing** in **Belize, Grenada, Jamaica, and Saint Lucia**. The projects supported the Governments of these countries to better understand and manage the fiscal impacts of disasters and to identify cost-effective financial protection options. It assessed historical losses and disaster-related government expenditures, delivered country disaster risk profiles, and developed options for a disaster risk finance strategy (see more information in the In Focus section below).

In the **Dominican Republic**, a project informing the preparation of a financial protection strategy, develops disaster risk profiles for earthquakes and hurricane winds, and promotes the development of DRM policies that will contribute to **shared prosperity**, by analyzing the impact that disasters have on poverty and welfare. In **Saint Lucia**, a project analyzing the impact of natural disasters on social vulnerability will inform DRM strategies and policies that better target the poor and socially vulnerable.



Rainforest, Dominica / Source iStock

The ACP-EU NDRR Program also supported countries in assessing the risk natural hazards pose to **key infrastructure**. In **Saint Lucia**, tools have been developed to assess landslide, seismic and flood hazard risk, and a system is under development that will underpin an inventory of infrastructure assets. In the **Dominican Republic**, a project evaluated the risks public schools face, by applying the Safe School Index to 48 schools and by producing hazard maps on the risk of drought, flooding and wildfire for the 48 schools. In **Jamaica**, the Ministry of Transport was supported in conducting an analysis of the impact of floods and hazards on the road network and transport infrastructure, and in drafting Guidelines for Coastal Protection and Beach Restoration (see more information in the In Focus section below).

The ACP-EU NDRR Program also promotes **urban resilience**. In **Suriname**, a flood risk assessment of the Greater Paramaribo Area was conducted, and prioritized flood reduction investments were identified. Building on this support, a follow-up ACP-EU NDRR project is supporting the Government of Suriname to implement a new investment in flood mitigation focusing on the Saramacca Canal.

## POST-DISASTER ACTIVITIES

The ACP-EU NDRR Program funded two **Post-Disaster Needs Assessments** in the Caribbean in FY18 (Window 3), which leveraged significant additional support. The PDNA conducted in response to Hurricane Irma, which hit **Antigua and Barbuda** on the night of 5 and 6 September 2017, estimated that losses and damages amounted to \$155 million and recovery and reconstruction needs to \$222 million. The PDNA helped mobilize additional resources, such as \$5.9 million from the EU for the reconstruction of houses in Barbuda.

The PDNA establishing the damages, losses and needs resulting from Hurricane Maria that hit **Dominica** on 18 September, was presented at a CARICOM-UN High Level Pledging Conference in November 2017 to mobilize support for Caribbean countries. Dominica secured two emergency support operations from the World Bank totaling \$65 million for restoring agricultural livelihoods and rebuilding destroyed houses, among other commitments. A follow-up ACP-EU NDRR activity is now supporting **resilient reconstruction** in Dominica, and aims to improve the application and uptake of resilient building practices and building-back-better consideration in the housing sector.



Main street of Caye Caulker, Belize / Source iStock

## In Focus: Caribbean Disaster Risk Financing Technical Assistance



After a disaster, the budget of the affected country faces pressures such as an increase in the number of people who are dependent on emergency aid, reduced state incomes resulting from damage to public enterprises, the disruption of supply chains, and additional expenditure for the reconstruction of public infrastructure. Thinking *before* a disaster occurs about how to meet such costs is vital. The Caribbean with its hurricane seasons is particularly vulnerable, as seen in the unprecedented damage caused by Hurricanes Maria and Irma across several islands in 2017.

The Caribbean Disaster Risk Financing Technical Assistance project helped Belize, Grenada, Jamaica and Saint Lucia to design cost-effective, tailored strategies that would help each country improve their fiscal resilience to disasters. The project delivered baseline information on historical losses and disaster-related government expenditures within the last 15 years, as well as Country Disaster Risk Profiles on earthquake and windstorm risk at the national level.

Gaps in sovereign fiscal protection against disasters and climate-related risk were analyzed in close cooperation with the Ministries of Finance of these countries. This entailed quantifying countries' contingent liabilities to estimate the fiscal risk of natural disasters; reviewing their existing systems for public financial management of disasters and their legal frameworks for addressing shocks; and evaluating the domestic non-life insurance market in each market to determine their capacity to build strong financial sectors for public and private risk transfer.

These efforts led to a better understanding of exposed assets and fiscal risk. For example, it was estimated that the government of Jamaica would need approximately \$121 million annually to address the impacts of hurricanes and floods. Based on the priorities and economic context in each of the countries, customized solutions were identified by the Ministries of Finance as key priority areas for improvement. Two such areas were the streamlining of reporting on post-disaster expenditures, and the establishment of contingency reserve funds.

The reports detailing the recommendations for strengthening financial protection were shared and discussed with country stakeholders and other development partners during a south-south exchange workshop in Bridgetown, Barbados, in October 2017. The final reports were published and launched during a session at the Understanding Risk Forum in Mexico on 15 May 2018. Moving forward, the reports have already served as inputs to Climate Change Policy Assessment papers and national fiscal policy papers.

➤ The reports For Belize, Grenada, Jamaica and Saint Lucia are available at: <https://www.gfdr.org/belize-grenada-jamaica-and-saint-lucia-reports-advancing-disaster-risk-financing>

## In Focus: Strengthening Disaster Risk Management and Climate Resilience in Jamaica's Development Planning Process



Various measures can strengthen a DRM framework: mainstreaming DRM in policy development; improving the application of disaster risk analysis in various sectors; and strengthening institutional capacity for disaster vulnerability reduction are three of these. In FY18, the ACP-EU NDRR project in Jamaica adopted these with the aim of developing new risk tools to guide risk reduction and emergency preparedness, and to support the Government of Jamaica to better integrate DRR and CCA considerations into national development planning processes.

As a first step, the project supported the Government in conducting an analysis of the impact of floods and landslides on the road network and transport infrastructure of Jamaica. The report “Natural Hazard and Disaster Risk Assessment for Improved Transport Infrastructure Management – the Case for Application for Jamaica” was finalized, and will now inform decision making by the Ministry of Transport.

The project finalized the *Guidelines for Coastal Protection and Beach Restoration*, which were developed in collaboration with a Technical Working Group consisting of representatives of local institutions, such as Jamaica’s National Environment and Planning Agency and the Office of Disaster Preparedness and Emergency Management. The new guidelines provide advice on how coastal management schemes and activities can be implemented in Jamaica, and on how such interventions can be made climate resilient.

A National Strategy for Resettlement regarding natural disasters was developed, in preparation for possible future climate change impacts. A number of government agencies were involved in the preparation of the strategy, including the Ministry of Economic Growth and Job Creation, that coordinates the resettlement agenda within the country. The final version of the strategy has been handed to the Government.

The final element of the project was the strengthening of emergency preparedness. The gaps in capacity building were detailed in an analysis which can feed into a future training plan for emergency preparedness and management.

The ACP-EU NDRR Project has been successfully completed, and its results will complement the ongoing World Bank’s “Jamaica Disaster Vulnerability Reduction Project”. The latter project will support Jamaica’s emergency preparedness and capacity to respond to the impacts of natural hazards, for which the analysis conducted under the ACP-EU NDRR Project will be indispensable.

➤ The *Guidelines for Coastal Protection and Beach Restoration* are available at: <https://www.gfdrr.org/jamaica-coastalmgmt-beathrestoration-guidelines>



Jamaican coast at Negril / Source iStock

# The Program in the Pacific

*ACP-EU NDRR activities in the Pacific in FY18 assisted countries in assessing climate and disaster risks, and using these assessment for advocacy efforts and policy making. Various projects also supported institutional strengthening for DRM.*

## ACTIVITIES IN THE PACIFIC

This section provides a broad overview of the projects in the Pacific supported by the ACP-EU NDRR Program in FY18. Brief descriptions of each project can be found in Annex 2.

The ACP-EU NDRR Program supported three regional projects (Window 1) in FY18 in the Pacific. The first of these strengthened the capacity of selected **Pacific Island States** - namely the Federated States of Micronesia, Fiji, Republic of the Marshall Islands, Samoa, Solomon Islands, Tonga and Vanuatu - to mainstream DRM and CCA into the design of **infrastructure investments**. The tools and assessments developed under this project, such as a road vulnerability assessment in Samoa and a coastal hazard risk assessment in the Republic of the Marshall Islands, supports the larger World Bank-funded Pacific Resilience Program.

Other regional projects supported the development of **risk assessments**. One project enhanced the capacity and readiness of Pacific Island States to deploy Unmanned Aerial Vehicles (UAVs) for disaster and climate risk assessments, and surveyed the main island of **Tonga** with UAVs (see more information in the In-Focus section below). A project in the **Republic of the Marshall Islands and the Federated States of Micronesia** planned hazard-, vulnerability-, and capacity-mapping activities for 10 communities, and will assess the risks posed to public buildings such as schools and hospitals.



Tropical island, Palau, Micronesia / Source iStock

Six country-level (Window 2) projects in the Pacific were supported, several of them supporting **studies** which will inform future policies. In Fiji, a climate vulnerability assessment evaluated the impact of climate change on Fiji in the coming decades. This was presented in November 2018 during the 23<sup>rd</sup> session of the Conference of the Parties (COP23) to the UN Framework Convention on Climate Change (UNFCCC), hosted by **Fiji** in Bonn, Germany (see more information in the In Focus section below). In the **Solomon Islands**, work started on a study assessing flood risk in the capital of Honiara and setting out options to inform a flood risk management plan. Support has been provided to the Government of **Kiribati** to plan for resilient urban expansion that meets the needs and priorities of low- to low-middle income households, by analyzing how climate change affects drivers of urbanization, and by developing and carrying out a housing needs and priority survey, among other measures.

Various country-level projects were designed to support the **institutional strengthening of DRM**. In **Vanuatu**, the National Disaster Act was reviewed, two Provincial Disaster Centers were constructed in the Tafea and Torba province, and sheds for 8 seismic stations constructed and equipment installed. In the **Solomon Islands**, a review of the National Disaster Management Plan was completed and endorsed by the National Disaster Council, and community DRM planning was completed for 55 targeted communities. In **Tonga**, a project reviewed and updated Tonga's National Emergency Management Plan and Emergency Management Act. It supported the implementation of the National Tropical Cyclone Ian Response Plan by strengthening the climate resilience of housing and selected community facilities for the affected population of the Ha'apai Islands.

## POST-DISASTER ACTIVITIES

The ACP-EU NDRR Program funded a **Rapid Damage Assessment** following Tropical Cyclone Gita, that hit **Tonga** in February 2018 (Window 3). The Tropical Cyclone caused widespread damage and directly affected almost 80 percent of the population. The assessment made use of UAVs, which were tested during the Window 1 ACP-EU NDRR project and assessed Tonga before Cyclone Gita hit. Comparing the pre- and post-disaster images helped to outline next steps in reconstruction and recovery efforts (see more information in the In-Focus section below).



Traditional Navala, Fiji / Source iStock

## In Focus: **Climate Vulnerability Assessment: Making Fiji Resilient**



Fiji is a small island nation in the South Pacific Ocean, with an area of 18,000 km<sup>2</sup> spread over 332 islands and a population of about 900,000. Fiji is facing significant development challenges, which are closely related to the impacts of climate change. Natural hazards impact GDP growth significantly: by 2050 Fiji's annual losses due to extreme weather events could reach 6.5 percent of GDP.

The Fiji Climate Vulnerability Assessment detailed the climate and disaster risks in Fiji, and the development needs and opportunities, to inform development planning and investment decisions. The report was launched during the 23<sup>rd</sup> session of the Conference of the Parties (COP23) to the UN Framework Convention on Climate Change (UNFCCC) in November 2017, under Fiji's historic presidency of this major international event. The report was published alongside a Virtual Reality experience, *Our Home, Our People*. Key projections from the report include:

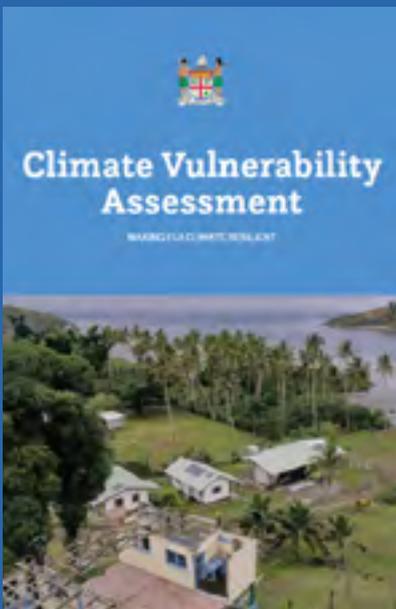
- By 2050, Fiji's annual losses due to extreme weather events could reach 6.5 percent of GDP because of the impact of climate change;
- The number of Fijians being pushed into poverty and hardship could increase from 25,700 people per year to an estimated 32,400 per year by 2050;
- The growing cost of climate change-related disasters is likely to rise significantly, with projections that it could result in floods and cyclones leading to asset losses up to 30 percent higher than current averages.

The Assessment identified 125 measures across five priority areas that can help Fiji minimize risks and adapt to climate change. According to the assessment, an estimated \$4.5 billion over 10 years is required to finance these interventions. The methodology used in the report can be replicated by other countries, and inform their DRM and adaptation plans.

➤ **The final report of the Climate Vulnerability Assessment is available at:** <https://www.gfdrr.org/fiji-cva-fullreport>

➤ **A video accompanying the final report is available at:** <https://youtu.be/toOLqRJDV8k>

➤ **A Results in Resilience Feature Story on the Fiji Climate Vulnerability is available at:** <https://www.gfdrr.org/fiji-cva-resultsinresilience>



# In Focus: Utilizing Unmanned Aerial Vehicles for Disaster Assessments



Small island states are among the countries most vulnerable to the impacts of climate change and natural disasters. However, these states often lack the basic data that allows for analytics to be carried out to assess, identify, and quantify risks, and to conduct rapid assessment following a disaster. The unique geography of these countries, which consist of many small and often remote islands, means they need a local solution for the collection of high resolution data. Unmanned Aerial Vehicles (UAVs) can help fill this risk information gap, as they provide a flexible means to collect images to supplement the traditional sources such as satellites.

The *UAV4Resilience Project - Utilizing Unmanned Aerial Vehicles for Disaster Assessments in the Pacific Islands* developed the capacity and readiness of Fiji and Tonga to deploy UAVs for disaster and climate risk assessments, and for rapid identification of damages in post-disaster situations. Through the project, high resolution aerial images from UAVs generated cost-effective, ex-ante baseline mapping data and digital elevation models. The development of local capacity and bottom-up data generation has led to better ownership from the data. The datasets can now be updated frequently - for example, to monitor the change in the physical environment, parcel mapping, and crop monitoring.

The UAV4Resilience project surveyed the main island of Tonga, Tongatapu, in October 2017. Tonga was also assessed with the assistance of UAVs following Tropical Cyclone Gita, which hit the Tonga in February 2018. Comparing the images before and after the disaster enabled the creation of a post-disaster baseline map that could be incrementally updated through the recovery and reconstruction phases.



Comparison: UAV image (top) - satellite image (bottom) / Source: World Bank

The results of the project have the potential to inspire the use of UAVs well beyond the Pacific. They were shared during the G7 Ministerial Meeting held between 31 May and 2 June 2018, and the UAV datasets are available on [OpenAerialMap.org](http://OpenAerialMap.org).

- **A Results in Resilience Feature Story is available at:** <https://www.gfdrr.org/sites/default/files/publication/UAV4Resilience.pdf>
- **The Post Disaster Rapid Assessment is available at:** <https://www.gfdrr.org/tonga-post-disaster-assessment-2018>
- **The UAV images of Tonga are available at:** <https://map.openaerialmap.org/#/-175.078125,-21.289374355860424,6/square/20002233?k=30r0sv>



Use of UAVs. / Source - World Bank Private

# Leveraging Investments in Disaster Risk Management

Since its inception, the ACP-EU NDRR Program has benefitted from GFDRR's ability not only to harness the World Bank's convening power and technical expertise, but also to leverage the World Bank's financing capacity and attract financing from other sources. The ACP-EU NDRR Program has implemented over 100 projects in more than 50 ACP countries, resulting in significant additional investments in DRM. To date, the ACP-EU NDRR Program has leveraged nearly \$2 billion through *co-financing*, *enabling in leveraging*, and *informing in leveraging*.

**Co-financing** is the joint or parallel financing of a project through loans and/or grants. In this instance, an ACP-EU NDRR project is part of a broader financing package with other funding sources. These different funding sources finance the same program, objective, components and expected results together, to avoid fragmentation of aid. No new cases of co-financing occurred in FY18.

**Enabling in leveraging** is the ability of an ACP-EU NDRR project to trigger financing that would not have become available without this ACP-EU NDRR project. This includes, for example, cases where co-financing is a prerequisite for additional financing, or where the activities of an ACP-EU NDRR project ensure that a country meets the criteria to be eligible for a World Bank loan (Development Policy Operation). Four new cases of enabling in leveraging have been identified in FY18, two for projects in Africa, one in the Caribbean, and one for a project in the Pacific.

- The **Mozambique Integration of DRR and CCA into District Development Plans** project, financed with \$580,300 from the ACP-EU NDRR Program, enabled the approval of the \$80 million World Bank-financed *Mozambique Disaster Risk Management and Resilience Program*. The objective of this program is to strengthen the capacity of the Government of Mozambique to prepare for and respond to disasters, and increase the resilience of key public infrastructure in risk-prone areas.
- The **Zimbabwe Mainstreaming DRR and CCA into Local Development Planning through the Zambezi River Basin Initiative**, financed with \$500 000 from the ACP-EU NDRR Program, enabled the approval of \$407 000 from the Danish Red Cross.
- The **Dominican Republic Building Physical and Financial Resilience to Ensure Shared Prosperity** project, financed with \$800 000 by the ACP-EU NDRR Program, enabled the approval of a \$150 million World Bank *Development Policy Loan with Catastrophe Drawdown Option (Cat DDO)*.
- The **Fiji Climate Vulnerability Assessment**, financed with \$450 000 by the ACP-EU NDRR Program, enabled the approval of the \$15 million World Bank-funded *Fiji Fiscal Sustainability and Climate Resilience Development Operation*. This Development Policy Operation will support Fiji's reform efforts to strengthen medium-term fiscal sustainability while undertaking structural reforms to improve the business climate and resilience to climate change.

**Informing in leveraging** involves an ACP-EU NDRR project informing another World Bank financing operation, or providing evidence (such as risk assessments or post-disaster needs assessments) that informs larger investments from national governments or development partners. The other financing operation or larger investment would thus have been designed differently had the activities under the ACP-EU NDRR project not taken place. Eight new cases of informing in leveraging have been identified in FY18, of which four were in Africa and four in the Caribbean.

- The **Cameroon Integrating Climate and Disaster Risk Consideration** into Development Planning project informs the \$160 million World Bank-financed *Inclusive and Resilience Cities Development* project, which supports the efforts of the Government of Cameroon to improve urban living conditions and resilience to natural hazards in seven cities. The ACP-EU NDRR project provides disaster risk assessments of selected beneficiary cities, and provides technical assistance to municipalities in incorporating climate and disaster risk information into urban planning and investments.
- The **Democratic Republic of Congo Kinshasa Urban Development** project will inform the World Bank-funded *Kinshasa Urban Development and Resilience Project* worth \$150 million. The former project supported an in-depth study on disaster risk in Kinshasa, and the latter will now support the Government of the DRC in improving living conditions in selected poor and vulnerable neighbourhoods of Kinshasa.
- The **Rwanda Building Resilience to Flood Hazards in Northwest Rwanda** project improves the flood forecasting and early warning capacity in the Sebeya River Basin of North-West Rwanda. The outputs of the project inform the \$9.5 million World Bank-funded *Landscape Approach to Forest Restoration and Conservation* project, which promotes flood risk reduction and land restoration activities.
- The **Sierra Leone Post-Mudslides Floods Rapid Damage and Loss Assessment and Recovery Framework** project informs the World Bank-financed *Freetown Emergency Recovery Project*, worth \$10 million. The assessment outlined that the economic impact of the landslides and floods in August 2017 totalled \$31,65 million, and the subsequent Recovery Framework established a sequenced and prioritized framework of recovery interventions. The World Bank *Freetown Emergency Recovery Framework* assists with the rehabilitation of selected critical infrastructure, and strengthens government capacity for managing disaster risk.
- The **Dominica Hurricane Maria Post Disaster Assessment and Support to Recovery Planning** project informed various World Bank-funded projects. The first is the \$40 million *Dominica Housing Reconstruction* project, which focuses on rebuilding houses and improving the application of resilient building practices. The second is the \$25 million *Emergency Agricultural Livelihoods and Climate Resilience* project, which helps farmers and fisher folks to restore their agriculture and fishing production and systems, and adopt climate smart practices. In addition, the World Bank provided \$31 million in additional financing to the Dominica Disaster Vulnerability Reduction Project, which supports investments in resilient infrastructure in Dominica and improves hazard data collection and monitoring systems.
- The **Suriname Paramaribo Climate Resilience and Flood Management Technical Assistance** informs the World Bank-funded \$30 million *Saramacca Canal System Rehabilitation* project. The ACP-EU NDRR project helped the Government of Suriname to initiate and implement a new investment in flood mitigation, with a focus on the Saramacca Canal, identified as a priority investment in an earlier ACP-EU NDRR supported study of flood risk in the Greater Paramaribo area. The *Saramacca Canal System Rehabilitation* project seeks to improve the operation of the Saramacca Canal System for flood risk management and navigation, and thereby to reduce flood risk.

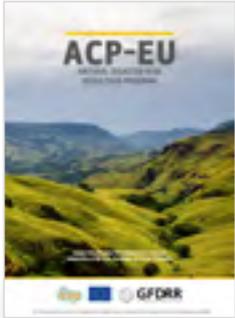
# Annex I: Communication and Visibility

Between July 2017 and June 2018, various reports, project outputs and outreach documents were published on the ACP-EU NDRR Program.



Flooded Caribbean town / Source iStock

## ACTIVITY REPORTS AND BROCHURES



### ACP-EU NDRR PROGRAM BROCHURE

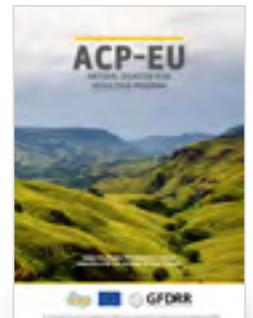
A brochure was updated outlining the objectives and selected achievements of the ACP-EU NDRR Program.

➤ The brochure is available at: <https://www.gfdr.org/acp-eu-ndrr-program-brochure>

### 2016–2017 ACP-EU NDRR ACTIVITY REPORT

The 2016-2017 Activity Report of the ACP-EU NDRR showcases the Program's support to countries in Africa, the Caribbean and the Pacific in building their resilience to natural hazards and CCA, and also features highlights of lessons learned from specific projects.

➤ The report is available at: <https://www.gfdr.org/acp-eu-ndrr-report-2016-17>



### 2016–2017 RESULT AREA 2 ACTIVITY REPORT

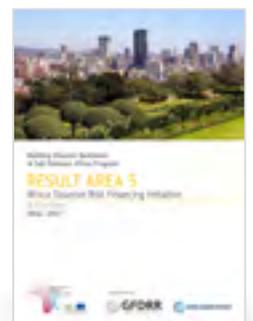
The Activity Report of the Result Area 2 Program for the period 2016-2017 showcases the Program's supports for African Regional Economic Communities in developing DRM coordination, planning and policy advisory capacity for their Member States. Result Area 2 is part of the Building Disaster Resilience in Sub-Saharan Africa Program, and is financed with an additional contribution to the single-donor Trust Fund of the ACP-EU NDRR Program.

➤ The report is available at: <https://www.gfdr.org/resultarea2-ar-2016-2017>

### 2016–2017 AFRICA DISASTER RISK FINANCING INITIATIVE ACTIVITY REPORT

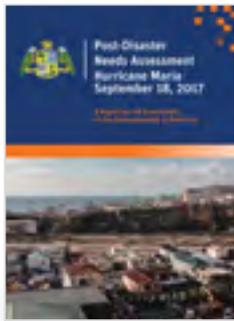
The Activity Report of the Result Area 5 Program for the period 2016-2017 summarizes the activities and achievements under Result Area 5 of the Program Building Disaster Resilience in Sub-Saharan Africa. Result Area 5, also known as the Africa Disaster Risk Financing Initiative, aims to support African countries in developing national risk financing tools and strategies that have the potential to significantly reduce disaster losses, speed recovery, and build resilience to natural hazards. Result Area 5 is not financed by the ACP-EU NDRR Program

➤ The brochure is available at: <https://www.gfdr.org/adrf-result-area-5-ar-2016-17>





## OUTREACH MATERIAL



### DOMINICA POST-DISASTER NEEDS ASSESSMENT FOLLOWING HURRICANE MARIA

The ACP-EU NDRR Program financed a post-disaster assessment that assessed the damages and losses Dominica suffered as a result of tropical cyclone Maria, which made landfall on Dominica as a category 5 storm in September 2017. The assessment informed the overall recovery strategy in Dominica, as well as additional financing.

➤ The PDNA is available at: <https://www.gfdr.org/dominica-pdna-hurricanemaria>

### DOMINICAN REPUBLIC: THE IMPACT OF HURRICANE STRIKES ON SHORT-TERM LOCAL ECONOMIC ACTIVITY

This Policy Research Working Paper on the impact of hurricane strikes on short-term economic activity in the Dominican Republic is part of the project Building Physical and Fiscal Resilience of the Dominican Republic to Ensure Shared Prosperity. The study found that the negative impact of storms lasts up to 15 months after they strike, with the largest effects observed after nine months, and that on average storms reduced gross domestic product by about US\$1.1 billion.

➤ The paper is available at: <http://wrlid.bg/LWdE30mhSuZ>



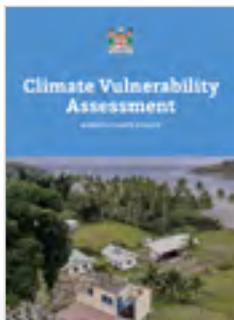
### FIJI CLIMATE VULNERABILITY ASSESSMENT

The Climate Vulnerability Assessment: Making Fiji Climate Resilient report was launched at COP23 in Bonn, under Fiji's historical presidency of the event. It provides significant new analysis, including projections that show the impact of climate change in Fiji in the coming decades, and analyses of what projected sea level changes mean for coastal communities and low-lying islands in the country.

➤ The final report of the Climate Vulnerability Assessment is available at: <https://www.gfdr.org/fiji-cva-fullreport>

➤ A video accompanying the final report is also available at: <https://youtu.be/toOLqRJDV8k>

➤ A Results in Resilience Feature Story was published on the Fiji Climate Vulnerability Assessment; this is available at: <https://www.gfdr.org/fiji-cva-resultsinresilience>



### SIERRA LEONE POST-MUDSLIDES AND FLOODS RAPID DAMAGE AND LOSS ASSESSMENT

In August 2017, a massive landslide in the rural Western area of Sierra Leone slipped into the Babadorie River Valley, exacerbating existing flooding in the area and in the capital, Freetown. This affected about 6,000 people of whom over 1140 have been declared dead or missing. With funding from the ACP-EU NDRR Program, a Rapid Damage and Loss Assessment was conducted, and a Floods Recovery Framework developed.

➤ The Rapid Damage and Loss Assessment is available at: <https://www.gfdr.org/sierraleone-dala2017>



## SOMALIA DROUGHT IMPACT AND NEEDS ASSESSMENT (VOLUME I, II, III)



The Drought Impact and Needs Assessment (DINA) was conducted following the 2016-2017 drought that brought Somalia to the brink of famine, leaving an estimated half of the population food insecure and in need of humanitarian assistance. The DINA established that damages amounted to \$1.02 billion and losses to \$2.23 billion. The DINA informed the development of a Resilient Recovery Framework.

The Volumes of the report are available online:

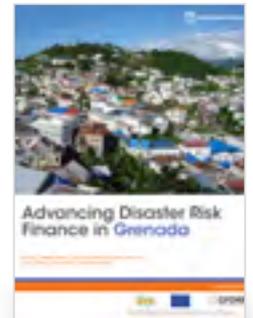
- Volume I: <https://www.gfdr.org/somalia-dina-volume1>
- Volume II: <https://www.gfdr.org/somalia-dina-volume2>
- Volume III: <https://www.gfdr.org/somalia-dina-volume3>

➤ A feature story on the DINA is available at: <https://www.gfdr.org/somalia-engaging-early-and-together>

## CARIBBEAN DISASTER RISK FINANCING PROGRAM

The ACP-EU NDRR Program-supported Caribbean Disaster Risk Financing Program helped the Governments of Belize, Saint Lucia, Jamaica, and Grenada to better understand and manage the potential fiscal impacts of disasters, and to identify cost-effective financial protection options.

➤ The project delivered reports with recommendations for advancing national DRF strategies, which are available at: <https://www.gfdr.org/belize-grenada-jamaica-and-saint-lucia-reports-advancing-disaster-risk-financing>



## BELIZE HAZARD AND RISK ASSESSMENT FRAMEWORK: PRIORITIZATION OF AN INVESTMENT PLAN

An article was published on the World Bank website on 25 July 2017, highlighting the impact of the ACP-EU NDRR-funded project implemented in Belize. The project was launched in June 2012 and closed in June 2016. The Project helped the Government of Belize build a decision-making framework to identify priority climate-resilient road investments, shared lessons learned with other practitioners, and made data accessible through a user-friendly interface.

➤ The article is available at: <http://wrlld.bg/ojZ30mhRPq>

## HOW AERIAL TECHNOLOGY IS HELPING PACIFIC ISLAND COUNTRIES RECOVER FROM NATURAL DISASTERS

An article was published on the World Bank website on 20 November 2017 highlighting the impact of the ACP-EU NDRR-funded project Utilizing Unmanned Aerial Vehicles (UAVs) for Disaster Assessments in the Pacific Islands. Launched in January 2017, the project aims to develop the capacity and readiness of Fiji and Tonga in deploying UAVs for disaster and climate risk assessments and for rapid identification of damage to the physical environment in post-disaster situations.

➤ The article is available at: <http://wrlld.bg/yj9q30mhVv9>





## OUTREACH MATERIAL



### URBAN FLOOD RISK MANAGEMENT IN THE PACIFIC

A knowledge note was published in December 2017 on the ACP-EU NDRR- supported Building Climate and Disaster Resilience in the Pacific project. The note describes a benchmarking method developed to track the progress of Pacific Island Countries towards best flood risk management. Flood risk management is a process for assessing flood risk, evaluating options to manage the risk, and implementing a strategic plan to reduce risk. The method was applied to assess urban flood risk management practices in Fiji, Samoa, the Solomon Islands, and Vanuatu.

➤ The knowledge note is available at: <https://www.gfdr.org/urbanfloodriskmgmt-pacific>

### SMALL ISLAND STATES RESILIENCE INITIATIVE

A video was published on the meeting of the Small Island States Resilience Initiative (SISRI) Practitioners' Network, which took place in May 2018. SISRI links island practitioners with one another, as well as with global knowledge on building resilience. The meeting covered a range of topics, and attracted over 70 participants.

➤ The video is available at: <https://youtu.be/MZhV1EaDh1c>



### THIRD EDITION OF THE WORLD RECONSTRUCTION CONFERENCE: PROCEEDINGS AND KNOWLEDGE REPORT

The third edition of the World Reconstruction Conference (WRC3) brought together approximately 800 participants from civil society, national and local governments, academia, the private sector and international organizations from around the world in Brussels from 6-8 June 2017. The conference addressed the role of post-crisis recovery and reconstruction for resilience building and disaster risk reduction, and participants shared experience with a view to advance the implementation of the 2015 Sendai Framework for Disaster Risk Reduction. The conference was jointly organized by the African, Caribbean and Pacific (ACP) Group of States, the European Commission, UNDP, and GFDRR/World Bank.

The WRC3 Proceedings and Knowledge Report are available at: <https://www.gfdr.org/wrc3proceedings>



## RESULTS IN RESILIENCE SERIES (FORMERLY STORIES OF IMPACT)



### TANZANIA: IMPROVING RISK INFORMATION

A Results in Resilience story was published on the Building Climate Resilience in Tanzania Water Sector project. This project has supported an activity known as Ramani Huria, which is Swahili for “Open Map.” Ramani Huria has enabled the collection of over 750,000 building footprints; 120 square kilometers of imagery and surface models; 2,091 kilometers of roads; and tens of thousands of points of interest such as toilets, water points, schools and other critical infrastructure.

➤ The story is available at: <https://www.gfdr.org/improving-riskinfo-tanzania-resultsinresilience>

### TOGO: ENHANCING DISASTER PREPAREDNESS

A Results in Resilience Story was published on the Integrated Disaster and Land Management (IDLM) Project. This \$16.94 million project was funded in part with \$7.3 million from GFDRR, including a \$3 million grant from the ACP-EU NDRR Program. The IDLM project focused on strengthening institutional capacity and awareness on the risk of flooding and land degradation, on community-based activities for adaptation and sustainable land management, and on developing early warning and monitoring systems. Over 115,000 citizens were informed about risk reduction, and 87 km of drainage systems were improved.

➤ These and other results of the project are presented in the Results in Resilience story, available at: <https://www.gfdr.org/togo-disaster-preparedness-resultsinresilience>



### FIJI AND TONGA: USING UNMANNED AERIAL VEHICLES TO ASSESS DISASTER RISK IN FIJI AND TONGA

A Results in Resilience story was published showcasing the support the ACP-EU NDRR Program provided to Fiji and Tonga to build their capacity and readiness to deploy Unmanned Aerial Vehicles (UAVs) for disaster and climate risk assessments, and for rapid identification of damages to the environment in post-disaster situations. The story also describes how high-resolution aerial images captured under this UAV4Resilience project fed into the Tonga Rapid Damage Assessment and Recovery Framework for Tropical Cyclone Gita, which was also supported by the ACP-EU NDRR Program and informed reconstruction and reconstruction efforts after the cyclone hit Tonga in February 2018

➤ The story is available at: <https://www.gfdr.org/sites/default/files/publication/UAV4Resilience.pdf>



## Annex II: Project Fiches



Women from the Maasai tribe collecting water, Kenya / Source iStock



## AFRICA COUNTRY-LEVEL PROJECTS

(WINDOW 2)

### ● BURUNDI

#### Flood and Landslide Preparedness to Improve Community Resilience

ACP-EU NDRR Support: **\$744,000**

Duration: **06/2015 – 06/2019**

The aim of the project is to strengthen the resilience of vulnerable communities in Burundi to flood and landslides, through developing early warning and early action mechanisms, based on improved weather forecasts and enhanced capacities of local authorities in 56 selected high-risk communities.

The conflict in Burundi resulted in a delay in the commencement of the project, but operations resumed in January 2017. The Burundi Red Cross and the International Federation of Red Cross and Red Crescent Societies will implement activities that contribute to setting up community-managed Early Warning Mechanisms and improved weather forecasts, increasing community awareness and building the capacity of local authorities, and capturing and disseminating learning on DRR and disaster risk financing.

### ● CAMEROON

#### Integrating Climate and Disaster Risk Considerations into Development Planning

ACP-EU NDRR Support: **\$400,000**

Duration: **06/2018 – 02/2020**

The project builds on the first steps taken by the Government of Cameroon to integrate climate and disaster risk considerations into development planning under the lead of the Ministry of Economy, Planning and Regional Development (MINEPAT).

The project informs the implementation of the World Bank-financed \$160 million Cameroon Inclusive and Resilient Cities Development Project (PDVIR), which was approved in August 2017, and supports the government's efforts to improve urban living conditions and resilience to natural hazards in seven cities. It will achieve this by providing disaster risk assessments of selected beneficiary cities, and by providing technical assistance to municipalities on incorporating climate and disaster risk information into urban planning and investments.

The project also strengthens the capacity of the Government of Cameroon to apply more broadly the Guide to Integrate Climate and Disaster Risk into Development Planning, which was developed jointly by MINEPAT and GFDRR. Trainings on the planning of resilient development will be completed and delivered to government officials at the national and local level. In addition, an Understanding Risk Program will be developed in collaboration with the University of Yaoundé and delivered to Cameroonian students and professionals. The Program will include courses on risk assessment/modelling with a focus on floods and landslides, and on the integration of disaster risk information into urban planning,

The project has started to engage with the various ministries involved to start the implementation of activities, and has initiated the procurement process for key consultancies.



## AFRICA COUNTRY-LEVEL PROJECTS

(WINDOW 2)

### ● DEMOCRATIC REPUBLIC OF THE CONGO

#### Strengthening Hydrometeorological and Climate Services

ACP-EU NDRR Support: **\$3,000,000.**  
Duration: **08/2016 – 12/2019**

The objective of the project is to improve the services provided by the Democratic Republic of Congo’s National Hydrological and Meteorological Service, MettelSat. The activity is an important element of the Africa Regional Framework Program of the World Meteorological Organization – African Development Bank. The project is also aligned with the Climate Risk and Early Warning Systems (CREWS) Initiative which was launched during the UNFCCC COP23.

Program activities strengthen the institutional and regulatory capacity of MettelSat, modernizing the facilities and infrastructure used for observation and forecasting, and improving the delivery of hydro-met services.

While project implementation was delayed, work is ongoing for rapid project implementation after July 2018. Implementation support missions proceeded in July and November 2017 for both MettelSat and users, to identify gaps and users’ needs. In addition, an institutional analysis was carried out.

### ● DEMOCRATIC REPUBLIC OF THE CONGO

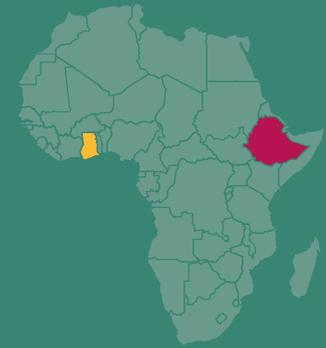
#### Kinshasa Urban Development and Resilient Interventions

ACP-EU NDRR Support: **\$1,000,000**  
Duration: **09/2017 – 04/2019**

The project supports an in-depth study on disaster risk in Kinshasa, with a focus on enhancing resilience to flood, landslide and erosion risk. The study will inform the \$150 million World Bank-funded Kinshasa Urban Development and Resilience Project, which will support the Government of the Democratic Republic of the Congo in improving living conditions in selected poor and vulnerable neighborhoods. Selected investments will be proofed against climate change and disaster risk, through the design of climate-proof infrastructures- and the dissemination of good practice.

The study will assess flood risk, landslide and erosion risk, with a focus on the N’djili River in Kinshasa. In addition, the project will develop integrated investment options for the Kinshasa Urban Development and Resilience Project, with studies of their social and environmental impact. The project will also generate local information on how disaster and climate resilience can be mainstreamed in infrastructure investments.

Two missions were undertaken to finalize the descriptions of activities. The study started in September 2018.



## AFRICA COUNTRY-LEVEL PROJECTS

(WINDOW 2)

### ● ETHIOPIA

#### Building Capacity for Woreda DDR and CCA

ACP-EU NDRR Support: **\$750,000.**  
Duration: **07/2015 – 09/2017**

The project supported the National DRM Commission in completing disaster risk profiles of 27 selected Woredas (districts), and enhancing institutional capacity for disaster risk profiling, mitigation, adaptation, and contingency planning at the Woreda level.

Improved disaster risk profiles, preparedness plans, and contingency plans were developed for all of the 27 selected Woredas. The profiles were added to the government's risk profile database, and lessons learned on the compilation and use of DRR information were disseminated in the Woredas.

To mainstream DRM further, 325 government staff were trained in data collection, and 575 government staff were trained on analyzing, interpreting and validating data, as well as on developing DRM plans.

### ● GHANA

#### Supporting Evidence-Based Decision Making for a Clean, Resilient and Inclusive Greater Accra

ACP-EU NDRR Support: **\$300,000**  
Duration: **12/2017 – 12/2018**

The project supports the preparation of the World Bank-financed Greater Accra Resilient and Integrated Development project, which aims to strengthen flood and solid waste management and improve the living conditions of the most vulnerable communities in the Odaw River Basin of the Greater Accra Region.

The ACP-EU NDRR project supports policy makers in identifying flood management and drainage infrastructure that can be improved. The project has provided support on the design of flood management, drainage and solid water infrastructure, by analyzing and identifying possibly intervention areas, and by reviewing pre-feasibility studies of the intended interventions in respective sectors. These efforts have led to the identification of investments options which are implementable, cost-effective, socially acceptable, and environmentally sustainable.



## AFRICA COUNTRY-LEVEL PROJECTS

(WINDOW 2)

### ● MOZAMBIQUE

#### Integration of DRR and CCA into District Development Plans

ACP-EU NDRR Support: **\$580,300**  
Duration: **09/2015 – 07/2018**

The project, implemented by World Vision, targeted three districts in the Gaza Province - Chibuto, Chókwè, Guijá - in Mozambique, to build the capacity of communities to implement community-based DRM. An estimated 25,000 people in 32 communities were reached. In addition, the project supported district and national institutions in integrating DRR and CCA into development planning.

At the start of the project, a baseline study was conducted in the 32 targeted communities to assess DRR methodologies. The study found that only some of the communities had local DRM communities in place. Technical workshops and advocacy meetings were also organized to provide key stakeholders with information on planned activities.

Key outcomes of the project included the development of a methodology and training manual for community-based DRM activities, a methodology to mainstream DRR and CCA in District Development Plans, and revised guidelines to develop Local Adaptation Plans.

In addition, training on the new methodology for community-based DRM activities was provided to ten technicians from the National Institute for Disaster Management and government officers from the three districts. These officials in turn trained members of the 32 target communities on hazard, vulnerability, and capacity analysis.

The project is described in greater detail in an In Focus feature on page 19.

### ● REPUBLIC OF CONGO

#### Integrating Urban Resilience into Poor Neighborhood Upgrading Activities in Brazzaville and Pointe Noire

ACP-EU NDRR Support: **\$300,000**  
Duration: **11/2017 – 11/2019**

The project integrates urban resilience into the design and implementation of the World Bank-funded Urban Development and Poor Neighborhood Upgrading project (DURQuaP), and builds capacity and develops tools for central and local governments to be better prepared to disaster risks.

The DURQuaP, active since April 2017, improves access to infrastructure and basic services for people living in selected unplanned settlements in Brazzaville and Pointe Noire, and strengthens government and municipal capacity for urban upgrading. DURQuaP has started technical and environmental studies for the construction of roads, and social studies on the rehabilitation of anti-erosion works.

The ACP-EU NDRR Funded project has started community-mapping activities on the ground. In addition, two community leaders from Pointe Noire and Brazzaville as well as one staff member from the DURQuaP implementation unit have been trained on the basic tools of disaster risk and community mapping.



## AFRICA COUNTRY-LEVEL PROJECTS

(WINDOW 2)

### ● RWANDA

#### Building Resilience to Flood Hazards in North-West Rwanda

ACP-EU NDRR Support: **\$450,000**

Duration: **11/2017 – 05/2019**

The project aims to develop an operational flood early warning system for the Sebeya River Basin in North-West Rwanda, an area which has historically witnessed deadly floods. This system will be embedded in a new national early warning platform, which can be extended to provide early warnings of hydrometeorological hazards across the country by adding further components and models. The project is being undertaken as part of the World Bank's Landscape Approach to Forest Restoration and Conservation Project, which aims to promote flood risk reduction through land restoration activities.

An inception report has been produced, data collected, detailed topographic surveys are being conducted, and the platform software has been installed. Sophisticated models will provide operational flood forecasts, which use new hydrometeorological monitoring stations purchased by the project, improved radar-rainfall observations, and advanced precipitation forecasts. Flood hazard maps will be produced to identify disaster-prone communities and sectors. In these areas, support will be provided for the improvement of national and local development plans, and for the design and implementation of flood mitigation measures.

Once operational, the system will provide warnings through a new smart-phone app and other communication channels. Training will be provided to strengthen the capacity of local communities and national agencies to respond to emergencies. This project will serve as a demonstration of early warning technologies and their role in reducing the devastating costs of floods and other disasters.

### ● SIERRA LEONE

#### Supporting Community-Based DRR

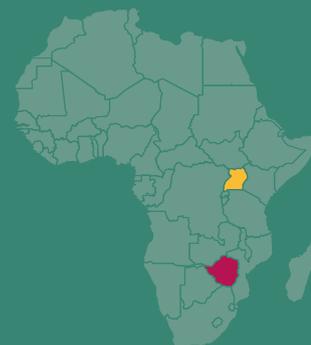
ACP-EU NDRR Support: **\$700,000**

Duration: **10/2012 – 10/2018**

This project contributes to the integration of DRR and CCA in development strategies in Sierra Leone. The project builds the capacity of targeted communities to implement community-based DRM, and provides technical assistance to district and national institutions to integrate DRR and CCA in development planning.

The project was suspended during the Ebola outbreak in 2014-2015, but is now being implemented. Before the Ebola outbreak, in the fall of 2013, a capacity building workshop on PDNAs was held. In July 2014 a two day "experience sharing meeting" was convened for members of Sierra Leone's National DRR Platform and officials from the Ghanaian National Disaster Management Organization.

Ongoing activities include participatory urban risk assessments for three cities, which assess risks, describe hazards, and identify priority DRR needs and priority investments. An inception report has been prepared, and qualitative and quantitative risk assessments were developed. Work is ongoing on a report describing DRR measures related to urban resilience, and on a cost-benefit analysis for DRR measures.



## AFRICA COUNTRY-LEVEL PROJECTS

(WINDOW 2)

### ● ZIMBABWE

#### Mainstreaming DRR and CCA into Local Development Planning through the Zambezi River Basin Initiative

ACP-EU NDRR Support: **\$499,850**  
 Duration: **09/2015 – 06/2018**

The project supported the integration of DRR and CCA in the local development planning processes at village, ward and district levels in the Kariba district in Zimbabwe. The World Bank and the Zimbabwe Red Cross Society implemented activities in 9 villages – three in each of the three high-risk rural wards.

Despite heavy rains in the first quarter of 2017, which delayed the implementation of activities, the activities have been successfully completed. The project significantly contributed to the mainstreaming of DRR and CCA into local development planning, showcased by the development of the Nyaminyami DRM plan.

Other examples of achievements include successfully promoting DRR activities, for example through the identification of 16 DRR Champions who carried out disaster risk awareness activities in all three wards. In addition, DRR information was compiled and disseminated, by DRR public awareness campaigns through national radio and newspapers among other methods. Early warning practices have been improved, through measures such as the rehabilitation of the 2-way Very High Frequency System used for early warning communication, and by ensuring that fishermen receive daily SMS-alerts generated by the Kariba Meteorological Services Department.

### ● UGANDA

#### Risk Assessment and Resilience Action Plan

ACP-EU NDRR  
 Support: **\$650,000**  
 Duration: **04/2015 – 09/2019**

The project improves the understanding of national disaster risks in Uganda, improves community-resilience, mainstream multi-sectoral DRR and CCA considerations at the community level, and measures progress towards building resilience.

A flood risk assessment for the Kasese District was carried out by technical experts from the Makerere University, to identify the factors associated with the flooding of the Nyamwamba River. The report identified possible risk mitigation and community resilience measures, which were later assessed further in an Environmental and Societal Impact Assessment. The capacity of the College of Engineering, Design, Art and Technology at the Makerere University was enhanced through participation in the project.

A guiding document was developed in close consultation with the Kampala Capital City Authority, indicating the options for technical assistance activities in DRM to be implemented during the remainder of the project. Identified activities include the development of an overarching DRM and climate resilience strategy for Kampala city, the formulation of basic emergency preparedness and disaster response recommendations, and training on risk-informed land used planning.



## AFRICA POST-DISASTER, CAPACITY BUILDING & RECOVERY PROJECTS

(WINDOW 3)

### ● SIERRA LEONE

#### Post-Mudslides and Floods Rapid Damage and Loss Assessment

ACP-EU NDRR Contribution: **\$400,000**

Duration: **08/2017 – 08/2018**

On 14 August 2017, a tropical convergence in the Regent Area on the outskirts of Sierra Leone's capital of Freetown resulted in a section of Sugar Loaf mountain coming down, leading to mudslides and floods that killed 493 people and left an additional 600 people missing and over 3,000 people homeless. In the days following the event, heavy rainfall continued to fall over Freetown, increasing mudslides and landslides.

The Government of Sierra Leone requested support to undertake a Post-Mudslides and Floods Rapid Damage and Loss Assessment, and to develop a Floods Recovery Framework.

The Assessment established that the total economic value of the effects of landslides and floods was \$31,65 million, with the housing, social protection, and health sectors most affected. The assessment informed a Recovery Framework, helping the Government to define and align recovery priorities, and established a sequenced and prioritized framework of recovery interventions, also informing investment support by external partners.

The Rapid Damage and Loss Assessment is available at: <https://www.gfdrr.org/sierraleone-dala2017>

### ● SOMALIA

#### Drought Impact and Needs Assessment

ACP-EU NDRR Contribution: **\$700,000**

Duration: **09/2017 – 05/2018**

The 2016-2017 drought brought Somalia to the brink of famine, leaving an estimated 6.7 million people acutely food insecure and in need of humanitarian assistance. The Federal Government of Somalia requested support from the World Bank/GFDRR to, together with the EU and UNDP, to undertake a comprehensive Drought Impact & Needs Assessment (DINA).

The DINA estimated that the damages, losses, and needs resulting from the drought amounted to \$1,02 billion, losses to \$3,25 billion, and total recovery needs to \$1,77 billion. These assessments provide input into the Resilient Recovery Framework, which sets out a sequenced and prioritized framework for recovery interventions. This Framework can inform investments supported by external partners.

The Volumes of the report are available online:

Volume I: <https://www.gfdrr.org/somalia-dina-volume1>

Volume II: <https://www.gfdrr.org/somalia-dina-volume2>

Volume III: <https://www.gfdrr.org/somalia-dina-volume3>

A feature story on the project is available online:

<https://www.gfdrr.org/somalia-engaging-early-and-together>

The project is described in greater detail in an In Focus feature on page 20



## CARIBBEAN COUNTRY-LEVEL PROJECTS

(WINDOW 2)

### ● BELIZE

#### Belize Disaster Risk Financing Program

ACP-EU NDRR Contribution: **\$273,000**  
Duration: **05/2015 – 06/2018**

The project helped the Ministry of Finance of Belize to better understand and manage the potential fiscal impacts of disasters and to identify cost-effective financial protection options.

The project delivered baseline information on historical losses and disaster-related government expenditures within the past 15 years, as well as two Country Disaster Risk Profiles on earthquake and windstorm risks at the national level, and a fiscal risk profile. Based in part on a review of the domestic insurance market, a report with options for a disaster risk finance strategy was delivered and discussed with the Government. Lastly, training on the implementation of a disaster risk finance strategy was organized for regional stakeholders in October 2017.

The project triggered interest in DRM, exemplified by the participation of counterparts in Belize’s Ministry of Finance at the May 2018 Understanding Risk Conference, and by the conversations Belize’s Insurance Regulator has on collaboration with the insurance industry to increase the affordability and availability of catastrophe insurance.

The report, with recommendations for advancing national DRF strategies, is available at: <https://www.gfdrr.org/sites/default/files/publication/125550-WP-DRFTA-Report-Belize-LowRes-PUBLIC.pdf>

The project is described in greater detail in an In Focus feature on page 25.

### ● DOMINICAN REPUBLIC

#### Building Physical and Fiscal Resilience of the Dominican Republic to Ensure Shared Prosperity

ACP-EU NDRR Contribution: **\$900,000**  
Duration: **12/2016 – 07/2019**

This project improves the capacity of the Government of the Dominican Republic to build physical and fiscal resilience to disasters, in two ways.

Firstly, the project promotes DRR policies in key sectors and enhances the capacity of the Ministry of Finance for disaster risk financing. Activities to date include the development of Country Disaster Risk Profiles for earthquakes and hurricanes, and the drafting of two knowledge notes on liabilities associated with disasters, and on financial protection mechanisms. These activities inform the preparation of a financial protection strategy for Dominica.

A Working Policy Paper on the impact of hurricane strikes on short-term economic activity in the Dominican Republic was published. In addition, work is ongoing on a methodology and tools to quantify economic losses from disasters in the Dominican Republic.

Secondly, the project promotes the development of DRM policies that will contribute to shared prosperity. A study was conducted on the impact of disasters on wellbeing indicators, which was presented to the Minister of Economics, Planning and Development. Work has also started on a baseline survey that will support an analysis of the impacts of disasters on poverty and welfare.

The Working Policy Paper on the impact of hurricane strikes on economic activity is available at: <http://wrlld.bg/LWdE30mhSuZ>

## CARIBBEAN COUNTRY-LEVEL PROJECTS

(WINDOW 2)



### ● DOMINICAN REPUBLIC

#### Identifying Risk to Protect Schools in the Dominican Republic

ACP-EU NDRR Contribution: **\$638,028**

Duration: **04/2015-10/2017**

The project strengthened the capacity of the Government of the Dominican Republic to evaluate and map the vulnerability of critical infrastructure.

The project strengthened the capacity of the Ministry of Education to evaluate the disaster risk public schools face, using the Safe School Index which was applied to 48 schools. Hazard maps on the risk of drought, flooding and wildfire have been produced for the 48 schools, and 56 geospatial layers have been enhanced and are ready for the mapping of schools.

In addition, 6 regional commissions were trained and certified by the Ministry of Education, to replicate the Safe School Index in other schools in the country. All delegates of the National Emergency Commission completed Geographic Information System- and Open-Data Platform training to enable them to produce and use basic hazard maps of schools.

Two manuals on drought and flood maps were produced, to promote the continuation of capacity-building activities after the end of the project.

### ● GRENADA

#### Grenada Disaster Risk Financing Program

ACP-EU NDRR Contribution: **\$273,000**

Duration: **05/2015 - 06/2018**

The project supported the Government of Grenada in better understanding and managing the potential fiscal impacts of disasters, and to identify cost-effective financial protection options.

The project delivered baseline information on historical losses and disaster-related government expenditures in the past 15 years, as well as two Country Disaster Risk Profiles on earthquake and windstorm risks at the national level, and a fiscal risk profile. Based in part on a review of the domestic insurance market, a report with options for a disaster risk finance strategy was delivered and discussed with the Government. Finally, training on the implementation of a disaster risk finance strategy was organized for regional stakeholders in October 2017.

The project triggered interest in DRM, exemplified by the participation of counterparts of Grenada's Ministry of Finance at the May 2018 Understanding Risk Conference. The Ministry of Finance has also increased its contingency reserves held to be used in case of a disaster, and the Insurance Regulator is engaging in conversations with the insurance industry on the availability and affordability of catastrophe insurance.

The report with recommendations for advancing national DRF strategies is available at: [https://www.gfdr.org/sites/default/files/publication/125551-WP-DRFTA-Report-Grenada-Final2018-LowRes-PUBLIC\\_0.pdf](https://www.gfdr.org/sites/default/files/publication/125551-WP-DRFTA-Report-Grenada-Final2018-LowRes-PUBLIC_0.pdf)

The project is described in greater detail in an In Focus feature on page 25.



## CARIBBEAN COUNTRY-LEVEL PROJECTS

(WINDOW 2)

### ● JAMAICA

#### Strengthening DRM and Climate Resilience in Jamaica's Development Planning Process

ACP-EU NDRR Contribution: **\$859,849**  
Duration: **01/2015 – 02/2020**

The primary objective of the project was to strengthen Jamaica's DRM framework. Sub-objectives were the mainstreaming of DRM in policy development, improving the application of disaster risk analysis in selected sectors, and strengthening institutional capacity for disaster vulnerability reduction. The results of the project contribute to the World Bank's ongoing "Jamaica Disaster Vulnerability Reduction Project."

Now completed, the project helped Jamaica's Ministry of Transport conduct an analysis of the impact of floods and hazards on the road network and transport infrastructure of Jamaica. The project also finalized Guidelines for Coastal Protection and Beach Restoration. A National Strategy for Resettlement necessitated by natural disasters was finalized in collaboration with government agencies and Ministries.

Lastly, the project facilitated an analysis of the gaps in capacity building for emergency preparedness. This analysis could feed into a future training plan for emergency preparedness and management.

The Guidelines for Coastal Protection and Beach Restoration are available at: <https://www.gfdr.org/jamaica-coastal-mgmt-beach-restoration-guidelines>

The project is described in greater detail in an In Focus feature on page 25.

### ● JAMAICA

#### Jamaica Disaster Risk Financing Program

ACP-EU NDRR Contribution: **\$273,000**  
Duration: **05/2015 – 06/2018**

The project supported the Government of Jamaica in better understanding and managing the potential fiscal impacts of disasters, and to identify cost-effective financial protection options.

The project delivered baseline information on historical losses and disaster-related government expenditures in the past 15 years, as well as two Country Disaster Risk Profiles on earthquake and windstorm risks at the national level, and a fiscal risk profile. Based in part on a review of the domestic insurance market, a report with options for a disaster risk finance strategy was delivered and discussed with the Government. Finally, a training on the implementation of a disaster risk finance strategy was held for regional stakeholders in October 2017.

The report with recommendations for advancing national DRF strategies is available at: <https://www.gfdr.org/sites/default/files/publication/125552-WP-DRFTA-Report-Jamaica-Final2018-LowRes-PUBLIC.pdf>

The project is described in greater detail in an In Focus feature on page 26.

## CARIBBEAN COUNTRY-LEVEL PROJECTS

(WINDOW 2)



### ● SAINT LUCIA

#### Saint Lucia Disaster Risk Financing Program

ACP-EU NDRR Contribution: **\$273,000**

Duration: **02/2015 – 06/2018**

The project supported the Government of Saint Lucia in better understanding and managing the potential fiscal impacts of disasters, and in identifying cost-effective financial protection options.

The project delivered baseline information on historical losses and disaster-related government expenditures in the past 15 years, as well as two Country Disaster Risk Profiles on earthquake and windstorm risks at the national level, and a fiscal risk profile. Based in part on a review of the domestic insurance market, a report with options for a disaster risk finance strategy was delivered and discussed with the Government. Finally, a training on the implementation of a disaster risk finance strategy was held for regional stakeholders in October 2017.

The project triggered interest in disaster risk finance. Saint Lucia approved a National Disaster Risk Financing Strategy, as well as an improved Chart of Accounts to better track disaster-related expenditures. Counterparts in Saint Lucia's Ministry of Finance also attended the May 2018 Understanding Risk Conference.

The report with recommendations for advancing national DRF strategies is available at: <https://www.gfdr.org/sites/default/files/publication/125553-WP-DRFTA-Report-StLucia-Final2018-LowRes-PUBLIC.pdf>

The project is described in greater detail in an In Focus feature on page 25.

### ● SAINT LUCIA

#### Measuring the Impact of Disaster Events on Poverty and Social Vulnerability

ACP-EU NDRR Contribution: **\$175,000**

Duration: **03/2017 – 03/2019**

The project will provide an analysis of the impact of natural disasters on social vulnerability in Saint Lucia, to inform DRM strategies and policies that better target the poor and socially vulnerable in a comprehensive DRM Program.

A “disaster shocks module” has been developed, enabling the integration of disaster assessment in policy analysis. The module was piloted in Saint Lucia and will be incorporated in Living Standard Measurement Study surveys throughout the Eastern Caribbean. In addition, a Social Vulnerability Index has been developed that will contribute to the quantification of the impact of disasters on social wellbeing in Saint Lucia. The preliminary findings from the analysis were presented to the Central Statistics Office and to 60 technical experts during the Urban Resilience Conference in November 2017. In consultation with the Central Statistical Office, the project team is currently developing a methodological framework for assessing the impact of disasters on wellbeing.

Based on these analyses, recommendations will be made for DRM and social protection policies.



## CARIBBEAN COUNTRY-LEVEL PROJECTS

(WINDOW 2)

### ● SAINT LUCIA

#### Measurable Reduction of Disaster Risk Specific to Public Infrastructure in St. Lucia

ACP-EU NDRR Contribution: **\$1,300,000.**

Duration: **02/2016 – 01/2019**

The project supports the Government of Saint Lucia in better understanding the disaster risks affecting its public infrastructure, enabling it to use this information to develop a comprehensive risk reduction strategy, and to facilitate the monitoring of risk levels over time.

Under the project, tools are being developed to assess landslide, seismic, and flood hazard risk. Landslide risk assessment component tools have been developed, and a workshop on landslide risk assessment was delivered to key national geotechnical engineers. In addition, a comprehensive earthquake analysis was finalized, a review of risk and hydrology data and drainage infrastructure completed, and a multi-hazard framework developed.

In addition, a system is under development that will enable an inventory of infrastructure assets to be maintained, for the proactive management of transportation networks, based on hazard data.

### ● SURINAME

#### Greater Paramaribo Flood Risk Management Project

ACP-EU NDRR Contribution: **\$350,000**

Duration: **04/2016 – 05/2018**

The project assessed flood risk in the Greater Paramaribo area, to support the Government of Suriname in prioritizing targeted flood risk reduction investments.

The analysis of flood risks included an analysis of the type, source, and probability of flood hazards, a review of existing risk mitigation infrastructure, and an appraisal of the Government's capacity and experience in implementing and maintaining flood risk management structures. The results of the assessment were presented in April 2017 during two workshops organized in partnership with the Ministry of Public Works, Transport and Communication.

Building on the analysis, a Prioritized Flood Management Investment Plan was developed, outlining 15 potential mitigation interventions and their respective costs and benefits. In addition, a series of capacity building initiatives and trainings took place. About 150 technical government officials and stakeholders were trained on DRM and on managing coasts with natural solutions, during various events, including training on flood risk assessment and modelling, and the final result sharing workshop.

## CARIBBEAN COUNTRY-LEVEL PROJECTS

(WINDOW 2)



### ● SURINAME

#### Paramaribo Climate Resilience and Flood Management Technical Assistance

ACP-EU NDRR Contribution: **\$500,000**

Duration: **01/2018 – 02/2020**

The project builds on the findings and recommendations of the Greater Paramaribo Flood Risk Management Program, which assessed flood risk in the Greater Paramaribo Area. The project will support the Government of Suriname's efforts in initiating and implementing a new investment in flood mitigation, with a focus on the Saramacca Canal, which was identified as one of the priorities by the Paramaribo Strategic Flood Risk Assessment study.

The project seeks to reduce the risks of floods and improve the overall management of the Saramacca Canal. The project will support the Government of Suriname's efforts to implement and initiate a new investment in flood mitigation.

The target beneficiaries are the population of Paramaribo living along the 34 kilometers of the Canal. They will significantly benefit from a well-functioning Canal and be significantly less exposed to flood risks. Ongoing efforts in the Greater Paramaribo Area will reduce the impact of recurrent flooding, while taking into consideration environmental and social aspects, land acquisition, and involuntary resettlement.



## CARIBBEAN POST-DISASTER, CAPACITY BUILDING & RECOVERY PROJECTS

(WINDOW 3)

### ● ANTIGUA AND BARBUDA

#### Hurricane Irma Post-Disaster Needs Assessment

ACP-EU NDRR Contribution: **\$250,000**  
Duration: **09/2017 – 01/2019**

During the night of 5 and 6 September 2017, Hurricane Irma, the most powerful category 5 Hurricane recorded in the Eastern Atlantic Ocean, struck the state of Antigua and Barbuda.

Following an official government request for post-disaster assistance, the World Bank/GFDRR, the EU, and UNDP together with the Caribbean Disaster Emergency Management Agency (CDEMA), supported the government in undertaking a PDNA.

The PDNA established the damages, losses and needs resulting from Hurricane Irma, and provided input for a recovery strategy that is representative of the needs and priorities of the affected communities. The PDNA estimated that losses and damages amount to \$155 million and recovery and reconstruction needs to \$222 million.

Following the completion of the PDNA report, the project supported the government in its recovery planning and programming of reconstruction funding. Resources mobilized from financial institutions and development partners included \$5.9 million from the EU for the reconstruction of 150 houses in Barbuda.

The executive summary of the PDNA is available at: <https://www.gfdr.org/antigua-and-barbuda-needs-assessment-irma>

### ● DOMINICA

#### Hurricane Maria Post Disaster Assessment and Support to Recovery Planning

ACP-EU NDRR Contribution: **\$250,000**  
Duration: **09/2017 – 10/2018**

On 18 September 2017, Tropical Cyclone Maria made landfall on Dominica as a category 5 storm, with winds exceeding 277 km/h. Following an official request from the government of Dominica for post-disaster assistance, the World Bank/GFDRR, the EU, and the UNDP, in close collaboration CDEMA and the Caribbean Development Bank, supported the Government of Dominica in undertaking a post-disaster assessment.

The PDNA established the damages, losses and needs resulting from Hurricane Maria, and identified recovery needs. The PDNA estimated the total damages in Dominica at \$930,9 million, and losses at \$380,2 million. The PDNA informed the overall recovery action plan and strategy in Dominica.

The PDNA results were presented at a CARICOM-UN High Level Pledging Conference in New York City in November 2017, to mobilize support and pledges to help Caribbean countries with reconstruction and resilience building efforts. Dominica secured two emergency support operations from the World Bank totaling \$65 million for restoring agriculture, livelihoods, strengthening resilience, and rebuilding houses destroyed by Hurricane Maria, among other assistance. In addition, the World Bank provided \$31 million in additional financing to the Dominica Disaster Vulnerability Reduction Project.

The PDNA is available at: <https://www.gfdr.org/dominica-pdna-hurricanemaria>

## CARIBBEAN POST-DISASTER, CAPACITY BUILDING & RECOVERY PROJECTS

(WINDOW 3)



### ● DOMINICA

#### Enhancing Resilient Reconstruction

ACP-EU NDRR Contribution: **\$700,000**

Duration: **05/2018 – 01/2020**

Building on the recommendations of the Post-Disaster Needs Assessment following Hurricane Maria, which hit Dominica on 18 September 2017, the ACP-EU NDRR Program is supporting the project Enhancing Resilient Reconstruction in Dominica.

The Government of Dominica initiated multiple large-scale housing reconstruction programs, one of which is the World Bank-financed \$40 million Housing Recovery Project. The ACP-EU NDRR Program supports the critical early-implementation stage of the Housing Reconstruction Project, and seeks, more broadly, to improve the application and uptake of resilient building practices and build-back-better considerations within the housing sector.

The ACP-EU NDRR project seeks to advance the key elements that are necessary for a successful national housing recovery program. Specifically, it will focus on developing a Management Information System that supports both the housing recovery program and the physical planning process; on developing and completing a transparent beneficiary identification and selection for the Housing Recovery Project; and on providing resilient reconstruction guidance through hands-on training to staff in the Technical Assistance Centers and to local building contractors and artisans.

All activities are being developed in coordination with the National Housing Task Force, chaired by the Cabinet Secretary of Dominica, and are complementary to those of the other development partners present in the country.

## THE PACIFIC REGIONAL PROJECTS

(WINDOW 1)



### ● PACIFIC ISLAND STATES

#### Technical Assistance Building Climate and Disaster Resilience in the Pacific

ACP-EU NDRR Contribution: **\$1,000,000**  
Duration: **10/2014 – 02/2019**

The project is active in selected Pacific Island States, namely the Federated States of Micronesia, Fiji, Republic of the Marshall Islands, Samoa, Solomon Islands, Tonga and Vanuatu. The tools and methodologies developed through the project contribute to the larger World Bank-funded Pacific Resilience Program, which supports investments in infrastructure.

The project firstly aims to increase the capacity of these states to mainstream DRM and CCA in the design of infrastructure investments. To this end, a knowledge note on Supporting Road Network Vulnerability Assessments in Pacific Island Countries, and on Urban Flood Risk Management in the Pacific, were finalized. In Fiji, a risk assessment of the health and education sector was conducted, and a background note on mainstreaming DRM in human settlements was developed. In Samoa, technical assistance was provided for a road vulnerability assessment. In the Republic of the Marshall Islands, support was provided for a rapid assessment of coastal hazards and disaster risk. In Samoa, Tonga, and Vanuatu, rapid assessments of school buildings were completed.

Secondly, the project will undertake a needs assessment for providing multi-hazard early warning services, and develop an investment plan for the strengthening of EWS in the Pacific. A needs assessment report was conducted in Samoa, Tonga, Vanuatu and the Republic of the Marshall Islands.

The Knowledge Note on Road Network Vulnerability Assessments is available at: <https://www.gfdrr.org/road-network-vulnerability-assessments-in-PICs>

The Knowledge Note on Urban Flood Risk Management is available at: <https://www.gfdrr.org/urbanfloodriskmgmt-pacific>

### ● PACIFIC ISLAND STATES

#### Utilizing Unmanned Aerial Vehicles for Disaster Assessments in the Pacific Islands

ACP-EU NDRR Contribution: **\$500,000**  
Duration: **01/2017 – 12/2018**

The project develops the capacity and readiness of Fiji and Tonga to deploy Unmanned Aerial Vehicles (UAVs) for disaster and climate risk assessments, and to rapidly identify damage to the physical environment in post-disaster situations.

The UAVs were tested, and the lessons learned included in a document with best practices on the use of UAVs, and in a roadmap guiding the implementation of a UAV survey to generate high-resolution images. The main island of Tonga, Tongatapu, was assessed using UAVs in October 2017.

The project led to an ACP-EU NDRR follow-up activity under Window 3, using UAVs in February 2018 to assess in the damage caused in Tonga by Tropical Cyclone Gita. Comparing the images before and after the disaster informed the development of a Recovery Framework for Tonga and enabled the creation of a post-disaster baseline map that could be incrementally updated through the recovery and reconstruction phases.

The UAV images of Tonga are available at: <https://map.openaerialmap.org/#/-175.078125,-21.289374355860424,6/square/20002233?k=30r0sv>

A Results in Resilience feature story is available at: <https://www.gfdrr.org/sites/default/files/publication/UAV4Resilience.pdf>

The project is described in greater detail in an In Focus feature on page 32.



## THE PACIFIC REGIONAL PROJECTS

(WINDOW 1)

### ● REPUBLIC OF THE MARSHALL ISLANDS & THE FEDERATED STATES OF MICRONESIA

#### Community Vulnerability Mapping in the Republic of Marshall Islands and the Federated States of Micronesia

ACP-EU NDRR Contribution: **\$720,000**

Duration: **02/2017 – 02/2020**

The project, managed by the International Organization for Migration (IOM), enhances the resilience of selected communities to disaster risk, and assists them in adapting to climate change.

While initially delayed, the project is now being implemented. In February 2018, the IOM raised awareness about the project with the leaders of Ebeye in the Republic of the Marshall Islands (RMI), to facilitate joint decision-making about the initiative. Hazard, Vulnerability and Capacity Mapping (HVCM) and EWS assessments are planned for 10 communities. In April 2018, assessments were conducted for Bouj, RMI, with the participation of 17 community members.

Other planned activities include facilitating the design of effective EWS, geo-tagging and evaluating the risks posed to public buildings such as schools and hospitals in the Federated States of Micronesia (FSM) and RMI, and providing support to the RMI Government to develop a holistic, community-based DRM strategy.

## THE PACIFIC COUNTRY-LEVEL PROJECTS

(WINDOW 2)

### ● FIJI

#### Climate Vulnerability Assessment

ACP-EU NDRR Contribution: **\$450,000**

Duration: **07/2017-06/2018**

The Fiji Climate Vulnerability Assessment was implemented jointly by the World Bank and the Ministry of Economy of Fiji, to better understand and raise awareness of Fiji's vulnerability to geophysical and climate induced hazards, and to develop recommendations to inform the investment planning process.

The final report Climate Vulnerability Assessment: Making Fiji Climate Resilient includes projections of the potential impacts of climate change on Fiji in the coming decades, and analyses the impacts on the economy, health, and food security. The report sets out clear priorities and recommendations that could inform the national development priorities, and Fiji's sector investment plans for the short, medium, and long term. The assessment methodology may be replicated through the Small Island States Resilience Initiative (SISRI) in other Pacific Island Countries and Small Island Developing States.

The report helped build advocacy on the vulnerability of Fiji to climate change and was launched at UNFCCC COP23 under Fiji's historical presidency of this major global event. It was complemented by a 360-degree virtual reality film "Our Home, Our People."

The final report of the Climate Vulnerability Assessment is available at: <https://www.gfdr.org/fiji-cva-fullreport>

A video accompanying the final report, is available at: <https://youtu.be/toOLqRJDV8k>

A Results in Resilience Feature Story on the Fiji Climate Vulnerability is available at: <https://www.gfdr.org/fiji-cva-resultsinresilience>

The project is described in greater detail in an In Focus feature on page 31.

### ● KIRIBATI

#### Strengthening Atolls for Climate-Resilient Future Urban Expansion

ACP-EU NDRR Contribution: **\$455,000**

Duration: **07/2017 - 02/2019**

The project supports the Government of Kiribati in identifying key factors and planning for climate resilient allocation and financing of safe and affordable land for urban expansion, that meets the needs and priorities of low- to low-middle income households.

The project analyzes the drivers of urbanization in Kiribati, and how these are affected by climate change impacts and disaster risks. The project also assesses policy, technical, and financing options in Temaiku for a pilot climate-resilient, affordable, greenfield subdivision on underdeveloped and urban state land, which could then serve as an example for other climate-resilient settlements in Kiribati. The project will also document appropriate policies, systems and procedures for future replication and the potential scale-up of climate-resilient settlements in Kiribati.

Under the project, a safe and affordable housing needs and priority survey instrument was developed, which was reviewed by the National Statistics Office and conducted by 30 trained enumerators in 476 households in seven communities in May and June 2018. Two villages – Nanikaai and Tebikenikora – were identified for further investigations into the regulatory framework for access to land and household decision-making.

The project has also supported a technical review of the feasibility of the Temaiku Land Development Proposal, which proposes to reclaim an uninhabitable area of low-lying land in Kiribati. Three days of classroom and field training on urban management took place in Kiribati in December 2017 for 20 participants from civil society organizations and the Government.

## THE PACIFIC COUNTRY-LEVEL PROJECTS

(WINDOW 2)



### ● SOLOMON ISLANDS

#### Community Resilience to Climate Change and Disaster Risk Project

ACP-EU NDRR Contribution: **\$2,000,000**  
Duration: **04/2014 – 04/2019**

The project increases the capacity of selected communities for resilience to the impacts of climate change and natural hazards.

The first project component is the integration of CCA and DRR in government policies and operations. A review of the National Disaster Management Plan of 2010 has been completed, and endorsed by the National Disaster Council (NDC) in April 2018.

The second component is the strengthening of climate and disaster risk information. The project supports seismic monitoring, and has procured equipment for five monitoring stations. The project also laid the foundations of a national risk information system, and the database for risk information management is being strengthened. An emergency radio communication system is now in operation.

The third component is the promotion of investments in DRR and CCA. Community DRM planning has been completed for all 55 targeted communities, which selected their priority investment projects based on risk information. Six community-led water supply investments have been completed, and 40 sub-projects - on water supply, evacuation shelters, all-season access to footbridges, and shoreline protection - are in various stages of implementation.

### ● SOLOMON ISLANDS

#### Honiara Flood Risk Study and Management Plan

ACP-EU NDRR Contribution: **\$500,000**  
Duration: **06/2017 – 04/2019**

Flooding in April 2014 affected some 80 percent of the population of Honiara, the capital city of the Solomon Islands. This project investigates urban flood risk and provides quality information on how flood risk can be better managed and reduced in the Greater Honiara area. It builds and strengthens the city's disaster preparedness and resilience to weather extremes.

Work has started on the preparation of a flood risk study. Based on this, the project will support planning for future flood risk, by setting out flood risk management options, and by developing a flood risk management plan which can be used to prioritize and inform future investments.

## THE PACIFIC COUNTRY-LEVEL PROJECTS

(WINDOW 2)

### ● TONGA

#### Cyclone Ian Reconstruction and Climate Resilience Project

ACP-EU NDRR Contribution: **\$2,000,000**

Duration: **04/2015 – 11/2018**

The project supports the National Tropical Cyclone Ian Response Plan. It strengthens the climate resilience of housing and selected community facilities for the affected population of the Ha'apai Islands, and strengthens the Government of Tonga's preparedness to recover from future natural disasters.

The project helps to strengthen the resilience of homes and communities, supporting the Ministry of Finance and National Planning in the reconstruction of houses able to withstand wind speeds of at least 250 km/h. A National Housing Reconstruction Policy and a Housing Reconstruction Strategy were drafted and submitted to the Cabinet of Tonga. A database with technical design documents for Government-led housing reconstruction, as well as a post-disaster housing-damage-assessment data collection tool, were developed. In the process, 50 government officials were trained, including 5 women.

The project ran a public awareness campaign on building code compliance, and is updating Tonga's building code. The project also assessed and mapped coastal hazard risks to inform reconstruction planning and the building of resilience within the affected areas of Ha'apai.

Lastly, the project helped to improve Tonga's Disaster Recovery and Reconstruction Framework. The 2010 National Emergency Management Plan and the 2007 Emergency Management Act were reviewed and updated, and an operations manual detailing planning and implementation arrangements for disaster recovery and reconstruction was developed.

### ● VANUATU

#### Increasing Resilience to Climate Change and Natural Hazards in Vanuatu

ACP-EU NDRR Contribution: **\$3,000,000**

Duration: **08/2013 – 06/2018**

The project promoted the integration of disaster risk reduction and CCA into development, building on activities of the EU Global Climate Change Alliance.

The first component of the project was institutional strengthening for DRM. Provincial Disaster Centers were constructed in the Tafea and Torba province, a review of the National Disaster Act was completed, and sheds for 8 seismic stations were constructed and equipment installed.

The second project component was increasing community resilience. Two operational manuals were developed, providing procedures for CCA and DRM projects. The Government started to implement 45 micro-projects in the island of the Tanna and Shepherd groups that were affected by Tropical Cyclone Pam, and 20 for communities in Ambae and Ambrym affected by a recent volcanic eruption.

The second component also promoted improved technologies for food crop production, establishing 14 demonstration plots of selected varieties on Tanna. In addition, it aimed to improve rural water supply, by repairing six water systems, among other measures.

## THE PACIFIC POST-DISASTER, CAPACITY BUILDING & RECOVERY PROJECTS

(WINDOW 3)



### ● TONGA

#### Rapid Damage Assessment and Recovery Framework for Tropical Cyclone Gita

ACP-EU NDRR Contribution: **\$100,000**

Duration: **03/2018 – 12/2018**

On 12 February 2018, the Kingdom of Tonga was hit by the category 4 Tropical Cyclone Gita. The main island of Tongatapu and the island of Eura bore the brunt of the storm, which caused widespread damage and directly affected almost 80 percent of the population.

Following a request from the Government of Tonga, the World Bank/GFDRR, the EU, and UNDP provided support in undertaking a Rapid Assessment and Recovery Framework, in close collaboration with the Pacific Community, the Australian Department of Foreign Affairs and Trade, and the New Zealand Ministry of Foreign Affairs and Trade.

The rapid assessment made use of Unmanned Aerial Vehicles, which were tested during the earlier ACP-EU NDRR Window 1 project Utilizing Unmanned Aerial Vehicles for Disaster Assessments in the Pacific Islands (UAV4Resilience). The post-event images could be compared to the pre-event UAV images that were captured in October 2017 during the UAV4Resilience Project, and inform recovery and reconstruction planning. The images helped to create a post-baseline map that can be updated through the recovery and reconstruction phases.

The rapid assessment found that the total economic value of the effects caused by Tropical Cyclone Gita mounted to approximately \$164.1 million, equivalent to 37.8 percent of Tonga's nominal GDP.

The Post Disaster Rapid Assessment is available at: <https://www.gfdr.org/tonga-post-disaster-assessment-2018>

A Results in Resilience feature story is available at: <https://www.gfdr.org/sites/default/files/publication/UAV4Resilience.pdf>

The UAV images of Tonga are available at: <https://map.openaerialmap.org/#/-175.078125,-21.289374355860424,6/square/20002233?k=30r0sv>

## ALL-ACP POST-DISASTER, CAPACITY BUILDING & RECOVERY PROJECTS

(WINDOW 3)

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### Third Meeting of the Small Island States Resilience Initiative (SISRI) Practitioners' Network in Mexico City

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ACP-EU NDRR Contribution: **\$200,000**  
Duration: **03/2018 - 8/2018**

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SISRI is a global program that supports Small Island States in reducing risks to their populations, assets, ecosystems and economies from climate change and disaster. The Initiative supports investments for resilience, provides technical assistance, builds a strengthened knowledge base, and develops a community of practice. SISRI links island practitioners with one another, as well as with global knowledge on building resilience.

On 13-14 May 2018, the SISRI Practitioners' Network held its third meeting, during the 2018 Understanding Risk Conference in Mexico City. More than 70 participants including 41 practitioners from 23 countries attended the two-day event, sharing experiences and exploring approaches to resilient recovery in the aftermath of disasters.

The meeting covered a range of topics, divided into seven sessions - from post-disaster assessments, institutions, governance and policies for resilient recovery and building back better, to the involvement of the private sector, gender and social inclusion, housing, and social and financial mechanisms and instruments.

A video on the 3rd SISRI Practitioners' Network Meeting is available at: <https://youtu.be/MZhV1EaDh1c>

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### Recovery Framework Rollout in Africa and the Caribbean

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ACP-EU NDRR Contribution: **\$890,000**  
Duration: **01/2016 - 12/2018**

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The ACP-EU NDRR Program supported the rollout of a Disaster Recovery Framework (DRF) Guide in all ACP countries, through a capacity building program targeting international and regional organizations and government officials in ACP countries.

Three types of capacity building activities took place under the project: regional-level training of trainers; country-level capacity development programs; and e-learning modules complementing the DRF Guide.

Activities were successfully undertaken in multiple countries. The Government of Cabo Verde, for example, formulated a national framework for post-disaster recovery.

A wide range of PDNA/ DRF training events were conducted. Over the course of the reporting period, 324 people were trained in PDNA/DRF, and they can now train others in their countries. Events were held for a range of participants, from parliamentarians and line ministry officials to representatives from CSO's in Gambia (July 2017); Cabo Verde (November 2017); Uganda (April 2018); Fiji (April 2018); and Somalia (May 2018).

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Ambrym Volcanoes, Vanuatu / Source iStock

• ANGOLA • ANTIGUA AND BARBUDA • BELIZE • CAPE VERDE • COMOROS • BAHAMAS •

• BARBADOS • BENIN • BOTSWANA • BURKINA FASO • BURUNDI • CAMEROON •

• CENTRAL AFRICAN REPUBLIC • CHAD • CONGO (BRAZZAVILLE) • CONGO (KINSHASA) •

• COOK ISLANDS • CTE D'IVOIRE • CUBA • DJIBOUTI • DOMINICA • DOMINICAN REPUBLIC •

• ERITREA • ETHIOPIA • FIJI • GABON • GAMBIA • GHANA • GRENADA • REPUBLIC OF GUINEA •

• GUINEA-BISSAU • EQUATORIAL GUINEA • GUYANA • HAITI • JAMAICA • KENYA • KIRIBATI •

• LESOTHO • LIBERIA • MADAGASCAR • MALAWI • MALI • MARSHALL ISLANDS • MAURITANIA •

• MAURITIUS • MICRONESIA • MOZAMBIQUE • NAMIBIA • NAURU • NIGER • NIGERIA • NIUE •

• PALAU • PAPUA NEW GUINEA • RWANDA • ST. KITTS AND NEVIS • ST. LUCIA •

• ST. VINCENT AND THE GRENADINES • SOLOMON ISLANDS • SAMOA •

• SÃO TOME AND PRINCIPE • SENEGAL • SEYCHELLES • SIERRA LEONE • SOMALIA •

• SOUTH AFRICA • SUDAN • SURINAME • SWAZILAND • TANZANIA • TIMOR LESTE • TOGO •

• TONGA • TRINIDAD AND TOBAGO • TUVALU • UGANDA • VANUATU • ZAMBIA • ZIMBABWE •

## THE ACP-EU NATURAL DISASTER RISK REDUCTION PROGRAM PARTNERS

### ACP GROUP OF STATES

The African, Caribbean and Pacific Group of States (ACP) is an intergovernmental organization created by the Georgetown Agreement in 1975. It is composed of 79 African, Caribbean and Pacific states, signatories of the Cotonou Agreement (known as the “ACP-EC Partnership Agreement”), binding them to the European Union. The ACP-EU NDRR Program operates in ACP countries and regions.

Among the ACP Group’s objectives is the sustainable development of its member states and their gradual integration into the global economy. In this regard, as early as 2004 the ACP Group took the initiative to pioneer action on natural disaster reduction and resilience. It achieved this by sensitizing the European Union’s attention to the need to expand its scope from humanitarian response, to a more pro-active and holistic approach to prevention and management of natural disaster risk.

The ACP-EU NDRR Program is part of a long-standing cooperation between the ACP Group and the EU. It brings together natural disaster and climate resilience entities from the ACP regions, with specialized partners such as GFDRR, to address ACP countries’ vulnerabilities to exogenous shocks, through integrated measures on climate adaptation, environmental protection and natural disaster risk management.

For more information: [www.acp.int](http://www.acp.int)

### EUROPEAN UNION

The European Union (EU) is the leading donor of development aid and climate finance. The EU finances the NDRR Program by a grant of €54.5 million to a single-donor Trust Fund, under the 10th European Development Fund.

The EU is at the forefront of the international agenda on Resilience, supporting developing countries in preparing for, withstanding and recovering from disaster events. The EU is fully engaged in supporting the implementation of the new Agenda 2030 and the Sustainable Development Goals, the Paris Agreement and the Sendai Framework for Disaster Risk Reduction.

The EU’s efforts to reduce vulnerability and to build the resilience of regions, countries and communities, stem from the EU’s Strategy for Disaster Risk Reduction (2011), and the Action Plan on Resilience in crisis prone countries (2013) and the Action Plan on the Sendai Framework for Disaster Risk Reduction 2015-2030 (2016). These plans pool humanitarian and development resources to deliver on flagship initiatives such as the Global Alliance for Resilience in the Sahel (AGIR), Supporting the Horn of Africa’s Resilience (SHARE), Global Climate Change Alliance plus (GCCA+) and DIPECHO. In its cooperation with the ACP Group of States, the EU has put at the core of its interventions the need to reduce vulnerability and to build the resilience of regions, countries and communities.

For more information: [www.europa.eu](http://www.europa.eu)

### GLOBAL FACILITY FOR DISASTER REDUCTION AND RECOVERY

The Global Facility for Disaster Reduction and Recovery (GFDRR) manages the single-donor Trust Fund of the NDRR Program.

GFDRR is a global partnership that helps developing countries better understand and reduce their vulnerabilities to natural hazards and adapt to climate change. Working with over 400 local, national, regional, and international partners, GFDRR provides grant financing, technical assistance, training and knowledge sharing activities to mainstream disaster and climate risk management in policies and strategies. Managed by the World Bank, GFDRR is supported by 34 countries and ten international organizations.

For more information: [www.gfdr.org](http://www.gfdr.org)



Savannah in the sunset, Kenya / Source iStock

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**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